

Independent Pricing and Regulatory Tribunal

## Review of regulated retail prices and charges for electricity 2013 to 2016

Electricity — Issues Paper November 2012



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### Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

#### Submissions are due by 20 December 2012.

We would prefer to receive them electronically via our online submission form <www.ipart.nsw.gov.au/Home/Consumer\_Information/Lodge\_a\_submission>.

You can also send comments by fax to (02) 9290 2061, or by mail to:

Review of regulated retail prices and charges for electricity 2013 to 2016 Independent Pricing and Regulatory Tribunal PO Box Q290 QVB Post Office NSW 1230

Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au>. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be disclosed under the *Government Information* (*Public Access*) *Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act* 1992 (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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## 1 Introduction

While all small customers in NSW can choose their retailer and enter into a market contract for the supply of electricity, customers also have a right to remain on prices that are regulated by the Independent Pricing and Regulatory Tribunal of NSW (IPART). Over the last 2 years the number of customers remaining on regulated prices has fallen from two-thirds to around a half of all small customers in NSW.

IPART's current determination on regulated retail electricity prices will end on 30 June 2013. The NSW Government has asked us to make a new determination for the period from 1 July 2013 to 30 June 2016. We have begun our review and intend to make our determination by May 2013.

The purpose of this paper is to identify and discuss the main issues we need to consider in this review, and set out our preliminary thoughts on the approach and methodologies we will use to make the determination. We invite all interested parties to comment on these issues and preliminary views.

#### 1.1 The main challenges of this review

The period in which we will be conducting this review coincides with a period of potential change in the electricity industry. After a series of large price increases, governments are reviewing policy and regulatory settings for the electricity industry to ensure the industry operates in the long-term interests of customers. In particular, there is considerable focus on addressing the costs associated with the transmission and distribution networks (which transport electricity from the generators to customers' premises), and the costs of complying with 'green energy' schemes (such as the Carbon Pricing Mechanism and the Renewable Energy Target).

At this stage, it is not clear which policy and regulatory settings will apply over the next 3 years, and what the associated impacts on electricity prices will be. However, the steep price increases that have occurred over the past 5 years are unlikely to continue at the same rate. For example, we anticipate that the rate of increase in transmission and distribution network costs – which now make up more than half of a typical electricity bill – will be much lower than over the past 5 years (see Chapter 8 for more information). The recent increases in regulated retail electricity prices demonstrate that price regulation has not protect customers from 'price shocks' associated with changes in regulatory and policy settings. Nor can price regulation protect individual customers from general financial distress. We consider that effective retail competition – where retailers strive to offer customers products and services they value – is the best way to ensure that electricity prices are driven towards the efficient cost of retail supply. In addition, we consider that cost-effective and well-targeted customer assistance measures that are funded and delivered in a coordinated manner are the best way to assist households in financial distress.

In this review, consistent with the NSW Government's aim to facilitate competition in the NSW retail electricity market, we will seek to identify any structural impediments to competition, and address these impediments where this is possible through our determination. We will also seek to engage with retailers, consumer groups, governments and other stakeholders to identify what else can be done to ensure that retail competition works well for customers.

We consider that a well-functioning competitive market is in the long-term interests of customers. It will also reduce the need for retail price regulation, and facilitate its removal at a time the NSW Government considers appropriate.

#### 1.2 What IPART has been asked to do

The NSW Government has asked us to make a determination under section 43EB of the *Electricity Supply Act 1995* (the Act). The determination will apply to the regulated retail tariffs and charges levied by the 3 Standard Retailers in NSW:

- EnergyAustralia
- Origin Energy (trading under the Integral Energy brand name), and
- Origin Energy (trading under the Country Energy brand name).

In making the determination, we must have regard to its effect on competition in the retail electricity market, and the terms of reference provided by the Government (see Attachment A). These terms of reference require us to ensure that the prices resulting from the determination recover the efficient costs faced by each Standard Retailer in meeting the forecast demand of its customers on regulated prices. In determining these costs, we must include energy costs, retail operating costs and a retail margin. In these aspects, the terms of reference are similar to those for the 2010 determination. However, there are also some important differences. First, the terms of reference for the 2013 determination include a narrower definition of small customers. Instead of being defined as those with annual consumption of up to 160 megawatt hours (MWh), the 2013 terms of reference define them as those with annual consumption of up to 100 MWh. This lower consumption threshold still captures almost all households, but excludes some small businesses.

Second, the terms of reference for the 2013 determination provide us with some discretion in setting the energy purchase costs. Instead of requiring us to set the allowance for these costs no lower than the long run marginal cost (LRMC) of generating plant, the 2013 terms of reference specify that this allowance must be no lower than a weighted average of 75% of the LRMC and 25% of the market-based cost.

Because the terms of reference require us to set an energy purchase cost allowance with a floor of a weighted average of the LRMC and market based costs, they provide a degree of headroom in the regulated retail prices when the LRMC is higher than the market based costs. In considering whether to set the energy purchase cost allowance above the price floor, we will need to consider whether it is in the long term interests of electricity customers to include *additional* headroom.

In regulating retail prices we will have regard to the long term interest of customers by balancing:

- the efficient use of electricity by setting prices to recover efficient costs
- the promotion of efficient entry and investment in the retail market by providing an appropriate retail return and reducing any barriers to entry and customer participation in the retail market
- the need to ensure the financial viability of efficient retailers so that the retail market remains robust. In considering this we will need to account for risks faced by efficient electricity retailers.

#### **1.3 IPART's proposed approach for this determination**

In broad terms, the approach we propose for this determination includes the following 8 steps:

- 1. Carefully consider the requirements of the Act, our terms of reference and other contextual factors to ensure we understand the matters we must take into account and the objectives we must aim to achieve through the determination.
- 2. Analyse the level of competition in the retail electricity market to understand the degree of regulation necessary to protect customers from prices being materially above the efficient cost of supply while also facilitating effective competition.
- 3. Take account of the above considerations and analysis to decide on the appropriate form of regulation.
- 4. Estimate the costs that an efficient Standard Retailer is likely to incur in supplying its small retail customers on regulated prices over the determination period, including energy costs, retail operating costs and a retail margin, and considering the risks and challenges associated with forecasting these costs for this period.
- 5. Calculate the average change in regulated retail prices for each Standard Retailer taking account of the above considerations.
- 6. Review and make decisions on the level of each regulated retail non-tariff fee and charge the Standard Retailers can levy.
- 7. Provide information on the impact of our decision on customers.
- 8. Check that our determination balances the requirements of the terms of reference, including meeting the long term interests of customers and the stability of the electricity market.

#### **1.4 IPART's preliminary views on applying this approach**

While we have not made any firm decisions on the methodologies we will use in applying this approach, our preliminary view is that we should build on the broad approaches we have used in making our previous determinations, and adopt a similar 'package' approach to the form of regulation.

We consider that the approaches we have used to determine the value of the regulated retail price controls in previous determinations are robust and effective – particularly those for estimating the energy purchase costs, the retail costs and a retail margin. We also consider that there is a reasonable degree of knowledge of these methodologies among stakeholders. In addition, we consider that the our previous 'regulatory package' has resulted in prices that recover at least the efficient costs of supplying small retail customers and facilitate retail market competition.

Therefore, similar to the 2010 determination, our preliminary view is that we will design a 'regulatory package' to compensate an efficient Standard Retailer for the costs and risks faced in supplying electricity to small retail customers. This package is likely to include:

- ▼ 3 cost allowances, determined in a manner that recognises their interrelationships:
  - Energy cost allowance (including energy purchase costs, green scheme compliance costs, market fees and energy losses)
  - Retail operating cost allowance (including retail operating costs and customer acquisition costs), and
  - Retail margin allowance (reflecting any material risks not compensate for elsewhere in the regulatory package).
- An annual review of the energy purchase costs and green scheme costs included in the energy cost allowance, to manage the risk associated with forecasting these costs.
- A pass-through mechanism to allow retailers to pass through to customers, material increases or decreases in costs associated with regulatory or taxation change events that were unanticipated or uncertain at the time of making the determination.
- A weighted-average price cap that allows the Standard Retailers to recover the above cost allowances, and pass through to customers the applicable network charges. This would give the Standard Retailers the flexibility to set their own cost-reflective regulated prices subject to an overall cap on the maximum average increase in these prices.

Our initial assessment is that this regulatory package is likely to result in regulated retail prices that recover at least the efficient costs of supplying small retail customers and facilitate retail market competition.

The following chapters invite comments on how the package could be enhanced to better achieve these objectives, including how it could be amended over the course of the determination period as retail competition continues to develop. In particular, we would like to consider whether it is appropriate to move to an approach in which customers would need to actively choose to remain on regulated prices (an opt-in approach). This would involve us regulating a limited number of new cost-reflective regulated prices for each Standard Retailer. This approach would require positive action from customers who wanted access to a regulated price and would need to be accompanied by a comprehensive customer information and awareness campaign.

#### 1.5 Facilitating competition in the NSW retail electricity market

The NSW Government (along with other Australian governments) has agreed to phase out retail electricity price regulation where it can be demonstrated that effective competition exists.<sup>1</sup> The Government will decide whether to end price regulation after considering advice on the competitiveness of the market from the Australian Energy Markets Commission (AEMC). AEMC will make its recommendations in September 2013.

In anticipation of AEMC's recommendations, we consider more can be done to encourage and facilitate competition in the NSW retail electricity market. Our preliminary view is that there are opportunities for retailers, regulators and governments to improve customers' confidence in the retail electricity market, and enhance their participation in this market. For example, there are opportunities to further improve customers' understanding of electricity pricing issues, including how and when prices change and the drivers of these changes. There are also opportunities to make it easier for customers to compare, choose and switch between competing market offers, and to feel confident that they have selected the offer that best suits their needs and preferences.

We propose to engage with stakeholders to identify how the existing regulatory package could be enhanced to further facilitate competition and help improve customer confidence and participation in the competitive market, including whether to move to an opt-in approach to price regulation. We also propose to engage with stakeholders to identify and recommend other actions to facilitate competition, consistent with the Government's objectives specified in the terms of reference.

As noted above, developing the competitive retail market so that it works well for customers is in their long-term interests. It will also reduce the need for retail price regulation, and facilitate its removal at a time the NSW Government considers appropriate.

## **1.6** How and when stakeholders can provide input to IPART's review

We will conduct a public consultation process to allow stakeholders to express their views on how our proposed approach could be enhanced and comment on the issues we need to consider. This issues paper is the first stage in this process. All stakeholders and interested parties are invited to make submissions in response to this paper. These submissions are due on 20 December 2012. Details on how to make a submission can be found on page iii, at the front of this paper.

<sup>&</sup>lt;sup>1</sup> Council of Australian Governments' Meeting, *Communique*, 10 February 2006, Appendix A to Attachment B, p 8.

This issues paper is being released alongside a number of other draft methodology papers on key cost components of the review, including draft methodologies to:

- develop regulated load profiles, estimate cost input assumptions and determine an allowance for the energy purchase costs for each Standard Retailer
- estimate an appropriate retail margin for the Standard Retailers
- estimate the weighted average cost of capital (WACC) of various energy related businesses which are used as a discount rate for modelling energy costs and for estimating the retail margin.

All these papers are available on IPART's website.

We are also inviting the Standard Retailers to propose a regulated retail electricity price path over the 2013-16 regulatory period that is consistent with IPART's terms of reference for the review and our requirements under the *Electricity Supply Act 1995*. We consider it important that Standard Retailers should have the opportunity to outline to IPART and stakeholders what they see as the key issues in determining a regulated retail electricity price path that is in the long term interests of customers. This information would assist our deliberations in making the determination. We are requesting these pricing proposals by 26 November 2012.

To assist Standard Retailers in proposing a regulated retail electricity price path we have made available on our website a copy of our retail pricing model ('R model'). The model brings together the various cost components associated with supplying small retail customers to provide an estimate of retail prices.

Our information request to retailers, outlining the information that we are seeking from them, is also available on our website.

We will also meet with key stakeholders throughout the review period, and will form a working group to consider regulated retail charges.

Table 1.1 provides an indicative timetable for the review, including further opportunities for stakeholder input.

<u> </u>	
Key tasks	Time
Receive final terms of reference and post on website	28 September 2012
Release issues paper and draft methodology papers and invite submissions	14 November 2012
Receive Standard Retailers pricing proposals	26 November 2012
Hold public forum on issues paper and methodology	3 December 2012
Receive stakeholder submissions on issues paper and draft methodology paper	20 December 2012
Release draft report and determination and consultants' reports and invite stakeholder submissions	March 2013
Hold public hearing on draft report	April 2013
Receive stakeholder submissions on draft report	May 2013
Release final report and determination	May 2013

## Table 1.1Indicative timetable for IPART's 2013 review of regulated retail<br/>electricity prices

#### 1.7 Overview of issues on which IPART seeks comment

Throughout this paper, we have identified the issues on which we particularly seek stakeholder comment at this stage of the review. Stakeholders may address all or some of these issues, and are also free to raise and discuss any other issues that they feel are relevant to the terms of reference. For convenience, a full list of the issues we seek comment on is provided below:

IPART seeks comments on the following

#### Assessing retail competition

1	Is IPART's proposed approach for assessing retail market competition appropriate for this review?	30
2	What can be done to facilitate retail market competition in NSW over the 2013 determination period?	30
Det	ermining the form of regulation	
3	Is an opt-in model for all or part of this determination preferable to regulating all existing regulated prices? If we continue to regulate all existing regulated prices, how could we facilitate competition by reducing the large number of regulated prices for Country Energy?	35
4	Are our previous decisions, such as not to regulate green premiums and to restrict the introduction of new regulated prices, still appropriate?	35
5	Are there enhancements that can be made to our current Weighted Average Price Cap (WAPC) approach?	40

6	Is additional pricing protection required for Country Energy customers? If so, how can this be achieved without limiting Country Energy's ability to rationalise its regulated prices?	42
7	Are any enhancements needed to the current cost pass-through mechanism for the 2013 determination?	42
Det	ermining the energy cost allowance	
8	Is the stand-alone approach for estimating the LRMC of generation the most appropriate approach for the 2013 determination?	47
9	How should IPART make best use of publicly available market forward price data and modelled forward price data in estimating the market-based energy purchase cost?	48
10	Is a 'point in time' or a 'rolling average' approach to assessing forward prices preferable for estimating the market-based energy purchase cost?	49
11	Is including a volatility allowance within the market-based purchase cost an efficient and reasonable means of addressing the risk of wholesale electricity price volatility?	50
12	Is our proposed approach for incorporating the carbon price appropriate for the 2013 determination? How should we account for uncertainty about this price after the end of fixed price period?	53
13	Is our proposed approach for managing the risk that the Carbon Pricing Mechanism is removed or changed over the 2013 determination period appropriate?	53
14	How should IPART decide whether it is in the long term interests of customers for the energy purchase cost allowance to include further headroom in excess of the price floor?	55
15	How should we estimate the costs of purchasing certificates under the LRET, SRES and ESS in the 2013 determination?	57
16	What is the most appropriate way to manage the timing issue associated with the release of the Small-scale Technology Percentage?	57
17	What is the appropriate scope of IPART's annual review of the energy cost allowance? In updating a decision in an annual review, should we use the same methodology we used for making the original decision?	59

#### Determining the retail cost allowance

18	Is our proposed characterisation of a Standard Retailer appropriate for the purposes of making the 2013 determination?	62
19	Have there been any significant changes to retail operating costs and the costs of acquiring and retaining customers since the 2010 determination?	63
20	What factors explain the apparent differences in retail costs reported by publicly listed companies?	64
Det	ermining the retail margin	
21	Has there been a change to the systematic risks facing electricity retailers and if so, how should they be compensated for?	68
22	Should the retail margin continue to be set as a fixed percentage of total costs and recalculated as part of the annual review process?	68
Set	ting regulated retail charges (miscellaneous charges)	
23	What is the appropriate level for security deposits, late payment fees and dishonoured bank cheque fees?	74
24	Should IPART prescribe the circumstances under which retail charges should be applied, or should we rely on the NSW regulations or the National Energy Retail Rules (whichever applies in NSW)?	74
Imp	pact of our decision on customers	

# 25 Is our proposed approach for assessing the impact of our determination on customer appropriate? Are there any other issues we should consider?76

#### **1.8** The content of the rest of the paper

The rest of this paper discusses each step in our proposed approach for the review in more detail, and outlines our preliminary thinking on some of the issues we will consider. It is structured as follows:

- Chapter 2 considers the legislative requirements, terms of reference and contextual factors that will affect the determination.
- Chapter 3 focuses on competition in the NSW retail electricity market, including how we intend to assess the level of competition and how we can facilitate competition over the 2013 determination period.

- Chapter 4 discusses how we propose to consider the form of regulation, including which prices should be regulated, how they should be regulated and whether any additional regulatory mechanisms are required.
- Chapters 5 to 7 discuss the efficient retail costs involved in supplying electricity to small retail customers, as well as the key decisions we will need to make in determining an allowance for each cost allowance, the matters we need to take into consideration and how we propose to approach these decisions.
- Chapter 8 discusses how we propose to calculate the average change in regulated retail prices for each Standard Retailer.
- Chapter 9 discusses the regulated charges that the Standard Retailers can charge and how we propose to make our decisions on these charges.
- Chapter 10 outlines how we intend to assess the potential impacts of the determination on customers.

# 2 Consider legislative requirements, terms of reference and other contextual factors

The NSW Minister for Resources and Energy has asked IPART to review and determine regulated retail electricity tariffs and charges for the period 1 July 2013 to 30 June 2016, in accordance with section 43EB of the *Electricity Supply Act* 1995 (the Act). This section of the Act states that in determining these tariffs and charges, we must have regard to:

- the matters our terms of reference require us to consider, and
- the effect of the determination on competition in the retail electricity market.

We also need to consider the range of other factors that form the context for this review, and thus influence what factors we need to account for in making our determination. These factors include the trend in electricity prices over the past 5 years, and a range of policy, regulatory and market developments that have occurred since we made the 2010 determination or are currently underway.

#### 2.1 Terms of reference

The terms of reference for this determination (see Appendix A) indicate that the Government's primary reasons for continuing electricity retail price regulation beyond the end of the current determination period are to:

- protect customers from retailers exerting market power where competition is ineffective or yet to be assessed, and
- facilitate competition in the retail electricity market.

They also indicate that the determination may be terminated before 30 June 2016 if directed by the Minister.

As Chapter 1 noted, the terms of reference are similar to those for the 2010 determination. In particular, they require us to determine regulated retail prices based on the efficient costs that a Standard Retailer is expected to incur in supplying small retail customers on regulated prices. In estimating these costs, we must include 3 distinct cost allowances:

- energy costs, including those of purchasing energy from the National Electricity Market (NEM) and complying with greenhouse and renewable energy schemes (green schemes), plus NEM fees and energy losses
- ▼ retail operating costs, including those associated with customer service, customer acquisition and retention, finance, IT systems and regulation
- ▼ a retail margin that reflects the material risks arising from supplying small customers that are not compensated for elsewhere.

However, there are also some significant differences with the 2010 terms of reference. The first relates to how we set the energy cost allowance. In 2010, we were required to set this allowance no lower than the long run marginal cost (LRMC) of generation. However, this time we are required to set the allowance no lower than the weighted average of the LRMC of generation (75%) and the market-based purchase cost (25%). This difference is intended to place downward pressure on regulated retail prices by reducing the amount of 'headroom' built into prices when the LRMC exceeds the market-based cost. In considering whether to set the energy purchase cost allowance above the required floor we will need to consider whether it is in the long term interests of electricity customers for prices to include any *further* 'headroom'.

The second main difference relates to how small retail customers are defined, and thus who is eligible to be supplied on regulated prices. In 2010, these customers were defined as those using less than 160 MWh per year. However, this time they are defined as customers using less than 100 MWh per annum. We have also been asked to construct a profile for customers using less than 40 MWh per year during the determination period. This difference is intended to assist the transition of customers from regulated prices to market prices.

The third main difference is that the 2013 terms of reference specifically require us to analyse and report on the total price impact of the Standard Retailers' obligations to comply with green schemes. We must express this impact as a specific amount based on a typical electricity bill for a residential customer in NSW.

In terms of timing, the 2013 terms of reference require us to provide a draft report and determination within 5 months, and a final report and determination within a further 2 months (see section 1.6). This is a shorter than usual timeframe for making price determinations, and will add to the challenges involved. Given the tight timeframe, we have outlined our proposed methodologies for determining the cost allowances in this paper (see Chapters 5 and 6) and a separate paper on WACC, and invite stakeholders to comment on these methods. We have also released our consultants' reports on their proposed methodology for estimating wholesale costs and their input assumptions and the retail margin. In addition, we will hold a public forum to provide stakeholders with another opportunity to provide input on these methodologies.

#### 2.2 Electricity price increases over the past 5 years

Over the past 5 years, regulated retail electricity prices in NSW have more than doubled in nominal terms, and by around 79% in real terms (ie, in addition to inflation). Two main factors drove this increase.

The main driver was the rise in network costs – that is, the charges electricity retailers incur to use the transmission and distribution networks to transport electricity to their customers' premises. Over the past 5 years, these charges have increased by 130% in nominal terms, adding around \$654 to this annual bill. As Figure 2.1 indicates, they comprise more than half a typical residential customer's annual electricity bill.

The second main driver was the increase in green scheme costs, arising from changes to existing schemes and the introduction of new schemes. For example, the carbon price increased a typical regulated residential customer's annual bill by \$167 or 9% in nominal terms.<sup>2</sup> Increases to the costs of complying with other green schemes, including the Renewable Energy Target (RET) and the NSW Energy Saving Scheme have added another \$76 to regulated retail bills since 2007/08.

<sup>&</sup>lt;sup>2</sup> IPART, Changes in regulated electricity prices from 1 July 2012 - Consumer Fact Sheet, June 2012, p 4.





**Note:** Network charges include contributions towards the Climate Change Fund. The energy, carbon and green costs include losses. Typical bills calculated assuming consumption of 7MWh per year.

The energy cost component, which increased by \$140 over the past 5 years, may have increased by a lower amount had the terms of reference for the 2010 determination not required us to set the energy purchase cost allowance at a level no lower than the LRMC of generation. The LRMC of generation has been higher than the market-based cost of electricity over the past 3 years.

#### 2.3 Policy and regulatory developments

In response to the large price increases discussed above, governments are currently focusing on identifying and addressing inappropriate energy policy and regulatory settings to ameliorate future price increases. Several policy and regulatory reviews and other developments may affect the electricity market and retail electricity prices over the 2013 determination period. These include:

- the review of the RET and uncertainty about other green schemes, including the Carbon Pricing Mechanism
- changes to network regulation and governance, and
- the move to the National Electricity Customer Framework and the NSW Government's intention to ban electricity retailers from charging small customers on market contracts early termination or exit fees (where retailers change the terms and conditions of a contract).

2 Consider legislative requirements, terms of reference and other contextual factors

#### 2.3.1 Review of the RET and uncertainty about other green schemes

Over the 2010 determination period, significant changes occurred to green schemes. At the national level, the RET was split into a large scale and an uncapped small scale scheme in 2011.<sup>3</sup> In addition, the Carbon Pricing Mechanism was introduced on 1 July 2012. In NSW, the state-based Greenhouse Gas Reduction Scheme (GGAS) was closed when the carbon price was introduced, and the NSW Solar Bonus Scheme was closed to new participants in July 2011.<sup>4</sup>

In the 2013 determination period, uncertainty about green schemes and their impact on electricity prices is likely to continue. Further changes to the RET and changes to the Carbon Pricing Mechanism are possible, and a new national energy savings scheme may be introduced. We will need to take account of this uncertainty in deciding on the form of regulation and other elements of the regulatory package for regulated retail prices.

#### The Renewable Energy Target

The Climate Change Authority is currently undertaking a statutory review of the RET scheme. This review is considering the structure of the scheme and the appropriateness of its targets. The final report on the review's findings and recommendations is due by the end of December 2012.

If the Climate Change Authority's recommendations lead to changes in the structure or operation of the RET, this could affect the cost that electricity retailers incur in complying with the scheme – and thus the costs that get passed on to customers in electricity prices. Therefore, we will need to ensure that the regulatory package included in our determination can take account of potential changes to the RET.

#### Carbon Pricing Mechanism

The current mechanism is currently undergoing changes in relation to its intended floor price mechanism. Further, it does not have bipartisan support. We will need to manage the risk of changes to the mechanism in making the determination. In the 2010 determination, we managed risks arising from the carbon price by including a cost pass-through mechanism and an annual review.

<sup>&</sup>lt;sup>3</sup> http://ret.cleanenergyregulator.gov.au/About-the-Schemes/Small-scale-Renewable-Energy-Scheme--SRES-/about-sres

<sup>&</sup>lt;sup>4</sup> The scheme was suspended in April 2011 and closed on 1 July 2011.

We will also need to take account of the fact that under the current Carbon Pricing Mechanism, the fixed price for carbon price is due to end on 1 July 2015. After this time, the price will be determined by the market. Given that Australia's carbon pricing mechanism will be linked to international carbon markets from the commencement of the flexible pricing period, the carbon price will partly reflect the international price of carbon, which adds to the uncertainty.

#### National Energy Savings Initiative

The Federal Government is considering introducing a National Energy Savings Initiative, which would replace the existing state-based schemes, including NSW's Energy Savings Scheme. Again, we will need to ensure that the regulatory package included in the determination can take account of the introduction of a National Energy Savings Initiative and the associated closure of the NSW Energy Savings Scheme.

#### 2.3.2 Changes to network regulation and governance

Electricity transmission and distribution network charges are passed through to customers in electricity bills. Over the past 5 years, they have increased significantly, and this has been the single biggest contributor to the increase in regulated retail electricity bills.<sup>5</sup>

Over the 2010 determination period, IPART (along with other parties) raised concerns that, due to certain aspects of the regulatory and governance frameworks, network price increases may have been higher than necessary.<sup>6</sup> Several reviews and other developments have recently occurred with the aim of addressing these problems, including:

- ▼ the AEMC's review of the economic regulation provisions of the National Electricity Rules
- an expert panel's review of Limited Merits Review regime under the National Electricity and Gas Laws
- the AEMC's review of network reliability standards
- ▼ the NSW Government's changes to the governance arrangements of the 3 distribution network business.

Implementing changes in these areas has the potential to reduce upward pressure on network prices and thus on regulated retail prices.

<sup>&</sup>lt;sup>5</sup> IPART, The challenges of balancing electricity retail prices - A speech for the Australian Energy & Utility Summit conference, 29 June 2012, p 7. Available at: http://www.ipart.nsw.gov.au/Home/Publications/Speeches

<sup>&</sup>lt;sup>6</sup> For example, see IPART, Changes in regulated electricity retail prices from 1 July 2012 – Final Report, June 2012, p 83. Available at: http://www.ipart.nsw.gov.au/files/a73eff3a-91ba-4150-b90d-a06f00a603a2/Final\_Report\_-\_\_\_Changes\_in\_regulated\_electricity\_retail\_prices\_from\_1\_July\_2012.pdf

2 Consider legislative requirements, terms of reference and other contextual factors

## The AEMC's review of the economic regulation provisions in the National Electricity Rules

The National Electricity Rules (NER) set out the powers of the Australian Energy Regulatory (AER) to regulate network prices. The AEMC is responsible for changing the NER in response to proposed changes.

In 2011, the AER proposed changes to the economic regulation provisions in these rules. In August 2012, the AEMC released its draft determination and draft amendments to the rules.<sup>7</sup>

We consider that the AEMC's draft determination provides a better balance between the interests of the network business and electricity customers. For example, it provides the AER with more power to approve capital and operating expenses and more discretion in estimating the WACC. With stronger provisions to allow only efficient expenditure into the regulatory asset base, we consider that the AEMC's draft determination is likely to limit future increases in network prices to efficient levels. This in turn would take some pressure off retail price increases.

#### The expert panel's review of the Limited Merits Review Regime

The National Electricity Law (NEL) includes a Limited Merits Review Regime to provide parties affected by the AER's decisions with recourse to a review mechanism. To date, around \$3 billion in additional revenue has been granted to network businesses through this regime, with the majority applying to the NSW network businesses.<sup>8</sup>

In March 2012, Standing Committee on Energy and Resources (SCER) announced that an expert panel consisting of Professor George Yarrow (as chair), Dr John Tamblyn and the Hon. Michael Egan had been established to review the regime. In September 2012, the expert panel recommended significant changes to it, including broadening of the scope of the review mechanism, increasing customer participation, and establishing a new administrative body to hear appeals under the regime. The SCER has now called for submissions and will then consider its response. We support these recommended changes.

<sup>&</sup>lt;sup>7</sup> The AEMC's draft determination is available on their website: http://www.aemc.gov.au/Electricity/Rule-changes/Open/economic-regulation-of-networkservice-providers-.html

<sup>&</sup>lt;sup>8</sup> Standing Council on Energy and Resources, *Review of the Limited Merits Review Regime*, Stage Two Report, September 2012, p 16.

#### The AEMC's review on network reliability standards

The AEMC has recently completed its review of reliability standards in NSW. This review concluded that the benefits from reductions in capital expenditure under all 3 of the review's scenarios for lower distribution investment significantly outweighed the costs to customers of slightly lower levels of reliability.<sup>9</sup>

The AEMC is currently conducting a national reliability standards review. This will provide advice to the SCER on the merits of moving to a nationally consistent framework for expressing, delivering and reporting on distribution reliability outcomes.

We support setting reliability standards in line with customers' willingness to pay, and specifying the standards on an output basis to facilitate the least-cost delivery of the specified standard.

The NSW Government and SCER will consider these reports in deciding on future reliability standards.

#### The governance of NSW network businesses

The NSW Government has made changes to the governance of the 3 distribution businesses - Ausgrid, Endeavour Energy and Essential Energy - to extract efficiency savings. The NSW Minister for Resources and Energy has indicated that the distribution and transmission businesses have identified capital expenditure savings over the next 4 years of \$1 billion.<sup>10</sup>

#### 2.3.3 Move to the National Energy Customer Framework

The new National Energy Customer Framework (National Framework)<sup>11</sup> was established to transfer the various state-based retail regulations to a single national framework. Once the Retail Law and Rules are adopted by the NSW Government, the AER will be responsible for the compliance and enforcement activities IPART currently undertakes.

<sup>9</sup> AEMC, Review of distribution reliability outcomes and standards, NSW workstream, 31 August 2012, p 7.

<sup>&</sup>lt;sup>10</sup> The Hon Chris Hartcher MP, Minister for Resources and Energy, *Speech to CEDA Energy Series Part 3*, 25 September 2012, p 2.

<sup>&</sup>lt;sup>11</sup> The Framework includes National Energy Retail Law and National Energy Retail Rules, which passed in the South Australian Parliament on 9 March 2011 and received Royal Assent on 17 March 2011.

The National Framework was expected to commence in NSW on 1 July 2012, as agreed by the Australian Government via the Ministerial Council on Energy in December 2010. However, on 1 June 2012 the NSW Government announced that this would be delayed until 2014. It has recently stated that it aims to adopt this framework by 1 July 2013.<sup>12</sup>

We consider that the adoption of the National Framework will facilitate efficient operation of the retail market, and may have a positive impact on competition in the market by allowing retailers to operate more efficiently in multiple jurisdictions.

#### 2.3.4 Ban on early termination fees

The NSW Government recently announced that it intends to ban electricity retailers from charging an early termination fee to customers who exit their electricity contract due to a change in the contract's terms and conditions.<sup>13</sup>

Early termination fees are not regulated charges (ie, IPART does not determine maximum early termination fees or any other fee for a market contract). The extent to which a ban on early termination fees affects the retail market will depend on how the policy is implemented.

#### 2.4 Market developments

In addition to these policy and regulatory changes, competition in the NSW retail electricity market has continued to develop since we made the 2010 determination. There are also market developments scheduled to occur during the 2013 determination period, including:

- the AEMC's review of the effectiveness of competition in the retail electricity market in NSW and the Government's response, and
- the NSW Government's asset sale program in relation to its remaining energy generation assets.

<sup>&</sup>lt;sup>12</sup> The Hon Chris Hartcher MP, Minister for Resources and Energy, Media Release, 17 September 2012.

<sup>&</sup>lt;sup>13</sup> http://www.trade.nsw.gov.au/\_\_data/assets/pdf\_file/0006/443823/Minister-Hartcher-medrel-Early-termination-fees.pdf

## 2.4.1 Continued development of competition in the NSW retail electricity market

Since our 2010 determination, competition in the retail electricity market in NSW has developed in a number of ways. For example, developments include:

- increased market entry by retailers
- more active switching between retailers by customers
- fewer customers remaining on the regulated price
- ▼ the sale of the NSW Standard Retailers to Origin Energy and TRUenergy (now called EnergyAustralia<sup>14</sup>) in 2011
- more readily available information on electricity prices (for example, websites like www.myenergyoffers.nsw.gov.au, which allow customers to compare all electricity offers in their area).

We will consider the developments in the retail electricity market as part of our analysis on the effectiveness of competition (see Chapter 4).

#### 2.4.2 The AEMC's review of retail competition

SCER has asked the AEMC for advice on the effectiveness of competition in the retail electricity market in NSW, and whether or not price regulation should be removed. Ultimately, the NSW Government will decide whether or not to adopt any recommendations made by the AEMC.

The AEMC's analytical framework is similar to our own assessment of the effectiveness of competition in the retail market (see Chapter 4). However, our analysis is designed to guide how light-handed our approach should be in regulating prices, whereas the AEMC will provide advice on whether retail price regulation should be removed. The AEMC's final report is due in September 2013.

In anticipation of the AEMC's findings, we propose to use this determination to facilitate the development of competition in NSW as required under the terms of reference. We will undertake our own analysis and seek comment from stakeholders on how the regulatory package included in the 2010 determination could be evolved to achieve this objective. Further, we would like to identify areas where retailers, government and consumer groups can improve practices to enhance the competitiveness of the market.

<sup>&</sup>lt;sup>14</sup> In March 2011 TRUenergy bought the EnergyAustralia Standard Retailer, including the brand name, from the NSW Government. In October 2012 TRUenergy rebranded its entire national business to the EnergyAustralia brand name.

2 Consider legislative requirements, terms of reference and other contextual factors

#### 2.4.3 The NSW Government's energy asset sale program

In March 2011, the NSW Government sold its Standard Retailers (EnergyAustralia, Integral Energy and Country Energy) and the trading rights to the Delta West and Eraring power stations.

The Government has announced that it intends to sell its remaining generation assets, including the Macquarie Generation power stations, the Delta Coast power stations and the underlying physical assets for the Delta West and Eraring power stations (which have Gentrader agreements attached to them).

We factor the ownership of power stations into our analysis of market-based energy purchase costs by allowing strategic bidding opportunities to owners of significant generation portfolios. Therefore, we will have regard to the outcomes of this sale program in our review.

## 3 Assessing retail competition

In addition to considering the legislative requirements, terms of reference and context for this determination, we need to assess the level of competition in the retail electricity market in NSW. In general, we consider that a well-functioning competitive market can provide more effective customer protection and better customer outcomes than price regulation. We need to assess the degree to which the current structure and conduct of the retail market in NSW is likely to protect customers. We also need to consider how the market is likely to evolve over the determination period, including the impact of our decision on the market.

This assessment will guide us in deciding what form of regulation is most appropriate for this determination. For example, if we find that there are few impediments to competition in the NSW market and competition is increasingly leading to outcomes that benefit customers, the form of regulation can be more 'light-handed'.

We also intend to consider what can be done to facilitate the further development of competition through this determination. As Chapter 1 noted, making competition work for customers will ultimately reduce the need for retail price regulation and facilitate its removal at a time the NSW Government considers appropriate. This is in the long-term interests of customers.

The sections below discuss how we propose to undertake this step of our overall approach for making the determination, and identify the issues we need to consider and are seeking stakeholder comment on.

#### 3.1 Assessing current competition in the NSW market

To assess the current level of competition in the NSW retail electricity market, we propose to use a similar approach to the one we used in making the 2010 determination. This approach is also similar to the one the AEMC used in examining retail energy market competition in Victoria, South Australia and the ACT. It involves:

- defining the relevant market(s)
- considering the structural features of this market(s)
- assessing retailer and customer conduct in this market(s), and
- considering the outcomes for customers in the market(s).

Based on the information available to us at this stage, our preliminary view is that competition in the NSW retail electricity market has increased since 2010. However, we will obtain further information and undertake further analysis as part of our 2013 review.

#### 3.1.1 Market definition

To define the retail market or markets in NSW, we need to determine whether the level of competition differs across the state. For example, we need to consider whether there are any sub-markets for small electricity customers, defined by factors such as geography, consumption or socio-economic status. The existence of sub-markets may mean that different forms of regulation are required, appropriately targeted to each market.

In our review for the 2010 determination, we found that there were sub-markets based on the 3 standard supply areas in NSW, but no separate sub-markets defined on consumption or income characteristics.

#### 3.1.2 Market structure

The structure of the market includes the number of retailers contesting the market, their relative market share, and any barriers to additional retailers entering the market. This structure is important because it affects the scope for competition and the potential for retailers to exert market power within the market.

In assessing the NSW market for the 2010 determination, we found that the state's 3 Standard Retailers had continued to lose market share to second-tier retailers over the previous 3 years. However, Country Energy had retained a more substantial market share in its standard supply area. We also found that both the large number of regulated prices and geographic dispersion in Country Energy's supply area were acting as barriers to market entry in that area.

Since 2010, there has been a major change in the structure of the NSW market. In 2011, the Standard Retailers were sold to 2 existing energy retailers, Origin Energy and TRUenergy (now rebranded as EnergyAustralia). This sale increased the level of concentration in the market. However, on its own, this does not necessarily mean that the market is any more or less competitive than it was in 2010. A concentrated market can be competitive if it has sufficient competitors or low barriers to entry (threatening competition). We need to understand whether there are currently any material barriers to entry in the NSW retail electricity market(s) that may hinder retail competition (including the potential for competition) and customer participation. For example, whether there are parts of NSW where retailers do not actively participate and/or customers are impeded from participating in the competitive market.

Another change since 2010 is that other existing energy retailers, such as AGL, have continued to increase their customer numbers in NSW at the expense of the Standard Retailers. Figure 3.1 below shows retailers' shares of the state's small customer retail electricity market as at the end of June 2012.

## Figure 3.1 Retail market shares of small customers in NSW (customer numbers as at 30 June 2012)



**Note:** Market shares are based on small customers with up to 160MWh of consumption per annum. Origin Energy's market share includes the 2 Standard Retailers it owns; Integral Energy and Country Energy. AGL's market share includes its wholly-owned Powerdirect business.

**Data source:** IPART's calculation based on individual energy licensees' reported operating statistics for 2011/12.

#### 3 Assessing retail competition

#### 3.1.3 Market conduct

In general, the conduct of retailers and customers in a market reflects the level of competition in that market. For example, competitive rivalry between retailers provides incentives for them to offer products and services that reflect customers' needs and preferences and are competitively priced. For competition to work customers need access to information that enables them to easily compare products and identify those that best meet their needs.

Some of the factors we will consider in examining market conduct include:

- the transparency of the market (eg, the extent to which customers are aware that they are able to choose their electricity retailer in NSW, and their ability to compare and assess these offers)
- ▼ the number of customer transfers between retailers and between retail products (such as between regulated prices and retail market offers), and
- the range of retail market offers available (including the discounts available and how prices change during a market contract).

In our review for the 2010 determination, we found that the retail market had become less transparent over the previous 3 years, with customers facing difficulties in accessing pricing information for comparison purposes. However, since 2010, there have been several developments that we consider have improved the accessibility and quality of pricing information. For example, IPART's *myenergyoffers*<sup>15</sup> website allows customers to independently compare all generally available electricity offers in their area. This website has received a significant increase in customer visits over the past 12 months. In addition, price disclosure guidelines for retailers operating in NSW have been established to improve price transparency for customers in assessing retail market offers.<sup>16</sup>

Our 2010 review also found that the number of customers transferring between retailers had increased. In general, customers transfer between retailers to take advantage of cheaper prices, or transfer back to their Standard Retailer if they think they will be better off paying regulated prices. As Figure 3.2 shows, the number of customers transferring between retailers has continued to increase over the 2010 determination period. In the past year, the numbers of transfers per month have been at historically high levels (over 40,000 transfers each month), although switching rates are still below those experienced in Victoria.

<sup>&</sup>lt;sup>15</sup> www.myenergyoffers.nsw.gov.au

<sup>&</sup>lt;sup>16</sup> The National Energy Customer Framework is expected to commence in NSW by 1 July 2013. The Australian Energy Regulator has developed Retail Pricing Information Guidelines, as part of its new role under the National Energy Retail Law (Retail Law) and National Energy Retail Rules (Retail Rules). The AER will operate a national independent price comparator website, Energy Made Easy.

As at August 2012, there had been a total of more than 3 million transfers since full retail competition was introduced in 2002.<sup>17</sup>

Figure 3.2 Number of customer transfers in NSW retail electricity market, 2004 - 2012



**Note:** The data do not include customers who have switched from a standard contract to a market contract with their existing retailer or vice versa or who have signed another contract with their pre-existing retailer. **Data source**: AEMO.

Perhaps most significantly, the number of small customers moving off regulated prices and taking up market offers has also continued to increase. At the beginning of the 2010 determination period, around 66% of small customers were on regulated prices. This has now fallen to around 50%.<sup>18</sup>

While the movement of customers between retailers, and between the regulated prices and market offers, provides an indication of how active customers are across NSW, it does not provide information on the types of customers switching retail supplier, nor the outcomes for these customers. In other words, it does not explain whether the customers who transferred retailers were better off, and thus whether competition is leading to outcomes that are in the long-term interests of customers. This issue is discussed in the following section.

<sup>&</sup>lt;sup>17</sup> Each time a customer changes retailers it is counted as a transfer. Therefore, the number of unique customers that have transferred retailers is less than the 3 million transfers recorded in this measure as some customers will have transferred more than once.

<sup>&</sup>lt;sup>18</sup> IPART, Changes in regulated electricity prices from 1 July 2011 – Final Report, June 2012 p 1.

#### 3 Assessing retail competition

#### 3.1.4 Customer outcomes

In a well-functioning competitive market, customers would generally experience positive outcomes (in terms of price and service) as a result of participating in that market. In general, we consider that a well-functioning competitive market can provide more effective customer protection and better customer outcomes than price regulation. In assessing customer outcomes for this review, we will seek to understand the experiences of those customers who have been active in the market.

Our 2010 review found that outcomes for customers who had entered the competitive market were not uniformly positive. For example, some customers were unknowingly paying rates higher than the regulated rates. We were concerned that this may have been the result of a lack of clear information on how discounts were applied and how prices changed over the life of the contract. It may also have been due to customer misconceptions about the electricity supply chain (for example, how and when prices change and the drivers of these changes). The introduction of the *myenergyoffers* website and the price information disclosure guidelines are likely to have improved price transparency for customers in assessing retail market offers.

We note that as part of its review of competition in the NSW electricity and natural gas retail markets, the AEMC will be undertaking surveys of small customers in NSW to better understand customer experiences in the competitive market. This survey will investigate customers' awareness of retail market offers and their use of and attitudes toward electricity and gas, including the perceptions of competitive opportunities and offers available, reasons for switching (or not switching) retailers, and reasons for choosing one retailer over another. The results of this survey will be available in the first half of 2013 and will assist us in determining whether customer outcomes have improved since our last review. We would also like to investigate whether further improvements could be made to make competition work for customers.

# 3.2 Considering how competition will evolve over the 2013 determination period

We also need to consider how competition in the market is likely to evolve over the determination period. As competitive evolves and increasingly leads to outcomes that benefit customers, the form of regulation can become more 'lighthanded'.

Several likely or potential developments may affect the NSW retail electricity market during the 2013 determination period. These include the adoption of the National Energy Customer Framework (discussed in section 2.3.3) and the NSW Government's ban on retailers charging early termination fees to customers who transfer to another retailer before the end of their contract term (discussed in
section 2.3.4). There are also opportunities for stakeholders to facilitate competition and make the market work better for customers (see section 3.3).

It is not clear how these and other developments will affect the NSW retail electricity market during the 2013 determination period. We welcome stakeholder comment on this issue.

# 3.3 Identifying what else can done to facilitate competition

As Chapter 2 discussed, the terms of reference clearly indicate that one of the NSW Government's primary objectives in continuing electricity price regulation beyond 30 June 2013 is to facilitate competition in the NSW retail market. The Government has agreed (along with other Australian governments) to remove price regulation when it is satisfied that effective competition exists in this market. The AEMC is currently reviewing the competitiveness of the NSW market and will report its findings to the Government later this year.

We consider that a well-functioning competitive market can provide benefits for customers. In general, we consider that a well-functioning competitive market can provide more effective customer protection and better customer outcomes than price regulation.

Given this context, we intend to focus specifically on identifying what further measures – in addition to those discussed in the sections above – are needed to improve competition and make the market work for customers. For example, there may still be structural barriers to competition, as well as barriers to customers taking up market offers. The prices currently available through some market contracts include considerable discounts relative to regulated prices. At this stage we do not fully understand why some customers continue to rely on regulated prices. We understand that some customers may be reluctant to participate in the competitive market due to issues such as:

- the complexity involved in assessing offers and signing a market contract
- lack of awareness or interest in market offers, and
- lack of trust or confidence in signing a market contract, perhaps particularly when approached by door-to-door or telephone marketers.

At this stage, we don't have a clear understanding of the reasons or barriers that explain why half of all small electricity customers in NSW remain on regulated prices. Ideally, we would like to meet with different stakeholders – including retailers, consumer representatives, government agencies and customers – to first discuss and identify the barriers, and then work out what measures can be taken to overcome them and which stakeholders are best placed to take those measures.

# 3 Assessing retail competition

IPART seeks comments on the following

- 1 Is IPART's prop osed approach for a ssessing retail market competition appropriate for this review?
- 2 What can be done to faci litate retail market competition in N SW over the 2013 determination period?

# 4 Deciding on the form of regulation

The third step in our proposed approach is deciding on the form of regulation – that is, the package of rules and methodologies for setting, monitoring and changing regulated retail prices during the 2013 determination period. As Chapter 1 indicated, this decision will be based on our interpretation of the terms of reference and context for the determination, and our assessment of competition in the retail electricity market over the determination period.

Our assessment of competition is important because the level of competition in a market strongly influences the form of price regulation needed to protect customers. Where the market is competitive, with rivalry between retailers and customers being able to easily compare their price and service offerings and transfer between retailers, prices should reflect efficient costs. Thus, competition imposes disciplines on retailers that protect customers, and thus allows regulation to be more 'light-handed'.

Our preliminary view is that for this determination, as for the 2010 determination, we need to adopt a form of regulation that, when combined with the disciplines imposed by competition in the market, will be sufficient to protect customers from regulated prices being set significantly above the efficient cost of supply. If we find that the competition in the market has developed significantly since 2010, the existing form of regulation may need to evolve to facilitate further development in competition.

The key issues we will consider in deciding on the form of regulation are:

- which prices or components of prices to regulate over the determination period
- what approach to use to regulate these prices
- what (if any) additional regulatory mechanisms to include to further protect customers and/or manage the risks and uncertainties the Standard Retailers face over the determination period.

#### 4 Deciding on the form of regulation

# 4.1 Which prices to regulate

For the 2010 determination, we decided to regulate all pre-existing regulated prices for each Standard Retailer. We also made some related decisions, including not to regulate the optional 'green premium' component of these prices, and to impose restrictions on the establishment of new regulated prices and the removal of obsolete regulated prices.

For the 2013 determination, our preliminary view is that we should either:

- ▼ continue to regulate all pre-existing regulated prices for each Standard Retailer, or
- move to an 'opt-in' pricing model to reduce the number of regulated prices and actively encourage customers to consider the offers available in the competitive market.

In addition, our preliminary view is that we should maintain our decisions not to regulate green premiums and to impose restrictions on establishing and removing regulated prices.

## 4.1.1 Continue to regulate all pre-existing regulated prices

Regulating all pre-existing regulated prices, as we did for the 2010 determination,<sup>19</sup> would offer consistency to stakeholders. For example, it would allow customers on regulated prices to remain on those same prices.

However, by itself, this option is not likely to facilitate further competition in the retail market. For customers on regulated prices, it would not increase their awareness of competitive market offers, or create an additional incentive for them to consider the offers available to them.

In addition, it would not address Country Energy's large number of regulated prices, which we have previously found is a barrier to competition in the nonmetropolitan retail market. In our 2010 review, we found that while Country Energy had reduced its number of regulated prices over the previous 3 years, it still had more than 100. We found that this made it difficult for customers and potential new entrants to identify the 'price to beat' in Country Energy's supply area, and thus inhibited entry into the competitive market in that area.

<sup>&</sup>lt;sup>19</sup> In addition to the existing regulated prices, we regulate charges that are specified under the *Electricity Supply Act* 1995, specifically the imposition of security deposits, late payment fees and dishonoured bank cheque fees.

#### 4.1.2 Adopt an opt-in pricing model

Under an opt-in pricing model, all existing regulated retail prices would become unregulated, and we would establish a limited number of new cost-reflective regulated prices for each Standard Retailer. Customers who are on an existing regulated price would then have 3 options:

- 1. do nothing and remain on their current price which would be unregulated in terms of price (but may retain non-price protections)
- 2. 'opt in' to regulated prices by electing to move onto a new regulated price offered by their Standard Retailer, or
- 3. sign a market contract with either their Standard Retailer or 1 of the '2nd tier retailer's operating in their area.

Customers who already have a market contract would still be able to move onto a new regulated price.

#### Consideration of an opt-in model in previous determinations

We considered adopting an opt-in pricing model for both the 2007 and 2010 determinations. We chose not to do so because this model would have caused complications with the Electricity Tariff Equalisation Fund (ETEF). In addition, we were concerned that customer awareness of the competitive market and the quality and accessibility of information on market offers were not sufficiently high for the model to be adopted.

#### Consideration of an opt-in model for the 2013 determination

We intend to reconsider adopting an opt-in pricing model for the 2013 determination for several reasons. First, the ETEF ceased to exist in 2011, so Standard Retailers' participation in this fund is no longer a concern. Second, we expect that our assessment of competition in the market will find that customer awareness of retail competition has improved since 2010. Third, we consider that an opt-in pricing model has the potential to facilitate further development in competition. For example, it would:

- directly reduce Country Energy's number of regulated prices and therefore remove a barrier to competition in the non-metropolitan market
- help raise customer awareness of the competitive market, and encourage more customers to compare market offers and take advantage of the price discounts available in the competitive market.

#### 4 Deciding on the form of regulation

In addition, an opt-in pricing model is more consistent with the National Energy Customer Framework, which NSW is expected to adopt on 1 July 2013 (see section 2.3). Under this framework, 'Standard Retailers'<sup>20</sup> are obliged to supply their existing customers under a Standing Offer, which includes their current price and standard non-price protections.

As Chapter 3 discussed, since 2010, the proportion of NSW small customers moving off regulated prices and onto market contracts has continued to increase, as has the number of small customers transferring between retailers per month. This suggests that customer awareness of the competitive market and willingness to consider and take up market offers has increased. Therefore, adopting an optin pricing model may be consistent with evolving the form of regulation to keep pace with the development of competition and facilitate further development.

## Implications of introducing an opt-in model for customers

An implication of introducing an opt-in model is that customers on exiting regulated prices would be required to make a decision about whether they want to remain on a regulated price, rather than this being the default option. Ideally, to achieve the objective of facilitating further competition, they should be encouraged to consider the options open to them before making this decision. This suggests that the introduction of opt-in pricing arrangements would need to be preceded and accompanied by a comprehensive customer information and awareness campaign. This could be undertaken by the NSW Government, IPART and retailers.

Another implication of the opt-in model is that for some customers, moving from an existing regulated price to a new cost-reflective regulated price may result in a price increase. This is only likely to be an issue for Country Energy customers, some of whom are still on legacy regulated prices that are lower than the costreflective level. In addition, given the time required to develop such a campaign, it may be appropriate to delay the introduction of opt-in arrangements until partway through the 2013 determination period (which begins on 1 July 2013). Potentially, the timing of this introduction could be made dependent on achieving certain improvements in customer information and customer awareness.

<sup>&</sup>lt;sup>20</sup> However, for existing connections, 'Standard Retailers' are not defined geographically, but in relation to the retailer that was previously supplying the premises.

# 4.1.3 Maintain decisions on green premiums and establishing and removing regulated prices

For the 2010 determination, we considered whether optional components of regulated prices – specifically 'green premiums' – should be regulated, and whether there should be any restrictions on introducing new regulated prices and/or removing obsolete regulated prices. We decided to:

- Continue not regulating green premiums (ie, the premium paid by customers who have chosen that an agreed proportion of their electricity will be sourced from renewable energy or 'green' sources). We originally made this decision in 2007 to promote retail competition and the cost-reflectivity of green premiums.
- Not allow Standard Retailers to establish new regulated retail prices unless there were exceptional circumstances and they had obtained our prior approval. This decision was made to limit the number of regulated prices.
- Provide Standard Retailers with flexibility to rationalise their regulated retail prices, and to remove obsolete prices, as long as they continued to offer 1 regulated price to small retail customers. This decision was made to reduce the number of regulated prices and promote the cost-reflectivity of those that remained.
- Subject Country Energy to an additional condition related to rationalising regulated prices. This condition was that before removing a regulated price and transferring customers on that price to another regulated price, it must seek our prior approval if the level and structure of the prices were not the same. This decision was intended to protect customers from steep increases in regulated prices, which could occur if a customer on an obsolete regulated price set at a lower than cost-reflective level was transferred to a 'generally available' cost-reflective regulated price.

The need for a specific condition for Country Energy in the 2013 determination may depend on whether opt-in arrangements are adopted. While we are not aware of any developments or other reasons to suggest these decisions are no longer appropriate, we invite comments from stakeholders on whether these decisions should be retained for the 2013 determination.

IPART seeks comments on the following

- 3 Is an opt-in model for all or part of this determination preferable to regulating all existing regulated prices? If not, how could we facilitate competition by reducing the large number of regulated prices for Country Energy?
- 4 Are our p revious decisions, such a s not to regulate gre en premiums and to restrict the introduction of new regulated prices, still appropriate?

#### 4 Deciding on the form of regulation

# 4.2 What approach to use for regulating these prices

Over several previous determinations, the approach we have used to regulate retail electricity prices has evolved in response to the development of competition in the retail market. That is, as the customer protection provided by competition has increased, our regulatory approach has evolved from a more heavy-handed approach (ie, the target tariff regime we established in 2004) to a relatively light-handed approach (the weighted average price cap approach we have used since 2007, which allows retailers discretion in setting their individual prices and components, subject to an average price change).

For the 2013 determination, our preliminary view is that we could either:

- continue to use a weighted average price cap (WAPC) approach, or
- move to an even more light-handed index-based approach.

### 4.2.1 Continue with a WAPC approach based on costs determined by IPART

As noted above, in our 2007 and 2010 determinations we decided to use a WAPC approach to regulate prices over these determination periods. This approach limits the **average** change in each Standard Retailer's regulated prices (weighted by the relevant quantity), rather than the change in its **individual** regulated prices. It ensures that each Standard Retailer's regulated prices do not generate more revenue in total than we allowed for in our determination (given the assumed number of customers on regulated prices and their assumed electricity consumption).

The WAPC provides retailers with discretion in setting individual regulated prices. That is, it allows them to decide on the level and structure of these prices, as long as they meet the constraint on the change in weighted average prices. However, most residential customers that remain on regulated prices in metropolitan areas are in the same tariff class. This limits the ability of Standard Retailers to segment the market and charge different prices to different customers.

The WAPC formula we have used (see Box 4.1) allows for the retailers' actual network costs to be passed through to customers. The values of the other price controls in the formula are based on our estimate of the efficient costs of supplying small retail customers on regulated prices. Because the WAPC relies on our estimates of efficient costs, it can be considered a 'cost-based' approach.

In making our previous determinations, we found that a WAPC, together with the competitive pressures present in the metropolitan market, would provide reasonable protection against regulated prices being set significantly above costs in that market. However, in the non-metropolitan market (ie, Country Energy's supply area), we found there may not be sufficient competition to restrain increases in individual regulated prices. In addition, the greater number of regulated prices in this market may have provided more potential for customers to be segmented. Therefore, we concluded that a WAPC may, in the case of nonmetropolitan markets, not provide sufficient protection on its own and that a supplementary mechanism was necessary (this mechanism is discussed in section 4.3.1 below).

#### Box 4.1 The Weighted Average Price Cap formula

Under the 2007 and 2010 determinations, the WAPC has been calculated in each year of the determination period using the formula below, plus:

- 1. the relevant R values determined by IPART as part of the determination
- 2. the N values, which a re equivalent to the actual network charges incurred by the retailer
- the relevant quantities, including consumption figures and customer numbers for each tariff.

$$\sum_{i=1}^{n} \sum_{j=1}^{m} P_{ij}^{t} . q_{ij}^{t-1} \leq \sum_{i=1}^{n} \sum_{j=1}^{m} C_{ij}^{t} . q_{ij}^{t-1} + PT^{t}$$

where:

- ▼ i=1,2...n and j=1,2,...m (ie, the retailer has n regulated tariffs which have u p to m components, such as a fixed component and variable components).
- $P_{ii}^t$  is the price proposed by the retailer for each component of tariff i
- $q_{ii}^{t-1}$  is the relevant quantity (eg, customer numbers or consumption in MWh)
- $C_{ii}^{t} = N_{ii}^{t} + R_{ii}^{t}$ , that is, the regulated price control set by IPART
- $PT^{t}$  is the cost pass-through amount allowed or required by IPART.

Note: Excerpt from IPART's 2010 Determination.

The WAPC could be used regardless of whether we continued to regulate all preexisting prices or moved to an opt-in approach that established new regulated prices. 4 Deciding on the form of regulation

We consider that a WAPC (based on costs that we determine):

- adequately manages the regulatory risks associated with our cost estimations (and facilitates the rationalisation of regulated prices) by allowing retailers to restructure individual prices to reflect their underlying costs
- provides regulatory certainty for stakeholders who are already reasonably familiar with this approach
- provides transparency around the causes of price changes
- allows us to report separately on the cost and price impacts of the Standard Retailers' obligations in relation to green schemes, as required by our terms of reference
- helps us to assess the cost impacts of regulation and taxation changes during the determination period (which may be necessary if we decide to include additional regulatory mechanisms), and
- facilitates competition as it provides the Standard Retailers with sufficient flexibility in setting their prices.

## 4.2.2 Adopt an index-based approach

If supported by our findings on retail market competition, it may be appropriate to move from a WAPC to an even more light-handed approach, such as an indexbased approach. Under an index-based approach, regulated prices would be set and changed in line with the change in an external index. This index would provide a proxy measure of the change in the Standard Retailers' efficient costs.

The Essential Services Commission of South Australia has recently adopted a hybrid cost- and index-based approach for regulating retail electricity prices in that state. This approach, called the Relative Price Movement (RPM) methodology, applies to 'standing contract'<sup>21</sup> prices in South Australia and is summarised in Box 4.2 below.<sup>22</sup>

<sup>&</sup>lt;sup>21</sup> A standing contract is the retail electricity contract that AGL SA must offer to all South Australian small customers (customers consuming less than 160 megawatt hours (MWh) per annum).

<sup>&</sup>lt;sup>22</sup> For more information see ESCOSA, Methodology for Setting Electricity Standing Contract Prices – Final Report, August 2010.

#### Box 4.2 The Relative Price Movement methodology

Key elements of the RPM methodology applied in South Australia include:

- making an initial cost-based assessment in year 1 of the price path period (to ensure prices are cost-reflective)
- allowing standing contract prices to change at the commencement of each financial year, in line with changes to market contract prices in South Australia
- designing a tolerance band, to provide a floor and cap which constrain the overall movement in standing contract prices each year.

The RPM methodology relies on a sufficient level of competition in the market as this will ensure the change in market contract prices reflects the change in efficient costs.

As an index-based approach is a more light-handed form of regulation, it could be consistent with facilitating further competition in the NSW retail market and transiting to price deregulation. However, this approach has some shortcomings compared to a WAPC approach.

First, the drivers of price changes are not as transparent under an index-based approach. Generally, a large number of factors can influence an external index, and it is not possible to determine the impact of individual factors. The drivers of price changes are more transparent under a cost-based approach because this approach estimates each cost component individually. Without transparency it is difficult to identify and to explain to stakeholders the causes of price changes.

Second, an index-based approach would increase the risk that we inaccurately calculate and report on the Standard Retailers' costs of complying with green schemes and their impact on a typical customer's bill. In contrast, calculating these costs would be straightforward if we use a cost-based approach because, as noted above, this approach estimates each cost component individually.

Third, an index-based approach would increase the risks associated with using other regulatory mechanisms, such as a cost pass-through mechanism, to manage risks and uncertainties associated with the potential for changes in regulation or taxation during the determination period (discussed below).

Given the pros and cons of these 2 regulatory approaches, our preliminary inclination is to continue using a WAPC for the 2013 determination period, subject to this being supported by our assessment of retail market competition. We are interested in stakeholders' views on whether there are any new developments or contextual reasons that suggest that the current WAPC approach may need to be modified or enhanced, or that an alternative approach better meets the objectives for this determination.

IPART seeks comments on the following

5 Are there enhancements that can be made to our current Weighted A verage Price Cap (WAPC) approach?

# 4.3 What additional regulatory mechanisms to include

In addition to the approach for setting and changing prices, our determinations sometimes include additional regulatory mechanisms to manage risks and uncertainties associated with this approach. For our 2010 determination, we decided to include 3 additional regulatory mechanisms:

- A 'threshold price increase test' for Country Energy, which imposes additional conditions on Country Energy if it proposes to increase individual regulated price above a threshold level.
- A cost pass-through mechanism, which allows retailers to pass through to customers material increases or decreases in costs associated with regulatory or taxation change events that were not foreseen or certain at the time of the determination.
- An annual review of the total energy cost allowance.

The first 2 of these mechanisms are discussed further below. The terms of reference for this determination require us to undertake an annual review of the total energy cost allowance. This is discussed in Chapter 5.

## 4.3.1 Threshold price increase test for Country Energy

The exiting threshold price increase test imposes additional conditions on Country Energy if it proposes to increase a regulated price (ie, the overall price, not a component of this price) above a threshold level. This threshold is defined as 5% greater than the average increase allowed under the determination (ie, the WAPC).

This mechanism was designed to provide additional protection to individual Country Energy customers while still allowing the retailer to recover its efficient costs across all regulated prices. We decided it was necessary in light of our finding that the level of competition in the non-metropolitan market may not be sufficient to restrain increases in individual regulated prices (and therefore to prevent price shocks for individual customers). In addition, the greater number of regulated prices in this market provided more potential for customers to be segmented, meaning that a WAPC may not be sufficient on its own to ensure no individual regulated price was set significantly above the cost of supply.

We decided not to use this test for EnergyAustralia and Integral Energy due to our finding that competition in the metropolitan market was sufficient to restrain increases in individual prices significantly above the cost of supply. Whether the test continues to be necessary for Country Energy largely depends on the developments in competition in the non-metropolitan market since 2010.<sup>23</sup> It may also depend on whether opt-in arrangements (discussed in section 4.1) are introduced.

#### 4.3.2 Cost pass-through mechanism

We decided to include a cost pass-through mechanism in the 2007 and 2010 determinations. This mechanism was designed to allow the Standard Retailers to pass through to customers certain material increases and decreases in costs relative to the costs we allowed for in those determinations. These costs related to defined regulatory or taxation change events, which were unanticipated or uncertain at the time of the determination.<sup>24</sup>

We included the mechanism by incorporating a pass-through factor into the WAPC formula. The pass-through amount could be positive or negative (so that both cost increases and decreases associated with an event could be passed through). Only costs that were deemed to be material and incremental to the original costs allowed for under the determination could be passed through. To determine whether they were material, we established a materiality threshold per event.

The cost pass-through mechanism was designed to reduce the financial risk associated with unanticipated or uncertain regulatory or taxation change events. Given that it is difficult to assess the probability of a regulatory or taxation change event occurring, and that these events are both beyond retailers' control and may impose material costs on them, we considered it appropriate for the retailers to share some of the risk associated with them with customers. We considered that a cost pass-through mechanism was preferable to including an allowance for the risk that retailers will incur such costs in the cost allowances.

Over the 2010 determination period to date, the cost pass-through mechanism has been triggered twice, once in 2011 and once in 2012. In both cases, the cost change arose from changes in the Standard Retailer's obligations under the Renewable Energy Target scheme.

<sup>&</sup>lt;sup>23</sup> We note that in some remote parts of Country Energy's area that there are currently no market offers available.

<sup>&</sup>lt;sup>24</sup> The scope of this mechanism is separate to the annual review of the total energy cost allowance.

#### 4 Deciding on the form of regulation

Our preliminary view is that the regulatory package for the 2013 determination period should continue to include the cost pass-through mechanism. We consider that it provides necessary flexibility to ensure that prices reflect the cost of supplying electricity to small retail customers if a taxation or regulatory change event occurs during the determination period. As Chapter 2 discussed, several policy and regulatory reviews may affect the Standard Retailers' costs over the 2013 determination period. For example, there is potential for change to the Renewable Energy Target (including further revisions to obligations under the Small-scale Renewable Energy Scheme) and to the Carbon Pricing Mechanism. This adds to the risk that the cost allowances we determine will under or over-estimate their costs, so it is important that we adopt a form of regulation that can manage this risk. Another mechanism we use to manage these risks is the periodic review of the total energy cost allowance which is discussed in section 5.4.

We are interested in stakeholders' views on the definition and scope of the cost pass-through mechanism for the 2013 determination and in particular whether any enhancements or modifications are needed in light of the context and objectives for this determination.

IPART seeks comments on the following

- 6 Is additional pricing protec tion required for Country Energy customers? If so, how can this be achieved without lim iting Country Energy's ability to rationalise its regulated prices?
- 7 Are any enhancements needed to the current cost pass-through mechanism for the 2013 determination?

# 5 Determining the energy cost allowance

The fourth step in our proposed approach is to estimate the costs that an efficient Standard Retailer is likely to incur in supplying its small retail customers on regulated prices over the determination period. These costs include 3 distinct components – energy costs, retail costs and a retail margin. We will estimate the efficient level of each of these components, and determine a cost allowance for each component that reflects the efficient level. This chapter focuses on the energy cost allowance, while Chapters 6 and 7 discuss the retail cost and retail margin allowances.

A Standard Retailer's energy costs include:

- energy purchase costs the costs of buying wholesale electricity in the National Electricity Market (NEM), including the carbon price
- green scheme costs the costs of complying with its obligations under government climate change mitigation policies, such as the Federal Government's Renewable Energy Target and the NSW Government's Energy Savings Scheme
- energy losses the costs of electricity that is lost as it moves through the transmission and distribution system to its customer's premises
- market fees and ancillary charges the fees and charges it must pay to the Australian Energy Market Operator (AEMO).

The sections below discuss our proposed approach for estimating each of these energy costs, the issues we will need to consider and our preliminary views on these issues. 5 Determining the energy cost allowance

## 5.1 Energy purchase costs

Our terms of reference indicate that we must determine an appropriate energy purchase cost allowance for each Standard Retailer that facilitates competition and promotes efficiency in the electricity industry for the long-term interests of customers. Our terms of reference also specify that we must set the allowance:

- using a transparent and predictable methodology
- ▼ no lower than the weighted average of the market-based cost of purchasing electricity and the long run marginal cost (LRMC) of electricity generation, giving the market-based cost a 25% weighting and the LRMC a 75% weighting.

# 5.1.1 Proposed approach for determining the energy purchase cost allowance

We propose to use the same high-level approach and methodologies to determine the energy purchase cost allowance as we used for 2010 determination. We consider that this approach is transparent and predictable. As many stakeholders are already familiar with it, it also has the advantage of increasing regulatory certainty over the 2013 determination period.

Our proposed approach includes the following steps:

- forecasting each Standard Retailer's regulated load in each year of the determination period
- ▼ estimating the long-run marginal cost (LRMC) of electricity generation
- estimating the market-based cost of purchasing wholesale electricity
- calculating the weighted average of these 2 costs to establish the price floor
- determining an appropriate cost allowance for each Standard Retailer, subject to the price floor, by considering the above estimates and the objectives of promoting the long-term interests of customers.

To assist us in applying this approach, we have engaged Frontier Economics to provide advice on the estimated LRMC and the market-based cost. Frontier Economics has provided a draft methodology paper (available on our website) which sets out in detail how it proposes to estimate each of these costs.

While we are confident that our proposed approach is sound, we recognise that applying it to determine the energy purchase cost allowance will not be straightforward. For example, it will require us to carefully consider:

- Our forecast of each Standard Retailer's regulated load (ie, demand from customers on regulated prices) over the determination period. This load is a key driver of energy purchase costs, but forecasting it with a high degree of certainty is difficult because the demand for electricity is highly variable and is affected by a range of factors.
- The detailed methodologies we will use. Under both the LRMC and marketbased approaches for estimating each Standard Retailer's purchase costs over the determination period, a range of methodologies could potentially be used. Applying these methodologies will require us to make decisions on a number of key assumptions, including assumptions relating to the cost of generation.
- The implications of the LRMC and market-based approaches for 'headroom' in the prices and the impact on competition. These approaches and the detailed methodologies they involve may have differing implications for facilitating competition and promoting efficiency in the electricity industry for the long-term interests of customers.
- How the relevant costs and risks associated with purchasing electricity are best compensated within the whole 'regulatory package' for the 2013 determination. For example, it may be that some of these costs and risks are better accounted through another regulatory mechanism rather than the purchase cost allowance.

### 5.1.2 Forecasting the Standard Retailers' regulated load profiles

Our terms of reference require us to set an energy purchase cost allowance to efficiently meet each Standard Retailer's regulated load for each year of the determination period. This means we must forecast each retailer's regulated load profile for each year.

A regulated load profile represents the electricity demand from regulated (small) electricity customers. It is a profile or 'shape' because demand from customers varies considerably over a typical day. The regulated load profile is important because it affects the cost of providing electricity to customers. In general, the more 'peaky' the regulated load profile (ie, the greater the difference between peak demand and average demand and the relationship of that demand to times of high system demand) the more expensive it is for a retailer to supply the electricity.

Our terms of reference require us to develop 2 separate regulated load forecasts: one for customers who consume between 0 and 40 MWh per year and one for customers who consume between 0 and 100 MWh per year.

For the 2010 determination, the Standard Retailers provided forecasts of their regulated load on a half-hourly basis for each financial year of the determination period. We asked Frontier Economics to examine the load forecasts in detail and undertake an independent analysis of the reasonableness of these forecasts. This analysis involved comparing the load factor and volatility of each Standard Retailers' forecasts against historical ETEF data, and adjusting for any embedded generation.

One of the main comments that stakeholders made about this approach was that it was not transparent. The regulated load profiles developed from this approach were commercially sensitive and therefore were not made publicly available.

For the 2013 determination, we have appointed Frontier Economics to assist us in developing regulated load profiles for each Standard Retailer. We have requested that where possible, it should use publicly available information on the net system load profile (NSLP) published by AEMO. We will develop the regulated load profiles in consultation with the Standard Retailers and will release a report and accompanying spreadsheet as part of our draft report.

#### 5.1.3 Estimating the LRMC of electricity generation

The LRMC of electricity generation represents the least-cost combination of electricity generation plant required to meet each Standard Retailer's forecast regulated load. For the past 2 determinations, we have used a 'stand-alone' or 'greenfield' approach to estimate this LRMC. This approach effectively builds a whole new least-cost generation system designed to meet the regulated load.

However, there are other approaches we could use. One alternative is an 'incremental' approach. This approach assumes that the existing generation plant is already in place. Therefore, the regulated load can be met by the existing plant plus any new generation plant required.

The decision on the appropriate approach to estimating the LRMC of generation can be material to the LRMC estimates and regulated electricity retail prices. For example, due to the current loose supply-demand balance in the wholesale electricity market, new plant may not be required. The capital cost of new plant would then be omitted from the calculation of the LRMC using an incremental approach (given that new plant may not be required to meet forecast demand). This is likely to result in a lower energy cost than using a stand-alone approach. Our preliminary view is that the stand-alone method remains the most appropriate for estimating the LRMC of generation to meet the regulated load for the 2013 determination for 3 reasons:

- First, the stand-alone approach assumes the generation plant will earn an economic return on their market value, as it takes both capital and variable costs into account when estimating the LRMC. In contrast, under the incremental approach, the capital costs of existing and committed generation plant are treated as sunk costs. Therefore, capital costs are not reflected in the estimate of incremental LRMC unless new plant is part of the least-cost outcome.
- Second, the incremental approach is problematic in situations where the aim is to estimate the LRMC of meeting a load other than the system load. This is because the existing generation plant have been designed to meet the system load and it is not sensible to model these plant for meeting a much smaller load, such as the regulated load.
- Third, because we have used the stand-alone approach to calculating the LRMC in the past 2 decisions after considering alternatives. Continuing with this approach provides regulatory certainty.

For these reasons we propose to maintain the stand-alone approach for estimating the LRMC of generation.

IPART seeks comments on the following

8 Is the stand-alone approach for estimating the LRMC of generation the most appropriate approach for the 2013 determination?

#### 5.1.4 Estimating the market-based energy purchase cost

The market-based approach for estimating the energy purchase cost takes into account the costs and risks retailers would face in purchasing electricity in the wholesale market to meet the regulated load. For the past 2 determinations, we have estimated this cost using a methodology that relies on the concepts of portfolio theory used in finance and investment.<sup>25</sup>

This method involves estimating electricity purchase costs using an efficient mix of purchasing instruments – that is, spot market purchases and electricity contracts of various kinds – for a range of risks. The results are presented as an 'efficient frontier'. This frontier demonstrates an important trade-off between the expected cost of an electricity purchasing portfolio and the associated risk. It shows that retailers' expected electricity purchase costs will depend on how they make trade-offs between cost and risk within their portfolio.

<sup>&</sup>lt;sup>25</sup> Frontier Economics, Draft methodology for energy cost consultancy and retail costs and margin consultancy, October 2006.

We consider that this approach is still appropriate, and is consistent with our terms of reference for the 2013 determination. Therefore, we propose to maintain it for this determination. However, we will consider a number of issues related to applying the approach, discussed below.

#### What source of forward price data should we use?

Our proposed methodology for estimating the market-based energy purchase cost involves predicting future wholesale market prices (ie, forward prices). There are several possible sources of forward price data, including:

- modelled (or simulated data)
- publicly available market data (such as d-Cypha), and
- retailer's actual forward costs.

Using publicly available market data has the advantage of being the most transparent source of information. However, market prices tend to be less reliable for predicting prices further into the future due to low traded volumes. As Chapter 2 discussed, there is also some uncertainty surrounding the future of the Carbon Pricing Mechanism and carbon price. Therefore, market forward prices may be unsuitable, particularly in the second and third years of the determination period.

Using modelled data may address issues related to the suitability of market forward prices in the longer term. Importantly, it will also enable us to meet the requirement in our terms of reference that we report on the impact of carbon price on regulated retail prices and typical customer bills. While the modelled forward prices can be estimated with and without carbon, it is not possible to determine the impact of the carbon price with market forward price data. In general, using modelled prices provides a better understanding of what is driving price changes.

One option for the 2013 determination could be to use both market and modelled forward prices. For example, market forward prices could be used in the first year of the determination period (2013/14) and modelled forward prices after that. This approach is attractive, particularly if modelled prices are similar to forward prices in the first year. However, we would still need to address our reporting requirements in relation to carbon.

IPART seeks comments on the following

9 How should IPART make best use of publicly available market forward price data and modelled forward price data in estimating the market-based energy purchase cost?

# Should we estimate the market-based purchase cost on a 'point in time' or 'rolling average' basis?

Estimating the market-based energy purchase cost requires a decision about whether the price of hedging contracts should be based on a 'point in time' or a 'rolling average' of contract prices over a period of time.

In broad terms, retailers have previously put the view that a point in time approach does not reflect the volatility in contract prices and how retailers actually hedge their risk. They have submitted that a rolling average approach would be more appropriate.<sup>26</sup>

However, for the 2010 determination we decided to adopt a point in time approach. Our main reason was that using a rolling average approach would result in an estimate that largely reflects historical prices. We considered that this made the approach inappropriate, as in a competitive market, historical costs rarely form the basis of current and future prices.

For example, using a rolling average approach compensates retailers for contracts previously entered into that are now 'out of the money', and does not reward them for contracts previously entered into that are 'in the money'. In other words, it does not value the contract at the **current** market price for the instrument (known as 'marking to market').<sup>27</sup> Contracts are financial instruments that can be traded, and therefore should be valued at current rates. For example, the appropriate way to value a share is the price that could be received today, not the value paid for it in the past.

For this same reason, our preliminary view is that a point in time approach is most appropriate for the 2013 determination.

IPART seeks comments on the following

10 Is a 'point in time' or a 'rolling average' approach to assessing forward pric es preferable for estimating the market-based energy purchase cost?

<sup>&</sup>lt;sup>26</sup> For example, see AGL's submission to IPART's 2011 Draft Report, May 2011, p 7, available at: http://www.ipart.nsw.gov.au/files/21d6f2ba-7b09-432a-8fdb-9f24015596d2/Submission\_-\_Changes\_in\_regulated\_Electricity\_Retail\_prices\_from\_1\_July\_2011\_-\_Draft\_Report\_and\_Draft\_Determination\_-\_AGL\_-\_Andrew\_Dudgeon\_-\_Website\_version.pdf

<sup>27</sup> Mark-to-market or fair value accounting reflects that the fact that a contract is not worth what was paid for it but rather its market price today.

5 Determining the energy cost allowance

#### How should the potential volatility in the wholesale electricity price be managed?

The wholesale electricity spot market is influenced by many factors – including demand, the weather, fuel and other input costs, generator outages, transmission constraints and strategic bidding behaviour. This means there is considerable potential for volatility in the wholesale electricity price. Even if a Standard Retailer hedges its regulated load consistent with the conservative point on the efficient frontier, there will be some residual risk in its portfolio.

In the past 2 determinations, we have decided to manage the risk associated with price variation caused by normal system volatility through a 'volatility allowance'. This allowance represented the costs for retailers to hold sufficient working capital to withstand resulting cash flow variations. We considered that this approach:

- represented an efficient and reasonable means of addressing this residual risk
- was consistent with the approach adopted in other decisions where the costs of working capital are taken into account, and
- was objective and transparent.

We will reconsider this issue for the 2013 determination, and are interested in stakeholders' views. However, we emphasise that all appropriate costs and risks associated with purchasing electricity from the NEM should be compensated for only once in the regulatory package. This will require analysis and consultation on where within the package particular costs and risks are best compensated for (ie, in which cost allowance or through which additional regulatory mechanism).

IPART seeks comments on the following

11 Is including a volatilit y allowance wit hin the market-based purchase cost an efficient and reasonable means of addressing the risk of wholesale electricity price volatility?

### 5.1.5 Developing input assumptions for modelling the LRMC and marketbased energy purchase cost

In modelling both the LRMC and market-based energy purchase cost, we will need to make several input assumptions related to electricity generation. These include assumptions on the capital costs, operating and maintenance costs, fuel costs and technical parameters of generation plant.

These assumptions, in particular for capital costs and fuel costs of generation plant, have a large influence on the resulting LRMC and market-based cost estimates. Therefore, it is important that they are as reasonable and appropriate as possible. For the 2011 and 2012 annual reviews, we sourced information on these input assumptions from a number of published third-party consultant reports.<sup>28</sup> However, we have identified several issues associated with relying on these third-party reports. In particular:

- it means there is no single, consistent source for the input assumptions
- it makes it difficult to explain changes in the input assumptions, and
- we cannot obtain updated input assumptions when we need them.

In light of these issues, we have decided to seek expert advice on the appropriate input assumptions for our purpose. The advantage of this approach is that we will develop a transparent set of assumptions required for our modelling that are internally consistent and reflect of our views on key issues, having regard to issues raised in consultation processes and advice from our expert consultant. We would then be in a better position to explain the various input assumptions and how our energy cost allowance promotes the long-term interests of customers.

We have appointed Frontier Economics to provide this advice on input assumptions. These input assumptions will be used in the modelling of the LRMC and market-based energy purchase cost. We have published Frontier Economics' draft methodology document on our website. We have also released a draft methodology paper on estimating the WACC for a range of energy related businesses, which are used as a discount rate for modelling energy costs and for estimating the retail margin.

In our 2010 determination we relied on the Australian Energy Market Operator's (AEMO) forecasts of demand, but changed between its scenarios to better reflect market conditions. AEMO is improving its demand forecasting process and we propose to continue relying on the AEMO forecasts. Our preliminary position is that we would use the medium growth forecast, unless there was a reason to adopt an alternative forecast.

We invite stakeholders to comment on this approach.

#### 5.1.6 Taking account of the Carbon Pricing Mechanism

The Carbon Pricing Mechanism commenced on 1 July 2012. It is designed to send price signals to high emission-intensive generators, and facilitate the transition to a low emission-intensity energy sector. It also sends a price signal to electricity customers about the environmental impact of their consumption.

<sup>&</sup>lt;sup>28</sup> For more information see IPART, Changes in regulated electricity retail prices from 1 July 2012 – Final Report, June 2012, p 25.

We propose to maintain our approach for incorporating the carbon price into regulated retail prices that we developed for the 2010 determination. This involves incorporating the cost of carbon in our estimates of the LRMC of generation and the market-based purchase cost by using a **carbon inclusive** approach. Under this approach, the costs of carbon are factored into the price of wholesale electricity. In contrast, a carbon exclusive approach separately calculates the cost of carbon and adds this to the 'black' cost of electricity.

We have previously noted that using a carbon inclusive approach avoids making assumptions about the extent to which a carbon price will be reflected in wholesale electricity prices.<sup>29</sup> We have observed that the pass-through assumptions made by other organisations have been highly variable depending on the characteristics of the market and the timeframe over which the impact of carbon was considered. Under our carbon inclusive approach the impact of carbon on a retailer's energy purchase costs is an output of the modelling.

In relation to the market-based purchase cost, using a carbon inclusive approach means that carbon costs feed into the bidding decisions made by generators. Generators bid in relation to the price and quantity of electricity they are willing to sell into the National Electricity Market. In this sense, the approach factors the costs of carbon into a generator's short run marginal costs consistent with the way a generator considers the cost of fuel. Ultimately, the carbon costs faced by different generators are reflected in the price of wholesale electricity.

In relation to the LRMC of generation, carbon costs are considered alongside other short run and long run costs (such as capital costs) in building a theoretical generation system that is able to supply the regulated load at least cost.

The carbon price is fixed until 1 July 2015, after which it will be determined by the market under a cap and trade scheme and linked to eligible international markets. In our 2012 annual review we decided to use Commonwealth Treasury's core policy scenario for carbon prices after the fixed price period. We are interested in stakeholders' views on whether this is appropriate for the 2013 determination.

We need to account for the uncertainty arising from the impact on the wholesale market of the carbon price once the fixed price period expires. The 2010 determination allows for a one-off special review in January 2013 to account for carbon price risk under the then proposed Carbon Pollution Reduction Scheme.<sup>30,31</sup> We would like to explore the most appropriate way to manage carbon price uncertainty for the 2013 determination period.

<sup>&</sup>lt;sup>29</sup> IPART, Review of regulated retail tariffs and charges for electricity 2010-2013 – Final Report, March 2010, p 81.

<sup>&</sup>lt;sup>30</sup> January 2013 was scheduled to be the first year of the fixed price period under the previous Carbon Pollution Reduction Scheme.

<sup>&</sup>lt;sup>31</sup> The Tribunal will not conduct the special review because the carbon price is now fixed for 2012/13.

IPART seeks comments on the following

12 Is our proposed approach for incorporating the carbon price appropriate for the 2013 determination? How should we account for uncertainty about this price after the end of fixed price period?

# 5.1.7 Managing the risk associated with potential changes to or removal of the Carbon Pricing Mechanism

As Chapter 2 discussed, there is a risk that the Carbon Pricing Mechanism may be changed or removed at some time during the 2013 determination period. If this occurred, we would need to change or remove the impact of the carbon price on the energy purchase costs included in the energy cost allowance.

If it occurred at the end of a financial year, and we had sufficient notice of this, we would be able to make the necessary adjustment during our proposed annual review of the energy cost allowance (see section 5.4 below).

However, if it occurred during a financial year, we propose to make the necessary adjustment through the proposed cost pass-through mechanism (discussed in section 4.3). This would involve determining the incremental cost saving associated with changing or removing the carbon price from our estimates of the LRMC of generation and the market-based purchase cost. The incremental cost savings would be passed through into regulated retail prices in the following year of the determination (ie, as a reduction to prices).

IPART seeks comments on the following

13 Is our pr oposed approach for ma naging the risk that the Ca rbon Pricing Mechanism is removed or chang ed over the 2013 d etermination period appropriate?

# 5.1.8 Exercising our discretion in determining the energy purchase cost allowance

As noted above, the terms of reference for the 2013 determination require us to determine an appropriate energy purchase cost allowance, subject to the specified price floor, that will recover the efficient costs of supply, facilitate competition and support the long term interest of customers.

In considering whether to set the energy purchase cost allowance above the required floor we will need to consider whether it is in the long term interests of electricity customers for prices to include any *further* 'headroom'. This is in addition to the headroom that the terms of reference already build into prices by requiring a 75% LRMC weighting when the LRMC exceeds the market-based cost.

In exercising this discretion, we need to consider what is in the long term interest of electricity customers and what aspects we can influence through retail price regulation.

For example, we need to consider the impact of our determination on the retail market and potentially make trade-offs between 2 priorities:

- First, we need to set prices to recover the efficient costs incurred by Standard Retailers in supplying customers. This will promote efficient investment in the retail market, and efficient use of electricity which is in the long-term interests of customers.
- Second, we need to facilitate competition. This implies that prices should encourage new entrants to the retail market, increasing competitive rivalry between retailers and promoting competitive pricing between retailers. Setting regulated prices above the efficient cost of supply is sometimes referred to as providing 'head room' (that is, making regulated retail customers more profitable) and is often put forward as a way of encouraging retail market entry, increasing competitive rivalry between retailers to entice customers off the regulated price and ultimately lowering prices for those customers participating in the competitive market.

Over the long term, we expect that the market-based cost will reflect the LRMC. However, over the short term these estimates will diverge, reflecting market conditions. Currently, market prices are significantly below the LRMC reflecting a loose supply-demand balance in the wholesale market. Setting the energy purchase cost allowance as the higher of these 2 approaches can therefore provide an asymmetric outcome for customers on regulated prices. That is, prices are based on a shorter term market-based cost when this cost is highest (to protect retailers' financial viability) and on the longer term LRMC when this is highest.

There are also likely to be a range of aspects related to the long term interest of electricity customers that we are unable to influence through retail price regulation.

For example, it is sometimes suggested that our decision on the energy purchase cost allowance will affect the incentives for investment in the wholesale market and the stability of the wholesale market. While efficient investment in the wholesale market is in the long term interests of customers, our view is that this primarily related to conditions in the wholesale market, in particular the supplydemand balance in the wholesale market and future expectations of wholesale prices. We are interested in understanding under what circumstances including further headroom in regulated retail prices would affect incentives for investment in the wholesale market. For example, this might occur if retailers did not minimise their costs in purchasing electricity from the wholesale market<sup>32</sup> and/or generators were able to use any market power they may have in the wholesale market to extract additional profitability from the retail market.

IPART seeks comments on the following

14 How should IPART decide whether it is in the long term interests of customers for the energy purchase cost allowance to include further headroom in excess of the price floor?

### 5.2 Green scheme costs

Our terms of reference require us to estimate the efficient costs of complying with green schemes. As the costs of complying with the Carbon Pricing Mechanism are accounted for in the energy purchase cost allowance, these include only:

- the Renewable Energy Target (RET) scheme comprised of the Small-scale Renewable Energy Scheme (SRES) and the Large-scale Renewable Energy Target (LRET), and
- ▼ the NSW Energy Savings Scheme (ESS).

In our 2010 determination, we estimated the costs of complying with each of these schemes by estimating the cost of the relevant certificate, and determining how many certificates each Standard Retailer would need to surrender each year to meet its obligations under the scheme. Stakeholders have previously expressed mixed views on this approach. Some have supported a cost-based approach while others suggested we should have more regard to publicly available market prices for certificates.

For the 2013 determination, we intend to reconsider our approach. We have appointed Frontier Economics to provide advice on the costs of complying with the LRET and SRES and its proposed approach is set out in its draft methodology paper (available on our website). We will develop an approach and conduct our own analysis to estimate the costs of complying with the ESS.

The sections below outline the approach we used to estimate the cost of complying with these green schemes for the 2010 determination,<sup>33</sup> and the key issues we will need to consider for the 2013 determination.

<sup>&</sup>lt;sup>32</sup> That is, if retailers were willing to share additional retail profits with generators or for those retailers with generation assets, willing to internally hedge at prices above current market prices.

 <sup>&</sup>lt;sup>33</sup> IPART, Changes in regulated electricity retail prices from 1 July 2012 – Final Report, June 2012, pp 37-45.

#### 5 Determining the energy cost allowance

### 5.2.1 Small-scale Renewable Energy Scheme

For the 2011 and 2012 annual reviews, we estimated the costs of complying with the SRES using a nominal market price of \$40 per certificate. Essentially, this price values the opportunity cost of a certificate, recognising that a household have an option to sell certificates at \$40 through a Clearing House. The number of certificates that retailers need to surrender each quarter is based on the Smallscale Technology Percentage (STP). If the STP is set at a level that would clear the market, we would expect the price of a certificate to be close to \$40. However, as the Clean Energy Regulator (previously the Office of the Renewable Energy Regulator) has set the STP too low, certificates have traded for less than \$40 in the spot market.

The Climate Change Authority recently made some draft recommendations that may be relevant to our framework for determining the cost of complying with the SRES in the 2013 determination.<sup>34</sup> For example, the Climate Change Authority made a draft recommendation to amend the function of the Clearing House to a 'deficit sales facility'. This means that certificates would only clear through the Clearing House when there is a deficit (ie, when the Clean Energy Regulator issues certificates to liable entities). The Climate Change Authority suggests that this would make it clear to participants that the Clearing House cannot provide a guaranteed price per certificate. If the Climate Change Authority's recommendation were to be adopted, it would mean that a Clearing House price of \$40 per certificate would be available only in certain circumstances. We seek comment on how potential changes to the SRES arising from the Climate Change Authority's recent discussion paper should be managed.

For the 2013 determination, we will also need to manage a timing issue in relation to estimating the SRES compliance cost component. This timing issue arises because we determine regulated prices on a financial year basis, whereas the Clean Energy Regulator publishes its binding STP on a calendar year basis (by 31 March of the year in which it applies).<sup>35</sup> This means, for example, that in estimating the SRES cost for 2013/14, we would use the binding STP for 2013 but *estimated* (non-binding) STP for 2014. The binding STP for 2014 may be higher or lower than our estimate, which means Standard Retailers face a forecast risk which could be significant in either a positive or negative way. We propose to manage this risk using the cost pass-through mechanism as we did for the 2011 and 2012 annual reviews. However, we seek comment on whether there is a better way to manage this risk.

This issue is further discussed in Frontier Economics' draft methodology report, available on our website.

<sup>&</sup>lt;sup>34</sup> Climate Change Authority, *Renewable Energy Target Review – Discussion Paper*, October 2012.

<sup>&</sup>lt;sup>35</sup> The Climate Change Authority has made a draft recommendation to change the date for publishing the STP to 1 December annually.

#### 5.2.2 Large-scale Renewable Energy Target

For the 2010 determination, we estimated the LRET compliance cost by using a cost-based approach to estimate the cost of a certificate. This involved estimating the long run marginal cost (LRMC) of meeting the LRET target. We engaged Frontier Economics to calculate the marginal cost of a certificate using its least-cost modelling of the power system. The LRMC of meeting the LRET is effectively the marginal cost of an incremental increase in the LRET target, recognising any banking and borrowing of certificates. The number of certificates that retailers need to surrender is based on the Renewable Power Percentage.

Recently the allowances for the cost of purchasing certificates included in regulated retail prices have been above publicly available market prices. Over the long term, we expect that the market prices will reflect the LRMC. However, over the short term these estimates will diverge, reflecting market conditions. The reasons for the difference between our cost-based estimates and market prices are not clear at this stage.

Stakeholders have previously expressed mixed views on this approach. Some have supported a cost-based approach while others suggested we should have more regard to publicly available market prices for certificates. We seek stakeholder comment on whether it is preferable to continue to rely on a cost based approach.

This issue is further discussed in Frontier Economics' draft methodology report, available on our website.

#### 5.2.3 Energy Savings Scheme

For the 2010 determination, we estimated the ESS compliance cost by using the penalty price as a **proxy** for the price of a certificate. We updated the penalty price consistent with the CPI methodology outlined in the *Electricity Supply Act 1995*. The number of certificates that retailers need to surrender is based on the ESS targets. These targets are defined in proportion to total annual NSW electricity sales and as a proportion of total annual liability sales.

IPART seeks comments on the following

- 15 How should we estimate the costs o f purchasing certificates under the LRET, SRES and ESS in the 2013 determination?
- 16 What is the most appropriate way to manage the timing issue associated with the release of the Small-scale Technology Percentage?

## 5.3 NEM fees and ancillary charges and energy losses

AEMO imposes fees on retailers to recover the costs of operating the market. NEM fees are levied on retailers on a per MWh basis according to their electricity purchases. Ancillary service charges cover ancillary services purchased by AEMO to ensure the power system remains in a secure state.

Standard Retailers also incur costs when some of the energy they purchase in the NEM is lost as it moves via the transmission and distribution networks to their customers' premises.

We propose to maintain the approach we used for the 2010 determination for determining NEM fees and ancillary charges. We note that these fees and charges are a relatively small component of a retailer's costs.

We propose to determine an allowance for energy losses by using loss factors published by AEMO. We will apply the appropriate loss factor in percentage terms (including both transmission and distribution losses), to the sum of our decisions on the energy purchase cost allowance, NEM fees and green scheme cost allowances to determine an allowance in \$/MWh.

# 5.4 Annual review of the energy cost allowance

The terms of reference for the 2013 determination require us to conduct a periodic review of the energy cost allowance, including the costs of complying with green schemes.

Consistent with our 2010 determination, we propose to conduct this review annually. The purpose of the review is to manage the risks associated with a 'step change' in future wholesale electricity prices or green scheme obligations that are not managed elsewhere in our regulatory package.

In our 2010 determination we limited the scope of the annual reviews to include:

- the energy purchase cost allowance, including the estimated LRMC and market-based cost (including volatility allowance)
- the green scheme cost allowance, and
- ▼ the energy losses cost allowance.

We also undertook to use the same methodologies and update only certain input assumptions.  $^{36}$ 

<sup>&</sup>lt;sup>36</sup> For more information on the scope of the annual reviews in the 2010 Determination see IPART, *Review of regulated retail tariffs and charges for electricity – Final Report*, March 2010, pp 146-153

We are seeking stakeholder comments on the appropriate scope of the annual reviews for the 2013 determination period. In recent times there has been considerable stakeholder interest around the appropriateness of 'locking-in' certain parts of our decision while opening others to review. For example, in our 2012 annual review some stakeholders questioned whether it was appropriate to review only the market parameters of the weighted-average cost of capital calculation in our annual review.

The appropriate scope of the annual review involves considering the trade-off between regulatory certainty and the increased costs, extended time required and uncertainty associated with a wider scope.

IPART seeks comments on the following

17 What is the appropriate scope of IPART's annual review of the energy cost allowance? In updating a decision in an annual review, should we use the same methodology we used in the first year of the determination?

# 6 Determining the retail cost allowance

As Chapter 5 indicated, as part of the fourth step of our proposed approach we will estimate the level of retail costs an efficient Standard Retailer is likely to incur in supplying customers on regulated prices over the 2013 determination period. We will then determine a retail cost allowance based on this efficient level.

In estimating the efficient retail costs, our terms of reference require that we:

- take account of information from the NSW Standard Retailers and other available information on retailer's efficient operating costs
- include customer acquisition and retention costs to ensure that regulated retail prices are set at a level that encourages competition.

The sections below discuss our proposed methodology for estimating efficient retail costs, the issues we will need to consider, and our preliminary views on some of these issues.

### 6.1 Proposed approach for determining the retail cost allowance

We propose to use a similar high-level approach and methodologies to determine the retail cost allowance as we used for 2010 determination. We consider that this approach is appropriate, and meets the requirements of our terms of reference for the 2013 determination.

We will estimate 2 categories of retail costs:

- Retail operating costs (ROC), which are the operating costs an efficient Standard Retailer would incur in performing the retail functions required to serve its small customer base. They include, among other things, the costs of billing and revenue collection, call centres, IT systems and regulatory compliance, as well as an appropriate proportion of corporate costs.
- Customer acquisition and retention costs (CARC), which are primarily marketing costs associated with acquiring new customers and retaining existing customers, and transferring customers.

For each of these categories, we propose to:

- Obtain information from the Standard Retailers and invite information from other retailers on their actual and forecast costs – broken down into any relevant components and reported on a dollars per customer basis. The information will relate to costs associated with supplying small retail customers in NSW per financial year for the periods 2010/11 to 2011/12 (actual costs) and 2012/13 to 2015/16 (forecast costs).
- Consider whether retailers are likely to face any additional costs over the 2013 determination period that they have not faced in past years.
- Consider the reasonableness of the above information using a combination of benchmarking and data sourced from other jurisdictions and industries.
- Use the above information and considerations to determine an efficient level of costs for a Standard Retailer.
- Disaggregate these efficient costs into fixed and variable cost components.
- Express the variable cost in dollars per MWh and the fixed cost in dollars per customer.

# 6.2 The characteristics of a Standard Retailer for this determination

To apply the above approach, we need to consider the characteristics of a Standard Retailer. This characterisation will affect the specific cost items that should be included in the estimates of ROC and CARC, and the appropriate levels for these costs. Ultimately, this will reflect the balancing of the objectives for the review.

We propose to use similar characteristics as we used for the 2010 determination. This includes:

- ▼ a standalone retailer in NSW that is not vertically integrated into electricity distribution in NSW
- ▼ serves retail customers, including small retail customers, in NSW and potentially other jurisdictions across the NEM, and in doing so has achieved economies of scale in retailing (ie, has efficient costs)
- can offer retail customers standard form and/or market customer supply contracts
- has an existing customer base to defend and seeks to acquire new customers.

We consider that these characteristics are consistent with the terms of reference for this determination, including the requirement that the cost allowances we determine reflect the efficient costs incurred in supplying small retail customers. They are also consistent with the requirement that the prices resulting from the determination encourage competition in the retail market by including customer acquisition and retention costs in the retail cost allowance.

IPART seeks comments on the following

18 Is our prop osed characterisation of a Standard Retailer ap propriate for the purposes of making the 2013 determination?

# 6.3 Minimising the potential for double-counting of costs and ensure our estimates are transparent

For the 2010 determination, we decided to include all marketing costs in CARC to minimise the potential for these costs to be double-counted, and to improve the transparency of our retail cost estimates. We propose to maintain this decision for the 2013 determination. In addition, for the purpose of estimating CARC, we propose to 'draw a line' between existing and new customers, and:

- define acquisition costs as all marketing and transfer costs relating to new customers
- define retention costs as all marketing and transfer costs relating to existing customers.

We will also consider the potential for double-counting other retail cost items, and the relationship between these costs items and the other cost allowances and regulated charges. For example, in making the 2010 determination, we found that some of the costs associated with late bill payments should be excluded from the ROC estimate, as these costs are recovered through the late payment fee.

# 6.4 Considering whether retailers will face additional costs over the determination period

One of the steps in our proposed approach is to consider whether retailers face any additional retail costs in the coming 3 years that they have not faced in previous periods. This step will help us determine the extent to which the historical cost information provided by the Standard Retailers and other retailers is a valid starting point for the 2013 determination.

For example, additional costs may be associated with new retail business activities and changes to existing activities since 2010, or with new factors that affect their costs. For instance, the NSW Government recently announced its intent to ban electricity retailers from charging early termination fees.<sup>37</sup> This may potentially impact on the costs of acquiring and retaining new customers, including changes to the churn rate for small retail customers.

<sup>&</sup>lt;sup>37</sup> http://www.trade.nsw.gov.au/\_\_data/assets/pdf\_file/0006/443823/Minister-Hartcher-medrel-Early-termination-fees.pdf

Electricity retailers use a mix of different channels to market their offers to new customers. These channels have traditionally included door-to-door marketing, inbound and outbound telesales. However, there is some evidence to suggest that the strategies used by retailers for winning small retail customers are changing. This could be the result of an increasing number of people listing their numbers to opt out receiving telemarketing calls (via the Do Not Call Register) or due to a recent bill that proposes to create a similar mechanism for customers willing to opt out of receiving door-to-door marketing visits.<sup>38</sup>

If we find that retailers are likely to face additional costs, we will consider these closely. We will examine the drivers of the new costs, assess whether they are material, and determine whether they are incremental or simply replace previously included costs. For example, NSW retailers have new regulatory compliance obligations in relation to the Small-scale Renewable Energy Scheme and so may face new costs; however, as they no longer have obligations in relation to Greenhouse Gas Reduction Scheme at least some of these new costs may not be incremental.

IPART seeks comments on the following

19 Have there been any significant changes to retail operating costs and the costs of acquiring and retaining customers since the 2010 determination?

# 6.5 Testing the reasonableness of the cost information provided by the retailers

Another step in our proposed approach for determining the retail cost allowance is to consider the reasonableness of the cost information provided by retailers. As part of this step, we propose to:

- compare the structure and level of costs across both the 3 NSW Standard Retailers and second-tier retailers to ensure consistency
- compare the level of cost estimates for each Standard Retailer over time to ensure changes, and especially forecast changes, are reasonable.

For the 2010 determination, these comparisons influenced our decisions to determine the efficient level of ROC based on the average estimate for the 3 Standard Retailers, and to rely on the retailer's actual historical costs and not their forecast over the determination period.

<sup>&</sup>lt;sup>38</sup> Do Not Knock Register Bill 2012. For more details see http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22legislatio n/billhome/r4792%22

We also propose to consider information from public listed companies, as this may also provide a useful benchmark for assessing the reasonableness of Standard Retailer's cost estimates. However, as Table 6.1 shows, there are significant differences in retail costs reported by public companies. Our challenge will be to understand the extent to which this information is comparable.

Retailer	FY2011	FY2012	% change
AGL	~ 66	~63	-5%
Australian Power and Gas <sup>a</sup>	97	91	-6%
Lumo Energy <sup>b</sup>	95	113	19%
Origin Energy <b>c</b>	112	115	3%

 Table 6.1
 Retailer's cost to serve (\$/customer)

a Includes an allowance for corporate overheads. FY2012 is forecast cost. 2011 cost is for the calendar year.
 b Includes employment costs, systems and processes and other miscellaneous charges. Results are for the year to March 2012.

<sup>c</sup> The cost to serve excludes the transitional services agreements that accompanied the sale of the NSW Standard Retailers and excludes the costs associated with the transition to the new SAP system and integration of the acquired NSW retail business. Cost to serve is for the electricity and gas retail businesses, and excludes the cost to acquire/retain customers.

Note: Cost to serve is for electricity and gas retail businesses.

**Source:** AGL Energy Limited, 2012 Full Year Results presentation, August 2012, p 15; Australian Power & Gas, FY12 Half-year results, February 2012, p 8; Lumo Energy, Infratil Investors Day presentation, July 2012, p 43; Origin Energy Limited, 2012 Full Year Results Announcement, August 2012, p 36.

#### IPART seeks comments on the following

20 What factors explain the apparent differences in retail costs reported by publicly listed companies?
### 7 Determining the retail margin

As well as determining allowances for energy costs and retail costs, the fourth step of our proposed approach involves determining an appropriate retail margin for an efficient Standard Retailer in supplying customers on regulated prices.

Like all retailers, the Standard Retailers effectively play a buffering role between the supply and demand sides of the electricity market. They purchase electricity from the National Electricity Market at variable prices and through contracts with wholesale suppliers, and sell it to their customers for 'smoothed' prices. This role exposes them to a number of risks – such as the risk that the actual load profile is different to that assumed in setting regulated prices due to changes in economic conditions, and that the market price of electricity will increase beyond expected levels due to changes in demand. The inclusion of a retail margin allowance is intended to compensate retailers for some of these risks.

The terms of reference for the 2013 determination require that in determining an appropriate retail margin, we consider any material risks arising from supplying small customers that **are not compensated for elsewhere** in the determination. This means we need to take account of the extent to which the energy and retail cost allowances and the additional regulatory mechanisms we decide to include in the determination already compensate the retailers for the risks they will face.

The sections below discuss our proposed approach and methodologies for determining an appropriate retail margin allowance.

#### 7.1 Proposed approach for determining the retail margin allowance

For the 2010 determination, we accounted for all of the **specific risks** retailers will face through the other cost allowances and additional regulatory mechanisms. (For example, we included a volatility allowance in estimating the market-based energy purchase cost to compensate for risk associated with the variability of the wholesale electricity market price. We also include a cost pass-through mechanism to manage the risk associated with unforeseen changes in their regulatory and taxation obligations, and an annual review to manage regulatory risk associated with the energy purchase cost allowance.) Therefore, we set the retail margin allowance to account for retailers' **systematic risk only**.

For the 2013 determination, we propose to adopt a similar approach. In particular, our preliminary proposal is to determine an appropriate retail margin allowance through the following steps:

- seek information from the Standard Retailers and other retailers
- engage a consultant to use this (and other) information to provide expert advice on a retail margin allowance to compensate retailers for their systematic risk
- undertake public consultation on this advice
- decide on an appropriate retail margin, after considering our consultant's advice and stakeholders' comments.

#### 7.2 Proposed methodologies for estimating the retail margin

We have engaged SFG Consulting (SFG) to provide advice on an appropriate retail margin to compensate retailers for their systematic risk. SFG proposes to estimate this margin using 3 different methodologies:

- ▼ **Expected returns methodology.** This involves estimating the expected cash flows that a retailer will earn from small customers and the systematic risk associated with these cash flows, and then determining a retail margin that will compensate investors for this systematic risk.
- Bottom-up methodology. This approach starts from an assumed investment base and cost estimates, then determines the earnings and revenue which would allow the retailer to earn an expected return equal to its estimated cost of capital.
- Benchmarking. This involves examining the reported margins of comparable listed companies to establish a range of the retail margin, as well as other recent regulatory decisions on retail margins, and estimating a comparable margin.

These methodologies, which are broadly the same as those SFG used for the 2010 determination, will produce a range for the retail margin expressed as a fixed percentage of a retailer's total sales (or EBITDA) or a dollar amount.

## 7.3 Deciding on the appropriate level for the retail margin allowance

After considering SFG's advice on the range for the retail margin, and stakeholders' comments on this advice, we propose to select a point within the range that, in our judgement, reflects an appropriate margin for an efficient NSW Standard Retailer.

As part of this step, we will need to consider a range of issues. These include:

- Whether retailers will face any new systematic risks stemming from recent developments in the electricity market or policy and regulatory environment that were not considered for the 2010 determination.
- How small retail customers' electricity consumption is likely to change if economic conditions, represented by GDP, change by more or less than expected. This is important because one of the methods SFG proposes to use to estimate the retail margin relies on an assumption about the correlation between energy consumption and GDP growth.
- How we should translate our decision on the point within the range for the retail margin – expressed as a fixed percentage or a dollar amount – into an allowance expressed as a dollar amount.

# 7.4 Converting our decision on the retail margin into a dollar amount

For the 2010 determination, we set the retail margin as a fixed percentage of the Standard Retailers' total costs (including the energy cost and retail cost allowances we determined, and the network costs the AER determined). We then modelled this percentage as a dollar amount for each year of the determination period, and incorporated the dollar amount into the retail price controls (see Chapter 8). In 2011 and 2012, we remodelled and updated the amount included in the price controls as part of our annual review process.

One consequence of setting the retail margin as a fixed proportion of costs is that the retail margin allowance (expressed as a dollar amount) increases whenever energy, retail and network costs increase. As Figure 7.1 shows, the retail margin component of regulated retail prices has increased considerably since 2010.

For the 2013 determination, we are interested in stakeholder views on whether we should continue set the retail margin as fixed percentage of costs, and if so, how we should translate that percentage into a dollar amounts for each year of the determination period.

#### 7 Determining the retail margin



### Figure 7.1 Retail margin allowance expressed as a dollar amount (\$2011/12 \$/MWh)

Data source: IPART.

IPART seeks comments on the following:

- 21 Has there been a change to the systematic risks facing electricity retailers and if so, how should they be compensated for?
- 22 Should the retail margin continue to be set as a fixed p ercentage of total costs and recalculated as part of the annual review process?

# 8 Translating our decisions into average price increases

The fifth step in our proposed approach is to translate our decisions on the form of regulation and the 3 cost allowances into changes in regulated electricity prices. This is a fairly straightforward step, and we have not identified any specific issues we need to consider in applying it for the 2013 determination.

The sections below outline our proposed approach for this step.

# 8.1 Proposed approach for calculating increases in regulated electricity prices (N + R)

As Chapter 4 indicated, our preliminary view is to continue to regulate prices using a weighted average price cap (WAPC), regardless of whether we continue to regulate all pre-existing regulated prices or move to an opt-in pricing model. A WAPC will allow Standard Retailers to recover the cost allowances we determine, and pass the applicable network charges through to customers.

Our preliminary proposal is to calculate the WAPC using the:

- N values that are based on the actual network charges imposed by network businesses and approved by the AER
- R values that are based on the efficient energy cost allowance, retail cost allowance and retail margin allowance that we determine.

Under the WAPC, Standard Retailers are able to change their individual prices or components of prices (such as the fixed charge and variable usage charge) as long as the average increase across all their regulated prices does not exceed the WAPC. For example, a Standard Retailer may choose to increase one price component by more than the WAPC, and balance this by increasing other components by less than the WAPC. Therefore, an individual customer's prices (and their bills) may increase by more or less than this average amount.

# 8.2 Proposed approach for setting the retail price controls (R values)

The R values are based on cost allowances we determine (discussed in Chapters 5, 6 and 7). We propose to calculate these values by disaggregating each cost allowance into fixed and variable components, and calculating the cost per unit

for each group of components. The fixed R values are expressed as \$ per customer, while the variable R values are expressed as \$ per MWh. This approach to setting the R values is consistent with the 2010 determination.

## 8.3 Proposed approach for setting the network component (N values)

The costs retailers incur for transporting electricity to their customers premises on the transmission and distribution network are regulated by the AER. Standard Retailers have no ability to control these costs. For this reason, we propose to allow them to pass through their actual network costs to customers through regulated retail prices. We took the same approach in our previous 2 determinations.

Over the past 5 years, rises in network costs were one of the main drivers in electricity price increases. However, as Table 8.1 shows, network prices will fall slightly in real terms in 2013/14 – the last year of the AER's current regulatory period.

	2013/14
EnergyAustralia	-0.77%
Integral Energy	-1.72%
Country Energy	-3.99%

#### Table 8.1 Estimate of average real price increases in network prices

Source: AER.

The AER will determine NSW network prices for 2014/15 under transitional Rules currently being finalised by the AEMC. The AER will then determine prices for a regulatory period commencing 2015/16 under the AEMC's revised Rules.

Due to the uncertainty surrounding the impact of network prices on retail prices over the 2013 determination period, we sought advice from the CEO of the NSW distribution businesses on likely changes to network prices. The NSW distribution businesses indicated that:

...in order to place downward pressure on electricity prices, Networks NSW is targeting average distribution network price movements for the 3 NSW DNSPs close as possible to the rate of inflation over the next six years starting 1 July 2013.<sup>39</sup>

Further, NSW Networks has indicated that it currently does not envisage any material restructure of network prices of the NSW distribution businesses.<sup>40</sup>

<sup>&</sup>lt;sup>39</sup> Letter from Networks NSW to IPART dated 12 October 2012.

<sup>&</sup>lt;sup>40</sup> Ibid.

### 9 Setting regulated retail charges

In addition to regulated retail prices, our determination includes the regulated retail charges the Standard Retailers can levy on customers on standard form contracts. These are the fees customers face for taking or failing to take certain actions. Thus, they do not relate to the routine retail supply services, but arise from particular events associated with the supply of energy to individual customers.

The *Electricity Supply Act* 1995 (the Act) defines regulated retail charges as:

- security deposits
- late payment fees and
- dishonoured bank cheque fees.

The Standard Retailers cannot levy any other retail charges on regulated customers.

For this review, we intend to establish a working group comprising representatives of retailers, community welfare organisations and the Energy & Water Ombudsman NSW (EWON) to provide information and comment on these charges. This information will guide our decisions on the basis for setting each charge over the 2013 determination period.

The sections below discuss each of these charges, and indicate the current level of the charge and the equivalent charge under the National Energy Customer Framework (NECF).

#### 9 Setting regulated retail charges

#### 9.1 Security deposits

Under the 2010 determination, the Standard Retailers are allowed to collect security deposits from new customers as a risk-management measure. These deposits are intended to reduce the Standard Retailers' bad debt and therefore reduce the overall costs of supplying customers on regulated prices.

The determination specifies the circumstances in which a security deposit can be collected from a customer, and those in which it should be returned. It also specifies that a security deposit can be set one of the following levels:

- ▼ 1.5 times the average quarterly electricity account
- ▼ 1.75 times the average 2-monthly electricity account, or
- ▼ 2.5 times the average monthly electricity account.

However, in practice, some Standard Retailers have set security deposits at a lower level than this.

Since we made the 2010 determination, the National Energy Customer Framework (NECF) has been developed. This framework includes National Energy Retail Rules, which include provisions for security deposits and their level and application.<sup>41</sup> When NSW adopts NECF, these provisions in the Rules will apply in NSW. The levels of security deposits set out in the Rules are consistent with the provisions in our 2010 determination.

Recently, the NSW Government changed the NSW regulations to allow retailers to collect security deposits only from customers when they first request the supply of electricity.<sup>42</sup> This differs from the provisions in the 2010 determination, which allow the Standard Retailers to collect a security deposit any time during a regulated customer's first year of supply in certain circumstances.

Given that the NSW Government has introduced tighter regulations in relation to security deposits, and aims to adopt the NECF on 1 July 2013, we will consider whether it is still necessary for us to specify the level and/or circumstances in which security deposits can be collected from regulated customers in the 2013 determination.

<sup>&</sup>lt;sup>41</sup> National Electricity Retail Rules, Version 1, Part 2, Division 6.

<sup>&</sup>lt;sup>42</sup> *Electricity Supply (General) Regulation 2001, Schedule 1 cl 4 (2).* 

#### 9.2 Late payment fees

Late payment of bills by customers imposes costs on retailers – for example, the costs of late payment notices, disconnection warnings, field visits, disconnections, mercantile agents and foregone interest. The late payment fee (in conjunction with the retail cost allowance recovered through regulated retail prices) is intended to allow the Standard Retailers to recover an efficient level of these costs.

For the 2010 review, we received and considered a range of stakeholder comments on these fees. Some consumer groups called for the late payment fee to be set at zero, while retailers estimated that the costs of late payment were around \$11 to  $$14.50 ($2010/11).^{43}$ 

In the 2010 determination, we set the late payment fee at \$7.50, and specified the circumstances in which the late payment fee **cannot** be applied. The level of the fee was set to partly recover the efficient costs associated with late payment, with the remainder to be recovered through the retail operating cost allowance included in regulated retail prices. We noted that in our view, applying a late payment fee provides an incentive for customers to pay on time and could therefore result in lower overall costs to retailers. The Standard Retailers did not call for the full recovery of costs associated with late payment through the late payment fee.

The National Energy Retail Rules also contain provisions about the imposition of late payment fees.<sup>44</sup> The NSW regulations require the late payment fee to be waived for hardship customers.<sup>45</sup> We will consider whether it is still necessary for our determination to specify the circumstances in which late payment can be applied.

#### 9.3 Dishonoured bank cheque fee

The dishonoured bank cheque fee allows the Standard Retailer to recover the direct costs they incur from a bank as a result of a dishonoured cheque plus an allowance to recover associated administrative costs.

In the 2010 determination, we set this fee at 2 times the regular GST-exclusive fee charged by the bank or financial institution. We also provided that the Standard Retailers can only charge the fee where they actually incur a fee from a bank for financial institution for the dishonoured cheque.

<sup>&</sup>lt;sup>43</sup> IPART, Review of regulated retail tariffs and charges for electricity 2010-2013 – Final Report, March 2010, p 192.

<sup>&</sup>lt;sup>44</sup> National Electricity Retail Rules, Version 1, Part 3, s73 and schedule 1.

<sup>&</sup>lt;sup>45</sup> Electricity Supply (General) Regulations 2001, cl13AA(4).

The National Energy Retail Rules do not specifically address dishonoured bank cheque fees. The Act defines this fee narrowly to limit it to dishonoured cheques. It does not provide for a fee for dishonoured electronic transfers, which is a more common form of payment. Previously, we have recommended to the NSW Government that it broaden the definition to include dishonoured electronic transfers (or non-cheque transfers).

We are not aware of any issues associated with the dishonoured bank cheque fee in the current determination period.

IPART seeks comment on

- 23 What is the appropriate level for security deposits, late payment fees and dishonoured bank cheque fees?
- 24 Should IPART prescribe the circumstances under which retail charges should be applied, or should we rely on the NSW regulations or the National Energy Retail Rules (whichever applies in NSW)?

# 10 Providing information on the impact of our decisions on customers

The final step in our proposed approach for the 2013 determination is to analyse the likely impact of our decisions on customers on regulated prices, and provide information on this impact in our report.

The large increases in retail electricity prices in recent years have had a significant impact on customers, particularly low-income households. Over the past few years, we have undertaken analysis to enable stakeholders to understand these impacts. We propose to continue this customer impact analysis for the 2013 determination.

Our customer impact analysis generally focusses on 'typical customers'<sup>46</sup> rather than individual customers. This is because the impact on individual customers can vary widely, depending on factors such as how much electricity they use, the actual prices they pay (eg, time-of-use or all-time prices) and how they respond to price changes.

Some of the areas we propose to analysis for this determination include:

- the impact on typical customers' annual electricity bills
- the impact on energy bills (ie, both electricity and gas bills) as a proportion of household disposable income
- ▼ the relationship between increases in income and increases in electricity bills/prices.

Each of these areas is discussed briefly below. We will engage with stakeholders to identify any other ways to better understand the impact of our determination on customers.

#### 10.1 Impact on typical customers' bills

The simplest way we can consider the impact of our decisions on customers is to show how it affects a typical customer's bill. We will show the change in the annual bill for a typical residential customer and a typical business customer in each of the 3 supply areas.

<sup>&</sup>lt;sup>46</sup> We define typical customers as those with median consumption in their supply area.

10 Providing information on the impact of our decisions on customers

Because the change in residential bills can vary significantly within supply areas depending on how much energy households use and what prices they are on, we will also show a distribution of bill changes for residential customers.

#### 10.2 Impact on energy bills as a proportion of disposable income

Another way to consider how our decision affects customers is to present residential customer energy bills as a proportion of household disposable income (ie, income after tax). This is a useful measure as it takes into account changes in both household incomes and energy bills. We will consider energy bills (ie, both electricity and gas) as some households use gas for hot water, space heating and/or cooking whereas some households use electricity for these purposes.

We propose to examine how energy bills as a proportion of household disposable income varies across different areas in NSW. We will update our previous analysis using the 2011 Census data and new information about consumption.

## 10.3 The relationship between increases in income and increases in electricity bills/prices

We intend to examine the changes in incomes, electricity bills and electricity prices over time. We will produce an index for each of these variables to give an overall indication of how they have been changing.

Our analysis will show, for example, how large price increases in recent times have compared to changes in average incomes. We will also incorporate new information on consumption to give an indication of how customers have responded to price increases and therefore how electricity bills have changed.

IPART seeks comments on the following

25 Is our proposed approach for assessing the im pact of our determination on customer appropriate? Are there any other issues we should consider?

Appendices

### A Terms of reference

Terms of Reference for an investigation and report by the Independent Pricing and Regulatory Tribunal (IPART) on regulated retail tariffs and regulated retail charges to apply between 1 July 2013 and 30 June 2016 under Division 5 of Part 4 of the *Electricity Supply Act* 1995.

#### A.1 Reference to IPART under section 43EA

The NSW Minister for Resources and Energy (the Minister) refers to IPART for investigation and report under section 43EB of the *Electricity Supply Act 1995* (the Act) the determination of regulated retail tariffs and regulated retail charges to apply to small retail customers in each standard retail supplier's supply district in New South Wales for the period commencing on 1 July 2013 and terminating on 30 June 2016 or such earlier date as may be directed by the Minister.

#### A.1.1 Background

The continuation of price regulation is underpinned by 2 guiding principles:

- to protect customers from retailers exerting market power where competition is ineffective or yet to be assessed; and
- to facilitate competition in the electricity market.

A key objective for changing the energy costs methodology is to place downward pressure on regulated retail electricity prices.

The NSW electricity retail market has changed markedly over the past few years. The sale by the former Government of the state owned electricity retail businesses has seen the consolidation of the market share of the 3 major retailers. These retailers have approximately 83 per cent of the electricity market.

Customers are increasingly moving away from regulated tariffs. Currently, just over half of small retail customers remain on regulated prices in NSW compared with around 66 per cent at the time the 2010-13 determination was completed.

To assist the transition to an effective competitive market, the definition of a *small retail customer* for the purposes of price regulation will be reduced from

customers using less than 160 MWh of electricity per year to customers using less than 100 MWh of electricity per year.

The Australian Energy Market Commission (AEMC) has commenced a review of the effectiveness of competition in the NSW energy retail market. This review is scheduled to be completed by September 2013.

In this context, the operation of Division 5, Part 4, of the *Electricity Supply Act* 1995, which deals with *regulated retail tariffs and regulated retail charges* will be extended to allow IPART to make a determination of regulated electricity retail tariffs and charges that will apply from 1 July 2013 to 30 June 2016.

Pending the outcomes of the AEMC's analysis, the Government has set these terms of reference in order to continue to support the objectives of efficient cost recovery, effective competition and maintaining the financial viability of standard retail suppliers.

The NSW Government is concerned about electricity price pressures on customers and is aware of the need to balance these impacts on customers, whilst at the same time facilitating an environment for effective competition to continue to develop.

The NSW Government has implemented a range of measures to assist low income and vulnerable customers meet their energy costs and to place downward pressure on electricity prices. On 1 July 2011, the NSW Government replaced the former Energy Rebate with the Low Income Household Rebate and increased the rebate amount from \$145 per year to \$200 per year. This was further increased to \$215 per year on 1 July 2012. The Government has also increased the Medical Energy Rebate in line with the Low Income Household Rebate.

As from 1 July 2012, the NSW Government commenced the new \$75 Family Energy Rebate for customers who have been assessed as eligible for the Commonwealth Government's Family Tax Benefit A or B. Customers eligible for both the Family Energy Rebate and the Low Income Household Rebate will receive a combined payment of up to \$250 per year. In addition to the increased financial assistance provided to eligible customers, the NSW Government:

- is reforming the state's 3 distribution businesses to place downward pressure on network charges, which contribute to around half the total cost of electricity bills;
- implemented a new dividends policy that will cap dividends of the NSW Government owned electricity businesses at existing forecast levels;
- commissioned a review of the electricity network reliability licence conditions in response to concerns about the impact of reliability-related capital expenditure on power prices;

- closed the former Government's financially unsustainable Solar Bonus Scheme to new customers to reduce impacts on energy prices; and
- ▼ announced the closure of the Greenhouse Gas Reduction Scheme (GGAS) upon the commencement of Federal Government's Carbon Pricing Mechanism.

#### A.1.2 Matters that must be taken into account

For the purposes of section 43EB(2) of the Act, in undertaking the review set out in this referral, I PART should ensure its determination reflects the efficient costs faced by a Standard Retail Supplier meeting the forecast demand of the regulated customers they are obliged to serve.

IPART's determination for each year this referral is in force should:

- result in prices that recover the efficient costs of supplying small retail customers;
- ▼ apply any change in the regulated tariffs on 1 July 2013 and annually thereafter on 1 July or on a date determined by IPART; and
- support the long term interests of consumers of electricity and the stability of the electricity market.

These Terms of Reference refer to 3 distinct cost components for Standard Retail Suppliers:

- Energy Costs;
- Retail Costs; and
- ▼ Retail Margin.

#### **Energy Costs**

Energy costs include energy purchases from the National Electricity Market (NEM), greenhouse and renewable energy costs, NEM fees and energy losses.

The Energy Purchase Cost Allowance should be set, using a transparent and predictable methodology.

The Energy Purchase Cost Allowance for each year must be set no lower than the weighted average of the market based approach and the long run marginal cost with the market based approach ascribed a 25% weighting and the long run marginal cost ascribed a 75% weighting.

In addition, IPART must determine the appropriate Energy Purchase Cost Allowance (subject to the floor price) that facilitates competition and promotes efficient investment in, and the efficient operation and use of, electricity services for the long term interests of consumers of electricity. IPART must develop and consult on the methodology for determining the Energy Purchase Cost Allowance.

IPART must determine 2 separate regulated load forecasts for the purposes of this determination; one for customers who consume between zero and 40 MWh per year and one for customers who consume between zero and 100 MWh per year. This will be developed, in consultation with the Standard Retail Suppliers to ensure that the efficient costs of a reasonable forecast regulatory load are recovered.

Additionally, IPART should have regard to the efficient costs of meeting any obligations that Standard Retail Suppliers must comply with, including the costs of complying with greenhouse and energy efficiency schemes (including State and Commonwealth schemes in place or introduced during the period this referral is in force). IPART is required to include the final results of the analysis of the total cost impact of these green schemes on the tariffs, expressed as a specified amount based on a typical electricity bill for a residential customer of New South Wales in its Final Report.

IPART should allow for a periodic review of the Energy Purchase Cost Allowance, including the costs of complying with greenhouse and energy efficiency schemes.

IPART should allow for market fees and ancillary fees as imposed by the Australian Energy Market Operator (AEMO) under the National Electricity Rules.

IPART should allow for energy losses as published by AEMO.

#### **Retail Costs**

Standard Retail Suppliers incur retail operating costs in supplying electricity customers, which include the costs associated with customer service (e.g. operating call centres, billing and collecting revenue), finance, IT systems, and regulation (e.g. licence fees).

IPART should determine an allowance for retail operating costs based on efficient costs. IPART should take into account NSW Standard Retail Suppliers' efficient costs and other available information on efficient operating costs for retailers.

IPART should ensure regulated retail tariffs are set at a level which encourages competition in the retail electricity market by considering the risks involved in operating a retail energy business and including customer acquisition and retention costs in the retail cost allowance.

#### **Retail Margin**

IPART will determine an appropriate margin giving consideration to any material risks not compensated for elsewhere arising from supplying small customers.

#### A.1.3 Consultation

IPART should consult with stakeholders, conduct public hearings or workshops and consider submissions, within the timetable for the investigation and reporting. IPART must make its reports available to the public.

#### A.1.4 Timing

IPART is to release an Issues Paper (including methodology) and a Draft Report and Draft Determination before releasing its Final Report and Final Determination. It must release its Final Report in time for price changes to come into effect on 1 July 2013.

#### A.1.5 Definitions

*Carbon Pricing Mechanism* means that carbon pricing mechanism established under the *Clean Energy Act* 2011 (Cth).

*Energy Purchase Cost Allowance* for a Standard Retail Supplier is an allowance to at least cover the efficient costs of purchasing electricity and managing the risks associated with purchasing electricity, from the National Electricity Market in order to supply electricity for its regulated load, excluding:

- Costs of compliance with greenhouse and energy efficiency schemes (other than the Carbon Pricing Mechanism, which is included in the wholesale energy costs)
- Costs of compliance with any obligations imposed under an applicable law relating to the reporting of greenhouse gas emissions, energy production or energy consumption
- Costs related to physical losses of energy arising during the transporting of energy over the transmission and distribution systems, as published by AEMO
- Any other costs (not referred to in the dot points above) relating to the Standard Retail Supplier's retail supply business or the recovery of any retail margin relating to that business.

#### A Terms of reference

*Regulated retail tariff* means a tariff for or in relation to the supply of electricity required to be charged to a small retail customer under a standard form customer supply contract, being a tariff specified in a determination in force under Division 5 of Part 4 of the *Electricity Supply Act* 1995.

Small *retail customer* means a customer that consumes electricity at less than 100 MWh per year. A small retail customer is eligible for supply under a standard form customer supply contract.

*Standard retail supplier* means a retail supplier to whose retail supplier's licence is attached a standard retail supplier's endorsement. A standard retail supplier must impose tariffs and charges for or in relation to supplying electricity under a standard form customer supply contract in accordance with any relevant determination of IPART under Division 5 of Part 4 of the *Electricity Supply Act* 1995.

*Standard form customer supply contract* means a *contract* entered into under Division 3 of Part 4 of the *Electricity Supply Act* 1995.

### B Overview of the electricity market

This appendix provides an overview of the electricity supply chain, and the regulation of retail electricity in NSW, including what is regulated, how regulated retail prices are structured and discussion of typical customer bills.

#### **B.1** Structure of the electricity industry

Traditionally the electricity industry in NSW was made up of large vertically integrated companies that controlled most parts of the supply chain, including the generation, transportation and retail supply of electricity (see Figure B.1).

As part of the process of industry reform, these vertically integrated companies were broken into segments so that customers could benefit from competition in the areas that could be contestable – electricity generation and retail. Legislation was introduced to regulate the areas that relied on monopoly infrastructure – transmission and distribution networks (now regulated by the Australian Energy Regulator under the National Electricity Rules) – to ensure that access to necessary infrastructure was made available on reasonable terms and conditions.

Initially, parts of the retail market remained a monopoly and were regulated. However, over the past few years, the NSW Government has progressively introduced retail competition into the electricity market. Customers consuming large amounts of electricity have been able to choose their retailer since 1 July 1998. Competition, or contestability, for smaller customers was introduced in stages, with all customers able to choose their electricity retailer from 1 January 2002.



Figure B.1 The electricity supply chain

Data source: AEMO, An introduction to Australia's national electricity market, July 2010.

The sections below provide an overview of each of these elements of the supply chain. This background information draws on the Australian Energy Regulator's report, *State of the Energy Market 2011*.

#### B.1.1 Generation and the wholesale electricity market

The supply of electricity begins with the generation in power stations, which are usually located near fuel sources.

New South Wales is part of the National Electricity Market (NEM) which spans eastern and southern Australia. There are around 305 registered generators in the NEM, including around 200 large generators.<sup>47</sup> These generators sell electricity through wholesale market arrangements in which the dynamics of supply and demand determine prices and investment. The market, which is currently operated by the Australian Energy Market Operator (AEMO), has no physical location, but is a virtual pool in which a central operator aggregates and dispatches supply bids to meet demand.

Spot price volatility in the NEM reflects fluctuating supply and demand conditions. The market is sensitive to changes in these conditions, which can occur over a short period. For example, electricity demand can rise swiftly on a hot day. Similarly, a generator or network outage can quickly increase regional spot prices. The sensitivity of the market to changing supply and demand conditions can result in considerable price volatility.<sup>48</sup>

<sup>&</sup>lt;sup>47</sup> AER, State of the Energy Market 2011, p 25.

<sup>&</sup>lt;sup>48</sup> Prices in the NEM are set on a half-hourly basis (based on an average of the 5 minute prices) and can vary between -\$1000 to \$12,900/MWh.

Spot price volatility in the NEM can cause significant price risk to market participants. Generators face a risk that low prices will affect their earnings, while retailers face a risk that prices may rise to levels that they cannot pass on to their customers. A common method by which market participants manage their exposure to price volatility is to enter into financial contracts that lock in firm prices for the electricity they intend to produce or buy in the future.

#### **B.1.2 Electricity transmission**

Transmission networks transport electricity at high voltage from generators to distribution networks, which in turn transport electricity to customers at lower voltage. In a few cases, large businesses such as aluminium smelters are directly connected to the transmission network.

In Australia there are transmission networks in each state and territory, with cross-border interconnectors that connect regions. The NEM in eastern and southern Australia provides an interconnected transmission network from Queensland through to NSW, the Australian Capital Territory, Victoria, South Australia and Tasmania.

TransGrid and Ausgrid operate as regulated transmission network service providers (TNSPs) in NSW and the ACT. The Australian Energy Regulator (AER) is responsible for the regulation of the revenues recovered by TransGrid and Ausgrid. The AER determines the maximum allowable revenue a TNSP can earn during a regulatory period of at least 5 years.

The AER's current decision provided for increased transmission investment over the 2009/10 – 2013/14 period. The AER accepted the need for substantial capital works over the next 5-year regulatory period beginning 1 July 2009 in order to augment the network and accommodate the growth in maximum demand for energy, replace ageing assets and improve network security and reliability.

#### **B.1.3 Electricity distribution**

Distribution networks move electricity from transmission networks to residential and business customers' premises. When electricity enters the distribution network, it is stepped down to lower voltages for safe use by customers.

In NSW, there are 3 electricity distribution networks, each of which is a government-owned monopoly provider in a designated area. The distribution network service providers (DSNPs) in NSW are Ausgrid, Endeavour Energy and Essential Energy. Like transmission networks, electricity distribution networks are capital intensive giving rise to a natural monopoly industry structure. The NSW DSNPs are regulated by the AER under the National Electricity Law and National Electricity Rules (Electricity Rules).

In April 2009, the AER released its final decision for the distribution networks in NSW for the regulatory period 2009/10 to 2013/14. This decision provided for significant price increases to allow each of the NSW DNSPs to undertake increases in capital works over the regulatory period. Specifically, increases in capital works were provided to augment the networks to accommodate the growth in the maximum demand for energy, to replace aging assets and to improve network security and reliability. The next regulatory period for the NSW DNSPs will be from 2014/15 to 2018/19.

#### **B.1.4 Electricity retail**

The retail market is the final link in the electricity supply chain. It provides the main interface between the electricity supply chain and customers, such as households and small businesses. Because retailers deal directly with consumers, the services they provide can significantly affect perceptions of the performance of the electricity industry.

Retailers buy electricity in the wholesale market and package it with transportation for sale to customers and meet obligations, including green schemes, that are placed on them by governments. Retail customers pay a single price for a bundled electricity product made up of wholesale electricity, transport through the transmission and distribution networks, and retail services. While retailers provide a convenient aggregation service for electricity consumers, they do not provide network services.

The retail market was fully opened to competition in NSW in 2002. This means while all small customers can choose their retailer and enter into a market contract for the supply of electricity, they also have a right to remain on prices that are regulated by IPART. Over the last 2 years the number of customers remaining on regulated prices has fallen from two-thirds to around a half of all small customers in NSW.

Regulated retail prices are provided by 3 Standard Retailers in NSW:

- EnergyAustralia
- Origin Energy (trading under the Integral Energy brand name), and
- Origin Energy (trading under the Country Energy brand name).

Standard Retailers must offer a regulated price to small retail customers in their supply areas. As discussed in section 3.1.2, over the past few years other retailers, have increased their customer numbers in NSW at the expense of the Standard Retailers. Currently, there are 32 licensed retailers, of which around 13 supply residential and/or small business customers.

#### B.2 Regulation of retail pricing in NSW

IPART is responsible for setting the regulated retail electricity prices charged by the Standard Retailers to small retail customers on standard form customer contracts. IPART has been asked to continue to regulate retail prices for small retail customers (defined as customers that use less than 100MWh of electricity per year) who do not choose to enter the competitive electricity market by signing a market contract.

IPART's current determination on regulated retail electricity prices will end on 30 June 2013. The NSW Government has asked us to make a new determination for the period 1 July 2013 to 30 June 2016. The determination will be made under section 43EB of the *Electricity Supply Act 1995* and will apply to the regulated retail tariffs and charges levied by the 3 Standard Retailers in NSW.

Standard Retailers and other retailers in NSW may also offer customers competitive or market contracts. These contracts are not regulated by IPART and the prices charged under them are negotiated between retailer and customer.

#### **B.2.1** How regulated retail prices are structured

There are 2 main components of regulated retail electricity prices – network charges and retail charges. Network charges (N) are regulated by the AER and are passed through directly into the retail prices.

This review sets the retail component (R) of regulated retail electricity prices. Within both the N and the R components there are fixed charges (that do not vary with electricity usage) and variable charges (that depend on the amount of electricity used). A customer's total bill is the sum the network and retail components.

Figure B.2 shows the composition of a typical regulated residential retail electricity bill in NSW over 2012/13. It is comprised of:

- Wholesale energy / generation costs (25%) The cost of generating electricity and managing the risk associated with purchasing electricity for customers. Retailers must buy electricity on the wholesale electricity market, and may have contracts with generators to manage the spot price risk. Some retailers are also part of companies that generate their own electricity. In setting regulated retail prices IPART estimates these costs.
- Carbon costs (8%) Electricity generators must pay for their carbon emissions under the Federal Government's Clean Energy Package. Generators will seek to pass on some of these costs to the wholesale electricity market in the form of higher pool and contract prices. Retailers must purchase electricity from the wholesale market and will therefore face higher wholesale energy costs as a result of the carbon price. While the carbon price increases wholesale energy costs, they are shown separately in Figure B.2.

- Green scheme costs (7%) Retailers incur additional costs for complying with Commonwealth and NSW Government 'green schemes' designed to support renewable energy generation, reduce emissions from the energy sector (and wider economy) and reduce energy consumption. These green schemes include the Renewable Energy Target and the NSW Energy Savings Scheme. These costs are passed on to customers in retail prices.
- Network costs (50%) The cost of building, maintaining and operating the transmission and distribution networks, which transport electricity to customers. Retailers are charged for using the network and pass on these costs to customers in retail prices. As discussed in section B.1.3, network prices are regulated by the AER under the National Electricity Rules.
- ▼ **Retail costs (10%)** include costs associated with operating a retail electricity business including billing, operating a call centre and earning a reasonable profit.



#### Figure B.2 Components of regulated electricity bills, 2012/13

Data source: IPART.