

**INDEPENDENT COMPETITION AND REGULATORY
COMMISSION**

Final Report

**Full Retail Contestability in Electricity
in the ACT**

July 2002

The Independent Competition and Regulatory Commission is established under the *Independent Competition and Regulatory Commission Act 1997* (ICRC Act). The Commission's functions are set out in section 7 of the ICRC Act

The Commission is made up of three Commissioners:

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FOREWORD

The Treasurer issued a reference to the Independent Competition and Regulatory Commission on 18 December 2001 to inquire into and provide advice to the Government on the benefits of extending full retail contestability for electricity in the ACT.

The Reference directed the Commission to consider a range of matters in arriving at its final advice. The Commission was to have regard to the costs and benefits of implementing FRC, paying particular attention to the impact the decision would have upon the competition payments that the ACT receives from the Commonwealth Government as a continuing participant in the National Competition Policy reforms. Clause 5 of the Competition Principles Agreement implicitly commits the ACT to implementing FRC if it cannot identify substantial benefits in maintaining the current level of restriction on competition.

In addition the Commission was to identify the customers using 100 Megawatt hours per annum (MWh pa) or less, the costs and benefits of FRC to those customers, any means of mitigating the cost of FRC upon the disadvantaged, and comment on whether deemed profiling (pricing based on “typical” usage by a “standard” customer) would be better than moving early to full individual hourly metering. The Commission was also asked to review reform undertaken in other jurisdictions, nationally and internationally.

The Commission has sought the views of stakeholders in undertaking its inquiry. An Issues Paper was released in January 2002 that raised the broad concerns brought to the Commission’s attention by the Government, the media and the community. A Draft Report was released on 17 May 2002. That report addressed matters raised with the Commission by ActewAGL, ACTCOSS and others and presented the Commission’s initial views on these matters. In this Final Report the Commission has considered comments made in response to the Draft Report and refined its findings accordingly.

Paul Baxter
Senior Commissioner
12 July 2002

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EXECUTIVE SUMMARY

Summary of Recommendations

- Full Retail Contestability for electricity should be introduced for all customers below 100MWh pa.
- FRC should commence in the ACT no later than 1 January 2003.
- Deemed local profiling should initially be used as the basis for the introduction of FRC.
- The ACT Government in consultation with the Commission and the electricity industry should undertake a public education program prior to the introduction of FRC to inform consumers of the impending introduction of FRC and its implications.
- The Government in consultation with the Essential Services Consumer Council should examine the possible need for additional support measures for relevant consumers who may suffer particular hardship as a result of the introduction of FRC.

Terms of Reference

The implementation of Full Retail Contestability (FRC) in electricity forms part of the overall strategy for reform of the electricity sector across Australia. However, while there has been some progress towards FRC at the upper end of the market in terms of usage of electricity, adoption of FRC has not been universally applied across all States and Territories.

It is in this context that the Commission received a reference to inquire into and provide advice to the Government on the implementation of FRC in the ACT in December 2001.

The reference required the Commission to consider a range of issues including:

- identifying and describing electricity market participants using 100 MWh pa of electricity or less;
- identifying the costs and benefits of FRC for ACT consumers using less than 100 MWh pa;
- the means and cost of avoiding or mitigating any adverse impacts on customers, particularly the disadvantaged;
- whether the ACT should adopt profiling or full metering;
- a comparison with other jurisdictions' experiences with FRC; and
- any other related matters.

The Commission has considered stakeholder views

In undertaking this review, the Commission has considered submissions from community organisations, the ACT's incumbent electricity supplier and distributor, ActewAGL, and government agencies in forming its views on the terms of the reference. The Commission has also had regard to reports prepared for ActewAGL

and the Department of Urban Services on the costs and benefits of implementing FRC in the ACT.

Consideration of experience in other jurisdictions

The Commission has examined closely the experiences of New South Wales (NSW) and Victoria in implementing FRC. Although the NSW market surrounds the ACT the Victorian market is also important to the Territory. Consumers in the ACT will naturally compare the ACT with those states to gauge whether they are worse or better off. Both NSW and Victoria opened their markets to competition earlier this year. While some commentators have argued that the comparative information from NSW and Victoria is not yet sufficient to make reliable judgements, the Commission is satisfied that a picture is beginning to emerge. The rates of customer transfer and the cost impact of FRC in these states gives the ACT useful guidance on what may happen here. The modelling in Attachment 1 draws on the experiences of both NSW and Victoria.

The experience in the United Kingdom (UK) also provides a useful perspective on the implementation of FRC. The UK experience differed from that of NSW and Victoria in that it had a higher customer transfer rate (churn rate) and significantly lower retail prices. Nonetheless, there are lessons to be learned from the UK should the electricity market be made contestable in the ACT. The Californian model is useful for the same reason. In California the normal relationships between supply and demand were disrupted and the market severely distorted as a result. It is considered in this report because it is a good example of what should not be done rather than a model of what should be done.

The difference between costs and benefits is small

The Commission has come to the view that there is no short term quantifiable net benefit arising from FRC. Rather, the Commission has found some evidence that the cost of FRC to smaller electricity users will increase marginally. However, the increase is not sufficient to put FRC out of the question.

The Commission's examination of both quantifiable and non-quantifiable costs and benefits shows that for the group of residential customers using less than 100MWh pa there will be a small increase in the overall cost of electricity of between 7% and 9%, or about \$6 per month, in a contestable market. The relative cost impact for consumers increases as the amount of electricity used decreases, that is smaller consumers will pay relatively more on their total electricity bills than large consumers in a contestable market. Large consumers will experience some price reductions. This in part reflects the final unwinding of cross subsidies that have continued to exist in retail electricity prices in the ACT.

The costs to network operators and suppliers of providing adequate IT and other systems to cope with a contestable market include the costs of developing systems to facilitate customer transfers, settlements between retailers and suppliers, and customer billing. These costs would not otherwise be incurred and so are directly related to FRC. However, it could be expected that in upgrading its IT systems ActewAGL will

introduce improvements advantageous to its own operations. In other words, despite the fact that the IT systems upgrade was undertaken to facilitate FRC, it will generate some benefits for ActewAGL. These systems-related costs are likely to be borne by all consumers. However, once they have been recovered, such one-off FRC costs should be eliminated from the price of electricity.

Regardless of whether FRC is implemented or not, electricity prices are likely to rise in the short to medium term as a consequence of market driven increases in the cost of wholesale electricity and in the retail margin. For the past few years ACT consumers have benefited from wholesale purchase contracts for electricity negotiated by ActewAGL at rates that have meant consumers pay up to 20% less for retail electricity than consumers of a similar size pay elsewhere. These arrangements will expire in the near future and low energy prices are unlikely to be sustained. Similarly, ActewAGL's current low regulated retail margin may be increased at the next regulatory reset. Whether or not FRC is introduced higher prices for retail electricity are therefore likely. Although independent of FRC, these expected price rises are mentioned because they will compound any price rises resulting from the implementation of FRC, but will occur regardless of whether or not FRC proceeds.

Finally mention needs to be made of non-price benefits. That is, in saying that there is unlikely to be a direct price benefit to small customers does not mean that other more generalised benefits may not be available, such as more responsive and flexible prices, the possibility of more innovative products and a greater range of products, and consumer choice. These will clearly benefit consumers, but by how much is difficult to estimate in advance.

Mitigating impacts on small customers

While small consumers are expected to pay more for their electricity due to FRC than they are currently paying, the Commission's modelling indicates that on average the costs will be relatively small. The Commission nonetheless expects that FRC would put some additional pressure on services such as the Essential Services Consumer Council (ESCC)¹ although it is not possible to say precisely how much of an impact it will have.

It should be noted also that although the Commission is anticipating cost increases of the order of \$6 per month for average residential consumers, there have been savings of \$1.40 per month for average consumers passed through as part of the 1 July 2002 electricity price adjustments. These savings reflect savings on transmission costs which have been passed straight through to consumers.

The Commission has considered whether some form of safety net could be provided for disadvantaged customers. However, the various arrangements considered were felt to be impracticable and not nearly as effective as the protection that a body like the ESCC can provide. For example, protection for a small group of consumers based on an assessment of disadvantage or deficiencies in competence, would be difficult to

¹ The Essential Services Consumer Council was established under the *Utilities Act 2000* to help consumers resolve complaints against utilities and to help ensure continuity of supply in cases of financial hardship.

target with precision and difficult to provide at a price equal to or lower than the competitive price. FRC costs would normally be shared across all customers. To remove some customers from that population would increase the cost of electricity to the remaining contestable customers. Thus, for example, to cut off the contestable market at say demand of 40MWh pa would only result in those consumers falling above this cut-off point having to bear all the cost of FRC. For larger customers that may mean being 'cherry picked' by other competitors in the market, with consequential additional increases in the cost of electricity to the remaining contestable customers in the ACT. The Commission believes that the numbers of customers who face difficulties with a contestable market should be relatively small, and within the scope of the ESCC to provide an avenue of relief. However, the Government may wish to consider whether any form of direct assistance could be provided in a targeted manner to particularly disadvantaged households.

There are other mechanisms that could be used to reduce the cost impact of FRC on smaller customers, one being by allocating some of the cost on a demand basis, rather than on a fixed cost basis. The extent to which such an approach may be effective, or necessary, in reducing an average cost increase of \$6 per month for residential customers will depend on the extent to which allocating more cost to larger, higher demand customers would increase the risk of those customers being cherry picked by other suppliers. Clearly there are limits in a contestable market on creating some form, albeit minor, of cross-subsidisation between different categories of customers.

The Commission believes that in the absence of a clear net benefit, other indicators need to be considered in making a decision on FRC. The Commission acknowledges concerns about issues such as consumer protection in relation to transparency of contract terms, periods and the provision of standard cooling off periods and controls on marketing behaviour. These issues are largely dealt with now under the *Utilities Act 2000* and related codes and service standards, and fair trading legislation. Any deficiencies in the existing regulatory framework will be addressed prior to the introduction of FRC.

Impacts of customer churn

The Commission has considered the risks associated with a potential loss of market share by ActewAGL. Losses of market share would affect the dividend payable by ActewAGL to the Government as a shareholder of ACTEW Corporation. However, that is a normal market risk and should not be a sufficient reason in itself for not implementing FRC. In any case ActewAGL's position as the market leader, the incumbent supplier and the network operator give it a strong market presence, brand identification and a large existing customer base. Indeed, making the market contestable by introducing FRC may well lead ActewAGL to lower domestic tariffs to a level which, it believes, will keep competitor suppliers at bay.

Further, there is no conclusive evidence to suggest that the rate of churn would be such as not to proceed with FRC. Experience in Victoria and NSW is that initial rates of churn are insignificant. In both jurisdictions churn has been less than 1% since the commencement of FRC in January 2002. At a similar rate in the ACT, and provided that it did not occur in only one category of customers, namely the larger customers,

the concerns about loss of market share by ActewAGL would be unfounded and any difficulties in relation to managing demand for transfers would be negligible.

Providing time for preparation of IT systems

ActewAGL as the incumbent supplier and network operator has raised the need for adequate time to be provided for its systems to be developed and tested before the market is opened. The Commission acknowledges this need but is aware that some of the required work has already been undertaken. The systems implementation process should not need more than three months. Hence, if a decision were taken by the end of July to adopt FRC for all customers, the necessary systems could be in place before the end of 2002.

Recognition of National Competition Policy obligations

The Commission has had to keep in mind a key driving force behind this inquiry. While the immediate costs and benefits do not provide an irrefutable case for FRC, the ACT Government's commitment to National Competition Policy (NCP) also has a bearing on the decision of whether to implement FRC or not.

In 1995, the Government entered into Agreements such that continued receipt of competition payments from the Commonwealth would depend upon continuing progress against the reform targets in the Agreements. One of the agreed reforms was the establishment of a competitive national market for electricity. It is questionable whether in the absence of a clear and significant net cost from FRC, the ACT could withdraw from or not honour that obligation by declining to implement FRC. Not to implement reform without a substantial evident cost argument would possibly incur a reduction in the competition payments to the ACT. The Government will need to weigh any benefits of not proceeding with reform against the loss to the Territory of some part of the competition payments.

Indeed if, as the Commission contends, an appreciable net benefit cannot be demonstrated for maintaining the current restrictions in the electricity market, the ACT, having already agreed to opening the electricity market under the NCP Agreements, is obliged to proceed with FRC.

FRC presents the ACT with a unique opportunity

The Commission is conscious that the present time is a watershed in deregulation and the drive to increase productivity in the economy. The ACT is surrounded by markets that have already moved to full contestability. Furthermore, the current ACT supplier, ActewAGL Retail, is actively involved in retail competition in these other markets. At the same time, at COAG's behest, there is a review of energy markets currently being undertaken by the Parer Committee². The findings of this Committee will deal *inter alia* with the question of the timetable for FRC.

² COAG Energy Market Review, chaired by the Hon Warwick Parer.

Notwithstanding the current deliberations of the Parer Committee, the Commission considers that given the move to FRC in NSW and Victoria and ActewAGL's involvement in these markets, the present opportunity to move to FRC in the ACT is one that should not be lost. The circumstances in which such a decision could be made in future may not recur or may not recur in such favourable circumstances. FRC establishment costs are estimated to be relatively small and could, in part, be spread across other markets outside the ACT in which ActewAGL is active, thereby lessening the burden on ACT customers. Certainly any new supplier entering the ACT market will have had to incur relevant FRC costs as part of their preparation for FRC elsewhere and will be less inclined to recover these costs in the ACT market as they seek to take customers from ActewAGL. This in turn will provide competitive tension that will help to constrain FRC cost pass through.

The value of this unique opportunity to open the electricity market should be given some weight in deciding whether all customers should be able to choose their supplier and level of service. It is therefore the Commission's view that the ACT should take the opportunity to make the electricity market for under 100MWh pa consumers contestable rather than close that market to competition for the foreseeable future.

The Commission's recommendation

Having considered the costs and benefits of introducing retail contestability to customers using less than 100 MWh pa, the Commission concludes that for the community as a whole the cost of FRC will be insubstantial. The Commission notes, however, that for smaller customers there is likely to be an additional FRC related cost and that, at least initially, there may need to be an additional response by the ESCC and the Government. That notwithstanding, the Commission considers that in the longer term, benefits will arise from a competitive market that regulation cannot provide.

The Commission also notes the potential ongoing loss of competition payments from the Commonwealth as a result of not implementing FRC. As well, the Commission is convinced that the decision to introduce FRC now is an opportunity that is unlikely to be available in future, and if it is it will be at a greater cost.

After consideration of the costs and benefits of moving to FRC and the costs and benefits of other regulatory options, the Commission recommends that the Government introduce FRC for all customers falling below 100MWh pa. The commencement date for FRC should take account of the time needed by the incumbent to finalise systems changes to facilitate customer transfers. Additional consumer protection measures may need to be developed and time needs to be allowed for that. Consumers will also need to be informed about the opening and operation of the contestable market, and about the respective rights and obligations of suppliers and consumers. The Government has an important role to play in this education task. Having considered these issues, the Commission believes that FRC should take effect from 1 January 2003.

1. INTRODUCTION

1.1 Background to the review

Together with other states and territories, the ACT has been working towards establishing fully contestable markets in electricity and gas since the Council of Australian Governments (COAG) entered into the National Competition Policy Reform (NCP) Agreements in 1995. The pace of progress toward achieving fully contestable markets was subject not only to the milestones set out in the Agreements, and subsequently agreed COAG deadlines, but also to a decision about whether there are net benefits to the community as a whole from fully contestable markets in each jurisdiction.

In the ACT the larger electricity consumers, that is consumers using more than 100 Megawatt hours per annum (MWh pa), have been made contestable as it is at this end of consumption that the greatest benefits of competition can be achieved. The Government is asking the Commission for advice about whether there are sufficient benefits for small electricity customers to warrant extending contestability to them, or whether small customers would be better off by remaining subject to regulated prices and conditions of supply.

In progressively opening its electricity market to competition, the ACT has maintained parity with the NSW and Victorian timetables for contestability. However, while NSW and Victoria opened their electricity markets to competition for all customers in January 2002, the ACT has delayed its market opening pending the consideration of advice about the costs and benefits of contestability for all customers in the significantly smaller ACT market. Concerns in the ACT Legislative Assembly that full retail contestability would not produce tangible net benefits to the community resulted in an inquiry into contestability that was incomplete when the Assembly rose for the election in October 2001. Early in its term the new Government sought advice from the Commission on the costs and benefits of a fully contestable market for electricity supply in the Territory. The Treasurer issued a reference for the Commission to inquire into, and advise on, the benefits of full retail contestability on 18 December 2001, with a final report expected in April 2002.

The Commission produced an Issues Paper for the Inquiry in January 2002 in which it invited submissions on the matters raised and on any other relevant matters. The Commission is required by the *Independent Competition and Regulatory Commission Act 1997* to issue a draft report to further stimulate and focus debate. The Draft Report was released on 17 May 2002 with submissions closing on 18 June 2002. The Commission received a number of further submissions. These submissions, and the submissions on the Issues Paper, are available on the Commission's website, www.icrc.act.gov.au.

After considering these submissions the Commission can see no reason to vary its original recommendation, namely that FRC be implemented in the ACT. However, in making that recommendation the Commission emphasises the need to allow enough time for ActewAGL, the incumbent electricity distributor and supplier, and the Government, to put in place any necessary systems and arrangements to support FRC.

The Commission sees public education about participating in the electricity market as being an essential component of the FRC preparations.

1.2 The requirements of the reference

The reference (Attachment 6) directs the Commission to consider the costs and benefits of the implementation of full retail contestability. The Commission is to take into account the Territory's obligations under the National Competition Policy Agreements, and include options for the ACT to either proceed as soon as management and administrative systems allow or not proceed at this time.

The Commission is also directed to:

- identify and describe the electricity market participants using 100 MWh pa or less;
- identify and quantify the costs and benefits (financial and non-financial) flowing from the extension of full retail competition for electricity in the ACT to customers using 100 MWh pa or less, including the effects of possible changes in prices for different categories of customers, including those who are socially or economically disadvantaged;
- advise on the means and costs of avoiding or mitigating any adverse impacts on consumers, particularly those socially disadvantaged;
- advising on whether or not the ACT should adopt deemed profiling of customer usage and the desirability or otherwise of moving to full metering;
- assess studies and/or experience in other jurisdictions with the implementation of FRC for the different classes of small business and residential users; and
- any other related matters.

In conducting its Inquiry the Commission is also required to give consideration to its objects under the Utilities Act and the Independent Competition and Regulatory Commission Act. These objects include:

- promotion of competition in the provision of utility services;
- promotion of ecologically sustainable development in the provision of utility services;
- protection of consumers' interests; and
- facilitation of an appropriate balance between efficiency and environmental and social considerations.

In addressing the terms of reference, the Commission has endeavoured to focus on the key issues, recognising that the ACT market is surrounded by the NSW market in which full retail contestability has been in place since 1 January 2002. Moreover, the ACT has obligations in its agreements with the Commonwealth, States and Territories that would require the ACT to extend contestability to all consumers in the absence of any substantial costs or other significant reasons for not making the market fully contestable. Thus, the Commission has taken the view that there would have to be significant costs and other disadvantages to the ACT economy for the Commission to recommend against full retail contestability. The Commission has outlined its findings on the balance of costs and benefits to the ACT in the text following.

1.3 Economic regulation in the electricity retail market

Economic theory suggests that market failure can justify the regulation of firms. In the absence of natural competition governments may need to intervene to enhance economic efficiency. Generally, market failure is associated with a particular good or service being provided by a single entity, a monopoly service provider. The distribution of electricity is cited as an example of a business where government intervention increases economic efficiency.

The distribution of electricity is a natural monopoly. That is, the average cost of distributing electricity actually falls over the entire range of output levels. As a result, the most efficient allocation of resources occurs with one set of wires distributing electricity and not from competition. While this is true in terms of the distribution networks it does not mean that the most efficient allocation of resources is achieved by a monopoly retailing electricity.

Distribution networks have other features that mean that a monopoly will be the most efficient provider of electricity. The question is, does an electricity supplier (or retailer) also enjoy these features? The distribution business enjoys a technical barrier to entry, while the supplier does not. The distribution business has other barriers to entry including the massive initial investment of capital required to establish a physical network. This results in the present provider having a huge advantage, due to the economies of scale, over any potential entrant into the market. However these economies of scale are not present in the retailing of electricity.

The formation of the National Electricity Market (NEM) has meant that electricity can be bought or sold by retail businesses without the need for a distribution network. The introduction of FRC in the ACT market will allow new market entrants into the retail market and provide consumers with the benefit and protection of competition. In this competitive environment the interaction between firms and consumers is likely to produce efficient levels of service. If the cost of offering a service is greater than the amount consumers are willing to pay, the service will not be offered, or will be withdrawn to avoid the providers of the service making a loss. Furthermore, if a supplier is charging excessive prices, another supplier may enter the market, charge a lower price, and win consumers from the previous supplier.

Government intervention in markets should be avoided and, if it is necessary, should be as unobtrusive as possible. Competitive markets are the most efficient method of resource allocation. There is no evidence, namely there is no identifiable market failure, to suggest that a contestable retail electricity market will not achieve a similar outcome.

2. CUSTOMER PROFILE

In the reference, the Commission was asked to identify and describe customers using less than 100 MWh of electricity per year (MWh pa) in the ACT. These are the customers that would become contestable at the introduction of FRC in the ACT.

2.1 Who are the customers affected by FRC?

Table 2.1 below shows that out of a total of 136,600 electricity customers in the ACT, 135,000 customers consume less than 100MWh pa and are currently non-contestable. These customers constitute 99% of ACT electricity customers, although they account for only 53% of electricity consumed in the ACT.³ All residential customers are non-contestable customers. Many small businesses are also included in the less than 100 MWh pa group of customers. Residential customers, however, are concentrated in the consumption level of less than 15 MWh pa. While there are some larger residential customers above the 15 MWh pa level, they are few by proportion.

Data on consumer numbers from ActewAGL confirms that there is a significant concentration of customers below 40 MWh pa. Only 2000 customers, or 1.5% of small customers, use between 40 MWh pa and 100 MWh pa of electricity per year. By making those customers contestable and continuing to regulate prices for consumers using less than 40 MWh pa would only add an additional 5% of load to the contestable total. Under those circumstances 48% of the load would remain franchised⁴.

Table 2.1: ACT Electricity customer profile

Customer Class		Customer Numbers
>100MWh pa	Business	1,600
≤100MWh pa	Residential	123,500
	Business:	
	metered	11,000
	unmetered	500
		135,000
Total customers		136,600

(Source: ActewAGL Electricity Inquiry Full Retail Contestability, Submission to the ACT Independent Competition and Regulatory Commission, February 2002)

The 1% of customers who are contestable currently consume almost half (47%) of the electricity sold in the ACT.⁵ These consumers include such institutions as hospitals, universities, high rise buildings, government departments, shopping centres, service stations and restaurants.

³ ActewAGL Electricity Inquiry Full Retail Contestability, Submission to the ACT Independent Competition and Regulatory Commission, February 2002, p.12.

⁴ ibid p.13

⁵ ibid, p.12

2.2 Non-contestable customers and franchise customers

Currently, consumers using less than 100 MWh pa are termed franchise customers. Franchise customers do not have a choice about which licensed supplier of electricity will supply them. Franchise customers are connected to the franchise supplier in the ACT, ActewAGL Retail. The conditions under which they are supplied as franchise customers is spelled out in the terms of the standard customer contract that is provided for in the Utilities Act and which is approved by the Commission. All franchise customers are deemed to be parties to a standard customer contract relating to each new connection. The standard customer contract lays out the rights and obligations of the customer and the supplier. The Utilities Act and its attendant codes of practice prescribe the rights and obligations of the parties, standards of service and a range of customer protection measures.

Franchise customers also receive regulated prices for the supply of retail electricity and related services. The Commission determines franchise prices under the *Independent Competition and Regulatory Commission Act 1997*. Regulated prices provide customers with relatively efficient prices, but not necessarily the same prices that a competitive market might provide. Moreover regulated markets cannot provide consumers with the range of products and types of packages that are available in contestable markets. These product offerings potentially deliver benefits across a number of services, not just electricity. Regulated pricing cannot emulate those market arrangements and does not provide incentives for such innovative marketing.

2.3 Small customers receiving concessions

Included in the group of residential customers who consume less than 15 MWh pa are those residents receiving concessions from government. Concessions include subsidies paid to pensioners, social security recipients and other special cases. The concessions are reductions in prices for electricity consumed. Determining who should receive benefits and the amount they should receive is a matter for the Government, not the Commission. In responding to the reference the Commission has assumed that the Government's concessions policy will continue unchanged. The Commission has not tried to anticipate what actions the Government may take in response to a decision to implement full retail contestability, although the Commission is aware that a review of concessions and related policy is being undertaken. However, the Commission has suggested that, should some customers be unduly disadvantaged by FRC, consideration should be given to lessening the impact through some form of targeted assistance.

3. THE COSTS AND BENEFITS OF FRC IN ELECTRICITY

3.1 Overview

The Commission has considered a range of quantifiable and non-quantifiable costs and benefits of FRC to determine whether there is a clear indication of a net benefit or cost from its introduction. If there is a clear significant net cost the ACT could decide not to proceed with FRC, having satisfied the tests provided in clause 5 of the Competition Principles Agreement for maintaining a restriction on competition.

3.2 Quantifiable costs and benefits

In order to address the question of the relative costs and benefits of moving to FRC, the Commission has prepared a financial model of the likely cost to consumers of FRC (see Attachment 1). Based upon its analysis using this model, and drawing from other empirical information available to it, the Commission finds that costs will increase as a result of implementing FRC and that in relative terms the cost will impact more on smaller consumers, particularly those consuming less than 15 MWh pa. However, the cost involved is considered to be relatively modest. The Commission's modelling has assumed a worst case scenario and has used comparative data from NSW and Victoria where the costs are generally greater than in the ACT. From this modelling, the Commission has determined that the average cost of FRC to residential customers in the ACT would be about \$6 per month.

In assessing the cost and benefits of FRC, the Commission has taken into account both quantitative and non-quantitative costs and benefits. The modelling of quantitative costs has been based on a model that has sought to compare the cost of electricity paid by consumers under a scenario where FRC exists against a scenario where FRC does not exist. In order to do this, the Commission has assembled information to allow the build up of a final price based upon the summation of:

- efficient operating costs and margins;
- costs of purchasing energy; and
- regulated network tariffs.

Based on this approach, the Commission has concluded that the average effect of FRC on prices for residential customers would be an increase in the order of 7% to 9%. This is above the Commission's earlier estimate and includes some revisions to the assumed flow through of electricity generation costs which have already been announced and included in ActewAGL price changes announced to take effect from 1 July 2002.

In modelling these likely cost increases, the Commission has been conscious of the range of estimates provided by various groups, including some higher estimates provided by ActewAGL in their public submission to this inquiry. In seeking to reconcile these various estimates, the Commission has had to make numerous adjustments to bring the estimates on to a comparable basis. The average increase for

residential customer of between 7% and 9% reflects the outcome of that refinement process.

The anticipated increase of around \$6 per month needs also be seen in the context of savings of around \$1.40 per month that have been passed through to consumers in the recent 1 July 2002 price adjustments announced by ActewAGL. These savings reflect savings in electricity transmission costs which have been passed through to the ACT as the result of a recent ACCC review of electricity transmission charges. Thus, the net impact of these recent changes will see prices in the ACT increase on average by less than \$5 per month.

In addition, included in the anticipated FRC related price increase are increases in the retail margin and some adjustments in electricity generation prices. These cost increases amount to around \$1.35 per month. These cost increases would have occurred regardless of the adoption of FRC. Thus from a net cost impact perspective, allowing for these cost increases, the direct related FRC costs are of the order of \$4.65 per month of which the recent transmission cost savings of \$1.40 per month effectively reduce the net additional charge to \$3.25 per month on average.

One of the key assumptions in the model is that most consumers will be using deemed load profiling rather than full metering (deemed load profiling is discussed further in chapter 4). If full metering were assumed to be the standard for a fully contestable market the costs for small customers would escalate considerably, reflecting the additional cost of new metering systems.

Whilst the costs of FRC are immediate and specific, the benefits are generally delayed and diffuse and therefore difficult to measure. Clearly if costs are to increase for some consumers then this will be seen as a 'cost' to these consumers. But from its modelling the Commission has been able to demonstrate that there will potentially also be cost savings for some consumers. These will primarily be the larger consumers who can expect to be offered attractive lower prices by suppliers.

Smaller consumers may also be offered cheaper prices than those currently offered by ActewAGL Retail, but as noted below, there is already a considerable price advantage in the ACT such that all domestic household consumers are paying prices less than those on offer in other states.

3.3 Non-quantifiable costs and benefits

Non-quantifiable costs

In relation to non-quantifiable costs and benefits, the Commission has considered costs in the areas of:

- credit risk;
- marketing costs;
- connection/disconnection policy impacts on costs; and
- costs arising from regulatory activity.

The Commission has not been able to quantify these costs, although they are considered to be small.

Credit risk

Credit risk has been identified as a problem in the UK. Credit risk is the potential for customers to accumulate large debts with one supplier before moving on to another, thereby maintaining access to electricity supply even though they have not paid their bills. The problem of credit risk is not specifically addressed in the ACT's utilities regulation but is recognised as a possibility in the Territory. At this time nothing prevents a customer transferring between suppliers even though there may be outstanding debts to a former supplier. However, a transfer does not extinguish the debt and aggrieved suppliers have recourse to the normal debt recovery avenues to recover any monies owed.

Marketing costs

Marketing costs could increase as a result of FRC. The dollar value of this increase is unknown at this time and depends upon the level of competition in the market. Marketing costs are largely unnecessary for franchise customers although they do exist and, to the extent that they are warranted, are currently allowed for in ActewAGL's network prices. In a competitive market however, these costs will be more important especially for suppliers. In Victoria and NSW regulators have reviewed marketing costs and concluded that these costs are negligible and, although increasing as competition becomes more general, will remain minor. Unlike other FRC costs that should have a finite life, marketing costs will become a permanent cost of operating retail businesses, but will be partially driven out of the cost pass-through by competition between suppliers.

Changes to connection/disconnection policy

ActewAGL has suggested that changes to its connection and disconnection policies and practices will incur costs. ActewAGL's current practice is to leave premises connected for at least 2 weeks before disconnecting them. It advises that in most cases premises are reoccupied in this time. Under FRC the local supplier will relinquish responsibility for a site as soon as it is vacated. Sites will therefore need to be disconnected and reconnected every time a premise is vacated. The additional site visits, according to ActewAGL, will add to network costs that will, in turn, pass on to consumers.

It should be pointed out that ActewAGL's policy on connections and disconnections is discretionary, it is not a regulatory requirement. The Commission's view is that ActewAGL should not be compensated for changing discretionary policy.

Regulatory costs

Over the past 18 months many of the regulatory requirements for FRC have already been met as part of the implementation of the new regulatory regime under the Utilities Act. For example, the Commission has already agreed to Supplier of Last

Resort⁶ arrangements (which have been tested with the market manager, the National Electricity Market Management Company (NEMMCO)), developed a Customer Transfer Code, and is reviewing market conduct issues. Later in 2002, the Utilities Act is due to be reviewed, at which time a number of issues (and associated costs) relating to retail contestability will be considered. The Commission anticipates some additional regulatory requirements but considers that FRC-specific regulatory costs will still be negligible.

Non-quantifiable benefits

The Commission believes that FRC will produce a range of benefits but notes that they are diffuse, long-term and difficult to quantify. For example, the Commission expects competition to lead to electricity suppliers improving their service quality and developing more innovative products and services in order to attain and/or retain market share. In addition, there are the benefits of customer choice and of having a more responsive, competitive electricity market. Other, more general economic and financial benefits include fulfilment of the ACT's electricity reform commitments under NCP (and therefore not forfeiting Commonwealth NCP payments), alignment with the competitive natural gas market in ACT and with competitive electricity markets in Victoria and NSW.

3.4 Concluding comment

The Commission's view is that, on balance, the non-quantifiable costs and benefits of FRC are insubstantial and do not make much difference either way to consumers in the ACT. The Commission has found that there are likely to be marginal net benefits to some large consumers and marginal costs are expected to be passed on to a large number of smaller consumers. The Commission estimates that the average additional cost will be in the order of \$6 per month for residential customers and the potential average saving to business customers in the < 100 MWh pa consumption group will be in the order of \$12 per month. The additional costs however will be in part alleviated by savings of around \$1.40 per month from reduced transmission costs which have recently been passed through to ACT consumers and incorporate costs of around \$1.35 per month that would have otherwise been the subject of a pass through to consumers at the next regulatory price path determination.

The Commission considers that there are general long-term benefits from introducing FRC in the ACT including increased customer choice, development of a truly competitive electricity market, and no curtailment or reduction in the Commonwealth's NCP payments to the Territory. Based on these non-quantifiable, potential benefits, the Commission considers that the implementation of FRC in the ACT will have a positive net benefit.

The form of FRC that is introduced would however need to address concerns that small consumers may be disadvantaged. The Commission notes that the cost impact on smaller customers could be reduced by adopting a cost allocation methodology that

⁶ A Supplier of Last Resort is the electricity supplier to whom customers of a defaulting electricity supplier are compulsorily transferred under a contract arrangement.

does not allocate costs equally between customers. Rather, if costs were to some extent allocated on the basis of the volume of electricity consumed, the impact on residential customers would be less than the \$6 per month suggested by the model. The Commission is mindful though that there is a limit to how much large volume customers could cross-subsidise small volume customers. Bearing in mind that how costs are allocated is at ActewAGL's discretion, it will be less inclined to increase prices at the large volume end of the market to reduce the cost increase for smaller consumers as this would increase the risk of them losing larger customers. The Commission also does not wish to encourage cross subsidisation solutions, preferring more direct and targeted support to disadvantaged groups where appropriate.

4. OTHER COST/BENEFIT ISSUES RAISED IN SUBMISSIONS TO THE INQUIRY

The Commission received submission from a number of organisations. The names of the organisations that contributed to the Inquiry are listed at Attachment 7. The submissions raised a range of issues that have a bearing on the overall costs and benefits of FRC and on how FRC might be implemented. These are discussed below.

4.1 How much more will customers have to pay?

In its Draft Report the Commission estimated the FRC impact on customers at between 3% and 5%. Subsequent remodelling by the Commission to take into account primarily changes in generation costs has resulted in a revised estimate of the average impact on residential customers of between 7% and 9%. This impact reflects the immediate quantifiable costs of FRC and does not take into account the cost of other changes that are not specific to FRC. Future potential changes in generation or transmission costs (including the recent \$1.40 per month saving in transmission costs) or additional costs arising from government charges that might arise were excluded from the estimate of the impact of FRC itself. However, the retail margin and some minor costs were increased in the calculation of the FRC costs (amounting to \$1.35 per month for an average consumer) even though these cost increases are likely to occur regardless of whether FRC is adopted.

ActewAGL's comments on the Draft Report raised the prospect of further additional costs that might arise from the introduction of FRC, but not necessarily specifically FRC costs. ActewAGL pointed to the potential costs of:

- increasing retail margins in a competitive environment. ActewAGL claims that the profit margin allowed under the current regulated price is unsustainably low and that in a competitive market the margin is likely to be higher and still not make the ActewAGL price uncompetitive;
- losses of large customers from cherry picking by competitors would result in higher costs for small customers. With the retail cost of FRC allocated across the load supplied to customers, were a large customer to be lost the load across which the allocation could be made would decrease and the cost per unit of electricity supplied for the remaining customers consequently greater;
- losses as a result of customer transfers. These costs arise from the additional administrative costs associated with transfers. A large number of transfers (high levels of customer churn) would add substantially to the network service cost;
- additional costs of IT systems for both retail and network businesses to facilitate transfers.

The Commission has considered these costs but believes that they should either be excluded from any estimates of the impact of FRC on customers or have already been included in the Commission's estimates. The IT costs for both network and retail, for example, have been recognised in the Commission's model. The Commission has also included some cost for churn. The Commission's reaction to the other costs

claimed is that they represent risks that could conceivably, but are unlikely to, occur. The level of churn projected in recent reports on FRC prepared for government and ActewAGL have been at levels of around 20%. At these levels there would be grounds for some concern about the risks identified by ActewAGL and adding substantially to the cost. However, the level of churn in both NSW and Victoria has been low to date. There is no reason to believe it would be any higher in the Territory.

The Commission's modelling of the average impact on customers' electricity bills has provided for an increase in the retail margin. The model estimated the increase in retail margin at 3%, at present the margin is about 1.4%. The model clearly indicates that the impact of the margin remains small, even providing for almost double the present margin. However, it still amounts to an additional cost of over \$1 per month for an average consumer.

The most substantial risk seems to be that arising from cherry picking of larger customers. ActewAGL has argued that cherry picking would occur when the retail prices offered to large customers by ActewAGL increased by a degree that allowed that price to be undercut by a competitor. Larger volume customers are more attractive to suppliers than smaller ones because the revenue to be made on larger volumes is greater than on smaller ones at a lower cost of servicing those customers. Since consumers using more than 100 MWh pa have become contestable, ActewAGL has lost some customers to other suppliers. However, the bulk of large customers remain contracted to ActewAGL. With FRC there is likely to be a modest benefit for large customers, which will enhance ActewAGL's position rather than weaken it. Even if some of the cost impact of FRC were spread across larger customers to reduce the impact on smaller customers, the increase is unlikely to be sufficient to encourage large customers to transfer to an alternative supplier. The judgement about how the FRC costs would be allocated in a competitive market would be up to ActewAGL. The Commission's view is that there is room for ActewAGL to make decisions about allocating costs without risking losing large customers.

One of the issues for the Commission in responding to ActewAGL's submission was the lack of detailed costs for each of the risks identified in that submission. In the absence of those costs it is difficult to evaluate the claims made in the submission.

However, having reviewed the estimates prepared and presented from its own analysis, the Commission believes that the impact of FRC in terms of direct cost increases is more likely to be in the range of 7% to 9% rather than the 13% to 18% presented by ActewAGL.

4.2 Costs of continued regulation

Several submissions have suggested that electricity prices for small customers should continue to be regulated or, that if FRC is introduced, it should not extend beyond the 40 MWh pa level, at least in the short term. The Commission does not support either of these suggestions.

In a competitive market firms and consumers are making resource allocation decisions based on their willingness to pay for goods and services. Due to regulatory lag, regulators cannot expect to be able to respond to market signals as quickly or as

efficiently as a competitive market. When regulators set retail rates they do so for large classes of customers and assume that they all have identical preferences. To treat all consumers below 40 MWh pa as requiring special assistance would be to seriously misinterpret the nature of the market and in so doing potentially create other distortions.

Retail competition is currently open for all consumers using more than 100MWh pa. Any increase in the level of competition should include all sectors of the retail market. A movement to anything less will represent a deadweight loss and reduced efficiency. For example, reducing the competition threshold to 40MWh pa would be difficult and costly to administer. It would mean maintaining a dual electricity market, that is one comprising a regulated and a non-regulated segment, much like the present one. However, the current arrangements were only ever meant to be temporary and do not reflect the full regulatory costs.

At the time of the last regulatory price reset it was assumed that FRC would be introduced early in the five year price path period and that the dual system would be phased out. If a dual system were retained the regulatory arrangements would need to be modified dramatically. Detailed investigation would be required into what is an appropriate retail margin, an issue that has been the subject of some concern to ActewAGL as it believes that the margin previously set by the Commission as a temporary arrangement underestimates the correct retail margin requirement. The regulator would also be required to set a standard offer for all franchise customers thereby increasing the costs of regulation and the potential problems of regulatory lag. ActewAGL, as the incumbent service provider, would be required to maintain separate accounts for its contestable and non-contestable customers, adding to the overall regulatory costs.

Much of the work on IT and billing systems that is currently being contemplated as part of the move to FRC would still need to occur. However, these costs would have to be met by a smaller customer base as the vast majority of consumers of electricity in the ACT fall in the below 40MWh pa category. Thus, there would still be a cost to electricity consumers in the ACT, but these costs would fall disproportionately on a small group of customers or would be met by ActewAGL at a cost to its ultimate shareholders.

It is the Commission's belief that the adoption of a 40MWh-entry point into the contestable market will cost more in the long run than the cost of introducing FRC for all categories of customers. These costs will ultimately pass through to consumers through increases in tariff charges or will impact on individuals paid to ActewAGL's stakeholder. While in the short-term adoption of a 40MWh pa cut off may continue to keep prices at current levels, in the long-term it has the potential to distort price signals and furthermore it will not prevent some cost increases such as an adjustment to the retail margin, from flowing through to consumers.

4.3 Can residential customers be protected from increasing prices by not extending FRC to all customers?

The Commission is of the view that there are pressures in the market that will result in increased prices whether the electricity market is opened or not. For some years ACT

customers have enjoyed electricity prices significantly lower than the national average. ActewAGL estimates that the prices are about 20% lower than those paid in other jurisdictions⁷. These low prices have been made possible by the attractive wholesale contracts ActewAGL currently has with generators. However, these contracts will expire in the near future. Should ActewAGL be unable to renegotiate contracts at such low prices again, the wholesale price for electricity will rise. There is no reason to expect that the Commission, in setting a regulated price, would not allow these market driven and determined price increases to pass through to consumers. Similarly, at the next regulatory reset the retail margin could be increased. When the first five year price path was set for electricity, ACTEW (now ActewAGL) argued strongly that the retail margin had been set too low, although this was in part compensated for by the margin allowed on electricity purchases. ACT consumers are therefore likely to pay more than they are currently paying in order to meet higher generation costs and retail margins whether FRC is implemented or not.

Whilst FRC has no bearing on these market forces it may add slightly to the costs for residential customers over and above any increases that flow on from increased electricity wholesale prices and retail margins. The cost impacts of FRC itself will gradually reduce as transitional costs are recovered. Only additional administrative costs (such as marketing costs) would have a long term impact on prices and even these costs are likely to be tempered by the impact of competition between suppliers. Whereas competitive markets are able to respond quickly to change, regulators are restricted to periodic reviews and price setting processes and are therefore less flexible. Once adjustment costs have been recovered, competition will serve to restrain the pace of price increases more directly and responsively than a regulator is able to do.

However, the Commission cannot guarantee that in determining future prices for a regulated market that the relatively low prices that residential customers in particular have enjoyed could be maintained. The Commission cannot prevent legitimate price increases occurring upstream of the ACT from impacting on distribution and retail prices in the ACT. Furthermore, the Commission is obliged under its objectives under the *Independent Competition and Regulatory Commission Act 1997* to achieve efficient and competitive prices on behalf of consumers. In doing so the Commission would be unable to justify regulated retail prices that did not reflect costs in the long run. An issue for this inquiry is whether by not introducing FRC, electricity prices could be contained. The short answer is no. FRC will add marginally to this price increase but will not be the reason for the price increase. Electricity prices will change in response to market conditions, whether FRC is introduced or not.

4.4 Can the impact of FRC be lessened?

The reference requires the Commission to give attention to ways in which the impact of FRC can be lessened. The Commission has estimated that the price impacts will be relatively more significant for smaller consumers in percentage terms. This is borne out by virtually all other studies undertaken. However, this impact could be lessened to some extent by using an allocation methodology that avoids allocating FRC costs on a fixed constant dollar rate per customer.

⁷ ActewAGL February 2002, p.17

Cost allocation by usage

In absolute dollar terms, the Commission estimates that the impact of FRC related price changes on households will be small, namely in the order of an extra \$6 per month. The extent of the impact of FRC on particular customer categories is more difficult to gauge. The recent study on poverty by the ACT Council of Social Service (ACTCOSS) Poverty Task Group estimates that 8.5% of the ACT's households are in poverty.⁸ This equates to just under 10,000 households in absolute terms. In terms of overall household expenditure the study indicates that fuel and power expenditure represents about 2.7% of total expenditure or an average of \$20.10 per week.⁹ On the face of it, if ACTCOSS' estimates are accepted, the number of vulnerable households as a proportion of total residential customers is small. Likewise, the relative impact of FRC costs on average fuel and power expenditure of around \$1.50 would be small. Nonetheless, it will mean an increase in overall household expenditure for a number of households in the ACT and for the 8.5% of households that fall into the Task Group's 'poverty' category, the increase would be of the order of 7.5%.

The question is, should FRC not proceed in order to protect these households that will incur a price increase. The Commission has considered this issue and believes that FRC should not be curtailed simply to protect this group of consumers. Restricting access to competitive markets is not the best method of assisting consumers facing these difficulties. Regulation of markets is appropriate where there is, *inter alia*, the potential for market power to be abused. However, social policy outcomes are often best achieved through programs targeted to those in the greatest need. The solution then, is not to restrict choice but to assist people to exercise choice. Where customers are unduly, adversely affected by FRC they could, for example, be assisted through some form of direct concessions.

Strategies to reduce the impact of cost flow throughs for smaller consumers could also be employed. By apportioning the cost on the basis of actual consumption, rather than a fixed constant dollar amount per consumer, a greater share of the FRC cost burden can be passed on to those who are consuming more while lessening the burden for those who consume less.

However, there are some limitations to a demand related approach to cost allocation. Firstly, care needs to be taken to not overload the large volume customers. Once contestability is introduced, new suppliers are initially likely to cherry pick larger demand customers, that is to target these customers with competitively priced offers. An allocation of supplier FRC costs on a consumption basis will obviously move the recovery of these costs more towards larger customers. If a competitive supplier has recovered their FRC costs elsewhere, they could undercut the price offered by the incumbent supplier. Should these customers transfer to other suppliers the size of the pool over which total costs can be spread will be reduced and the electricity prices for those customers remaining in the pool increased accordingly. Thus, there is a limit to the extent to which this form of cost recovery can be achieved, at least in terms of the supplier's FRC costs.

⁸ ACTCOSS Poverty Task Group, Building the Profile, Report of the Research Phase of the ACT Poverty Project, Paper Number 3, December 2000, table 2, p. 10.

⁹ *ibid*, table 7, p.25.

For the distributor, or network operator, there is less of a competitive restraint on cost allocation using demand levels. Provided the regulator has agreed, theoretically at least, the network operator could allocate all the relevant FRC costs on a demand basis, although in practice there is more likely to be a combination of a fixed component and a demand related component in any cost allocation methodology. However, this creates potential regulatory difficulties in ensuring that the distributor or supplier is not over-compensated for the costs incurred. This would occur if demand outcomes were less than projections, leaving the distributor or supplier unable to recover all their costs.

In addition to these potential difficulties, there is the fundamental problem that small levels of consumption do not necessarily equate to socially disadvantaged households. A household with a potential claim of being socially disadvantaged could equally be a larger consumer as a small consumer. Thus, these mechanisms linked to consumption levels represent a very poor method of targeting assistance to where it is most needed.

4.5 Consumer protection

A number of submissions raised concerns about consumers' ability to participate in the electricity market under FRC. ACTCOSS was especially concerned about the difficulties people would have who are ill, disabled or economically disadvantaged.¹⁰ Consequently ACTCOSS, and others, have pointed to the need for consumers to be educated about operating in the market and having access to information about the quality of services.

The Commission shares these concerns and agrees with the suggestions made by ACTCOSS and others for adequate consumer protection. The Commission notes though that a large number of safeguards are already provided in the Utilities Act and its associated instruments, as well as in fair trading legislation. The Utilities Act aims, amongst other things, at providing a reliable market that is responsive to the needs of consumers. The Act provides for standard contracts and a range of other consumer protection measures that are further elaborated in such codes of practice as the Consumer Protection Code.

The *Door-to-Door Trading Act 1991* regulates the marketing practices of door-to-door traders including electricity suppliers and marketers acting on their behalf. This Act specifies certain requirements in relation to contracts negotiated through contact initiated by the supplier or marketer including the need to set out in full all contractual terms and costs, and to provide a ten day cooling off period. There is also the *Fair Trading Act 1992*, which regulates the sale of goods and trade practices.

The Commission acknowledges that some amendments to existing regulations, particularly the Consumer Protection Code, will be necessary. The utility regulations were designed with the current market structure in mind and it was recognised that they would need to be amended and augmented for a competitive market. This work

¹⁰ ACTCOSS Submission to the Independent Competition and Regulatory Commission Inquiry into Full Retail Contestability for Electricity in the ACT, February 2002, paper no 03-02, p. 9.

has already commenced, and further steps will be taken to put in place protections to address the concerns raised by ACTCOSS and the ESCC.

To help consumers participate effectively in the market measures will also need to be taken to educate people about FRC and to help the disadvantaged, in particular, through ongoing advisory and/or advocacy services. Information provided to consumers should be in a form they can comprehend, be easily accessible, and address such issues as the choices consumers have and any constraints on those choices, what to consider when making a choice, negotiating contracts, and the availability of remedies and safeguards.

Some submissions received were also concerned about the continuity of electricity supply under FRC. The Commission considers that such concerns are unfounded. The consumer's right to be connected will be retained under FRC although supply may not necessarily be through the consumer's chosen supplier. Where a consumer represents a high risk for a supplier, that supplier may decline to enter a contract with that person. Alternatively the contract may reflect the consumer's credit history by requiring a security deposit or charging a premium to reflect the risk. In lieu of all other alternatives, a consumer will have recourse to the local supplier.

4.6 Pricing options available under FRC

The Commission notes suggestions that prices for small customers should be capped to provide a measure of protection for consumers. While sympathetic with the desire to protect certain groups of consumers, the Commission is opposed to the proposition that price caps be applied to prevent prices for small consumers rising above a certain level.

The Commission believes that such intervention could have severe effects on the market. California is a case point. The imposition of price caps there resulted in unsustainably low prices that benefited customers in the short term but produced substantial long-term unavoidable cost implications and the virtual collapse of the electricity market. Although the Californian experience is an extreme example it does illustrate how price capping can mask signals about the operation of the market.

The potential costs of a price capping arrangement are such that the Commission would not advise adoption of this measure. The Commission notes that in Victoria and NSW the Government has put in place price control measures that will moderate price movements. As measures they are less likely to produce the dire consequences seen in California but can be expected to impose regulatory costs and risks, additional administrative costs and higher levels of regulatory and political intrusion in the market. Intrusion almost inevitably means that risks are increased and the cost of those risks is transferred from industry to regulators and governments, and ultimately, to consumers.

The Commission concurs with ActewAGL's submission on this issue, that the imposition of strict price capping or control arrangements is undesirable and costly for consumers.

Under FRC it is the Commission's view that it should not be responsible for the pricing options made available to the public by suppliers. Suppliers should be free to set prices at levels that they felt best represent the cost of providing an additional unit of electricity. Under a competitive market these prices would equal the marginal cost of providing the additional unit of electricity. Suppliers would be free to structure tariffs so that they best recovered their costs.

The Conservation Council of the South East Region and Canberra (the Conservation Council)¹¹ and ACTCOSS have submitted that there is a possibility of suppliers charging low rates for metered electricity but structuring tariffs so that they collected a high fixed supply charge. The Conservation Council further notes that this would effectively penalise households for adopting energy efficient measure.

Whilst the introduction of FRC will not restrict suppliers from offering higher fixed charges in return for lower metered rates of electricity, nor will it require them to offer fixed charges at all. In a competitive market suppliers will be under pressure to provide services demanded by consumers. For example, suppliers may be free to offer various fixed charges, similar to the mobile phone market, with customers choosing which tariff is best structured to their consumption needs. If a particular supplier offers a high fixed charge with a lower rate for metered electricity another supplier is free to enter the market and offer a tariff with a lower fixed charge with a higher rate for metered electricity.

4.7 Bundling of goods and services

A number of submissions raised concerns about the types of products that might be offered customers under FRC and the marketing of products, generally. There was particular concern about the "bundling" of electricity supply with other goods and services¹² and the appropriateness of the incentives that suppliers might use to attract consumers¹³.

The ESCC is concerned, for example, that bundled contracts have the potential to confuse the less informed electricity consumers. Under present arrangements suppliers are not prevented from offering bundled goods and services. However, bundles are not common. Should bundling become a feature of the electricity retail market the Commission would expect full disclosure of the true fixed and variable costs. Suppliers offering household goods would therefore be expected to display the full costs paid by the consumer over the entire billing period. Furthermore, the supplier would be expected to disclose the average yearly consumption of the good to the consumer. Full disclosure will reduce the confusion and combined with education programs it will provide consumers with enough information to make informed consumption decisions.

¹¹ Conservation Council Submission to ICRC Issues Paper Inquiry into Full Retail Contestability for Electricity in the ACT, February 2002.

¹² "Response to the ICRC Issues Paper: Full Retail Contestability for Electricity in the ACT", Essential Services Consumer Council, February 2002.

¹³ See also Conservation Council, op cit.

4.8 Environmental considerations

The Conservation Council was concerned that FRC could lead to increased greenhouse gas emissions. It submitted, for example, that high energy consuming goods could be included in bundles offered to consumers thereby increasing energy consumption and greenhouse gas pollution. The Commission agrees that there is a risk of this occurring but considers it to be small for a couple of reasons. As noted above, although bundles may be offered under the current arrangements they are fairly uncommon. Whilst some bundling is occurring in NSW and Victoria, the bundling tends to be of services (eg electricity and gas) rather than of goods and services. The Commission does not think the situation will be any different in the ACT. The Commission is therefore of the opinion that FRC will not, in itself, lead to increased greenhouse gas emissions.

The Conservation Council is also concerned to ensure that if FRC does proceed it is introduced as a comprehensive policy package¹⁴. The Council suggests that the package include a range of environmental initiatives, for example:

- binding greenhouse benchmarks for electricity suppliers;
- mandating the achievement of energy efficient measures; and
- energy efficiency retrofits.

The Commission notes that the introduction of FRC provides a good opportunity to implement broader environmental initiatives such as those suggested by the Council. The precise form and cost of these additional environmental initiatives will need to be brought forward to Government for consideration.

4.9 Impact of FRC on the Territory budget

ActewAGL raised the prospect of its annual dividend to the ACT Government being reduced as a result of FRC. That is, should ActewAGL lose some of its market share to competitors the dividend to the Government may be reduced. Although a cost to Government, the Commission has not taken it into account in its calculations because if the benefit foregone by the shareholders is passed on to consumers it may actually entail a benefit. Likewise, the pressure competing suppliers place on ActewAGL to provide services that are efficient and meet consumer needs could also be considered a potential benefit to consumers.

The Commission considers the risk of ActewAGL losing significant market share to competitors small and further believes that, as long as the Government is aware of this risk, it should be excluded from FRC considerations. ActewAGL's dominant market position gives it a considerable competitive advantage that should be an adequate protection against either loss of market share or cherry picking of desirable customers. Over the past ten years ActewAGL has been restructured to make it more competitive and efficient and it is now in a strong position to defend its market share. The Commission agrees with ActewAGL's advice to the effect that the smaller end of the consumer spectrum is less desirable to new market entrants than larger customers who are already contestable. However, the Commission notes that ActewAGL is highly

¹⁴ *ibid*

competitive and gaining market share in other markets outside the ACT. This persuades the Commission to the view that while there is a risk of losses of dividend revenue, the risk is low. The relationship between market share and the dividend stream remains one of performance management that is outside the purview of the Inquiry, but an area where ActewAGL has demonstrated that it has some competence.

4.10 Will there be confusion because of customer churn?

Customer churn, or the degree to which customers switch between one supplier and another, has the potential for disrupting the market and causing costs to suppliers and consumers, as suppliers seek to minimise that risk. Having considered the first months of operation of FRC in Victoria and NSW, and the UK experience since deregulation in 1999, the Commission does not expect that there will be a high risk from churn. To date the rates of churn have been very low in both Victoria and NSW. There has been a steady increase in the number of transfers but the number remains less than 1%, that is about 12,800 customers in NSW in a total customer population of 2.8 million. The low level of churn has meant that there has been no pressure on prices to dampen market volatility. Despite the high rate of churn in the UK, there is little evidence that churn has been a significant source of cost or an inhibitor to the development of a competitive market.

That there is no instability evident in Victoria or NSW from churn itself does not mean that churn has no costs associated with it. The provision of IT systems and administrative processes between and within utility businesses have costs that may legitimately be recovered from consumers. To a large degree those costs have already begun to pass through to consumers as regulators have received applications to redress network and franchise prices for 2002-03. The Commission sees no reason to anticipate a greater risk of churn in a contestable market in the ACT than has been experienced in NSW or Victoria. The more problematic issue for the ACT in relation to the allocation of any FRC costs, whether from churn or any other cause, is the population over which the costs will be spread. In the ACT costs will effectively be larger because there is a relatively small population compared, for example, to NSW.

4.11 Deemed profiling vs full metering

The reference requested advice on whether the ACT should introduce FRC with full metering or deemed load profiling. In responding to this point the Commission draws attention to the assumptions and its comments made in the section of the report dealing with the modelling of the costs and benefits of FRC. The Commission has assumed, on the basis of all the arguments put to it in submissions and the experience of Victoria and NSW, that profiling is the only feasible option for FRC at this time.

Customers using less than 100MWh pa of electricity are not required to have interval meters, whereas contestable customers using more than 1000 MWh pa are. Interval meters allow the collection of consumption data for each connection point. The connection point is where the meter is located to measure electricity that passes from the distribution network to a customer's premises. That amount of electricity is the load being consumed by that consumer and the amount of electricity for which the customer is billed. Interval meters read the amount of electricity used in a 30-minute

period and then transmit that information to the distributor for billing. The information from all connection points is aggregated to provide an accurate time weighted estimate of the load. Interval metering requires not only a meter but communications equipment to transmit the data to the distributor. Profiling allows the older technology meters that do not read and communicate data for short periods to be retained for metering. Older meters accumulate data over a more extensive period with meter readings occurring monthly or quarterly in a regular cycle. Data collection is usually carried out manually. With profiling the distributor develops a usage profile for classes of consumers to forecast what load is required at any time of the day. Billing is based on the actual meter reading at each metering point.

Deemed profiling is a solution that is suited to smaller customers with regular patterns of consumption. It is also a simple, inexpensive and reliable process. Although full metering is more accurate, the additional cost of the interval meter and the associated communications equipment outweighs any reduced efficiency in small customers' metering. Although interval meters are available and have been installed in premises of contestable consumers their cost remains very high. Estimates of the current cost of interval meters range between \$100 and \$1000 per meter¹⁵, excluding the communications equipment cost. Until the cost of interval meters falls substantially the Commission would not advocate their mandatory deployment. Furthermore, although the cost of meter installation is not in itself high, the cost of installing new meters on a large scale would increase FRC costs significantly.

Deemed profiling on the other hand is generally supported by both utilities and regulators as a manageable and inexpensive way of metering that does not disadvantage consumers or suppliers and requires no significant additional cost. With few exceptions, franchise customers in the ACT currently connected to the network have accumulation meters and, therefore, can be profiled.

The Commission expects that eventually technology will be available to have a full metering solution that is able to continuously record and transmit data to the network operator. However, achieving full metering will require a phasing in of the new technology to lower costs to the network operator and customers, and to deal with the scale of the meter deployment task. The questions, when might full metering be introduced and how would its introduction be managed, are not ones for this review but may be the subject of a future advice from the Commission to Government.

4.12 Implementation issues

Administrative and compliance costs

The ESCC and ACTCOSS expressed concern over the additional administrative costs new entrants to the market might face if having to adjust their systems and practices to ACT regulatory requirements. The ESCC was concerned that, at least initially, suppliers' existing systems and practices might be in contravention of the Territory's codes of practice and that this would have resource implications for them (through increased complaints) and cost implications for the suppliers themselves.

¹⁵ Estimates vary depending on the economies of scale of the metering order and or implementation policy.

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The Commission acknowledges that there may be minor adjustment problems and costs associated with FRC. Based on its experience with the implementation of the new utilities regulatory regime though, the Commission believes that the adjustment costs will be minimal and manageable. The ACT has sought to align its regulatory requirements with those of Victoria and NSW as much as possible. The Commission is therefore confident that there will not be any major discrepancies between the ACT's regulatory requirements and those of other jurisdictions. However, if a supplier cannot achieve compliance with a particular requirement in the short term, their operating licence can be varied under the Utilities Act so that they are given a temporary exemption from having to comply with that requirement.

Public information is essential

In considering how FRC might be introduced most effectively the Commission has given attention to the role of the public information processes in both Victoria and NSW. In both those states Government provided substantial financial resources to ensuring that all consumers were informed about the opening and operation of the contestable market, including the responsibilities and obligations of both suppliers and consumers.

Reducing the risk and cost of poor choices among the product offerings that are likely to be available is a significant way of ensuring the most effective implementation. The Commission is not suggesting that the Government provide financial resources for the public information process at an equivalent level to that provided in Victoria or NSW, but sufficient resources to ensure that all consumer households are contacted and that information is provided in or through a range of media. Suppliers clearly have a role in this process but the Commission considers that informing the public should not be left solely to suppliers.

Timing

ActewAGL has sought the Commission's consideration of timing of FRC in its advice to the Government. The systems for ensuring transfers, settlements and billing for consumers will take some time to complete. The Commission is aware that progress has been made on many aspects of those systems but that some more time may be needed to ensure that the systems are fully operational to support the operation of a competitive market. The Commission has some sympathy with suppliers and the network businesses not investing in preparation for FRC if it is not to happen. At this stage the Commission understands that the systems could be operational by October 2002.

The Government too, will need to ensure that the necessary regulatory and social policy framework is in place and that consumers have been given sufficient information prior to FRC, and continue to have access to information, to be able to participate in the new competitive market.

Any decision to implement FRC should therefore allow enough time for systems to be developed and for the public to be informed about FRC. The Commission considers six months would be sufficient. Thus the commencement date for FRC in the ACT should be no later than 1 January 2003.

5. RECENT EXPERIENCE IN OTHER JURISDICTIONS

The Commission has considered the progress of FRC in Victoria and NSW since January 2002 and the experiences of the UK and California. There are some points to note in relation to these comparisons. Firstly, it is too soon in Victoria and NSW for reliable long term trends to emerge. Secondly, the experiences in UK and California, in particular, have only limited application to the ACT. Although California has FRC its regulatory arrangements are so different from our own that the lessons that might be drawn from it are distorted by other policy matters that make it difficult to see what the benefits of contestability have actually been.

Whilst it is difficult to predict what might happen in the ACT based on the FRC experiences of these other jurisdictions, there are observations to be made. The Commission particularly notes that:

- in the UK, NSW and Victoria there were initially very low rates of transfers from the local supplier (the former franchise supplier) to other suppliers in the market. This means that the market remained stable and predictable and retail prices did not have to rise steeply to address increasing levels of uncertainty and risk;
- prices changed to a marginal extent and disadvantaged smaller rather than larger customers, although the price adjustments were considered efficient in that they reflected market cost allocations and risks more closely than the previously regulated market was able to do;
- other changes in the market were occurring at the same time as FRC (though not related to FRC) that masked the FRC effect, but the general view is that FRC had an insignificant effect on the market as a whole; and
- benefits relating to choice and variety of product offerings made quality differences to consumers that were unavailable in the previously regulated regimes.

The Commission's inter-jurisdictional comparisons are discussed at greater length in Attachments 2 – 5. However, the general conclusion the Commission draws from those examples is that FRC has not been significantly costly in the places that it has been introduced. It has not contributed to instability in the market nor introduced any great uncertainty. On the contrary FRC, has been introduced in an orderly way with little immediate impact on consumers or industry. The expectation is that immature markets will exhibit a high degree of volatility with high levels of supplier entry and exit, and customer churn. Indeed, high levels of market entry and exit in a maturing market is a healthy sign of competition finding an appropriate balance between supply and demand. The down side is that such volatility is costly to consumers in terms of reliability, continuity and cost of supply. Yet this has not been the case in either NSW or Victoria. Although the contestable markets are not yet mature in those states there is little sign of market volatility nor any indication that it will become more volatile. Nor is there evidence of substantial erosion of consumers' ability to meet the additional costs of FRC where they occur.

The attachments to this report outline the experiences in Victoria, NSW, UK and California at greater length. Table 5.1 summarises some of the main points.

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Table 5.1: Overview of FRC experience in Victoria, New South Wales, UK and California

	Victoria	NSW	UK	California
FRC effective	13 January 2002	1 January 2002	May 1999	1998
Metering requirements (>100MWh pa)	Interval meters and associated communications equipment	Interval meters and associated communications equipment	Interval meters and associated communications equipment	N/A
Metering requirements (<100MWh pa)	As above or accumulation meters and profiling	As above accumulation meters and profiling	Accumulation meters and profiling	
Cost of interval meters	\$700-\$1000	\$700-\$1000	Est \$A615 plus \$A920 pa	
Price impact	+4% regulated rise held for 12 months	No change in franchise prices, subject to a regulated price arrangement	- 2% over two years	Capped prices delivering price reductions not reflecting market costs
Switching rates (churn)	<1.0% in first five months	<1.0% in first five months	38%	Nil change, no market incentives
Net benefits to <160 MWh pa customers	Net cost to small customers. Large customers price benefit	Little change for customers	Net benefits to customers	Market failed.

6. THE OBLIGATIONS IN THE NATIONAL COMPETITION POLICY AGREEMENTS

6.1 The National Competition Policy (NCP) Agreements

There are three agreements that form the NCP:

- the Conduct Code Agreement;
- the Competition Principles Agreement; and
- the Agreement to Implement the National Competition Policy and Related Reforms.

The Conduct Code Agreement and the Competition Principles Agreement do not have a direct bearing on the achievement of free and open markets in energy. Those pre-existing COAG reform commitments were built into the third Agreement on the Implementation of the Competition and Related COAG reforms. The Implementation Agreement combined the previous COAG reform agendas for electricity, gas, water and road transport industries with the conditions for financial transfers from the Commonwealth to the States and the Territories and the reform timetable.

The inclusion of the COAG reforms in the Implementation Agreement was a convenient means of getting progress on difficult reforms by providing financial incentives as part of the NCP package. The combination also gave COAG an instrument for independently ensuring satisfactory and timely progress with the achievement of the commitments. The National Competition Council (NCC), established to oversight the implementation of the National Competition Policy, also assumed responsibility for ensuring that the parties to the agreements continued to deliver satisfactory progress on the whole reform package.

One of the reforms agreed to was the establishment of a competitive national electricity market. The agreements included obligations to establish a national market with appropriate regulatory infrastructure. The regulatory framework included a new national electricity law, law developed in South Australia and then mirror legislation adopted in other jurisdictions, with a subsidiary regulatory code, the National Electricity Code. The COAG obligations included establishing the National Electricity Market Code Authority (NECA) to regulate the Code as it related to generation and reticulation of electricity throughout the market network. NECA assesses changes to the Code and provides overall coordination of the regulatory framework. The management of the market was to be undertaken by the National Electricity Market Management Company (NEMMCO). The Code defines the role of the local regulators, particularly in establishing prices for regulated distribution and retail activities.

The National Market was formally established in 1997 with the opening of the interim National Electricity Market (NEM1). The original market was made up of New South Wales, Victoria and the ACT. Queensland and South Australia entered the market as full participants with the opening of the NEM proper in December 1998.

6.2 Has the ACT met its obligations in the NCP Agreements?

To date the NCC's annual assessments of performance against the obligations in the NCP Agreements indicate that the ACT has maintained satisfactory progress on all its reform obligations including those in relation to electricity. The ACT is a foundation member of the NEM and has maintained a contestability timetable that is comparable to both NSW and Victoria, except for the last tranche of small customers. NSW and Victoria made the last tranche of customers contestable from 1 January 2002 and 13 January 2002, respectively. The ACT has not made that final step pending consideration of the Commission's advice to Government.

The Agreements make provision for the maintenance of restrictions on competition where there is a net public benefit from doing so. The ACT has made the decision on FRC dependent upon the outcome of this assessment of the costs and benefits of FRC for the less than 100 MWh pa customers. The community is understandably concerned that any decision about FRC for this group of customers be subject to a specific assessment because all residential customers, including the elderly, pensioners and the economically disadvantaged lie in this group. Small businesses generally also fall in this group and may be as economically vulnerable as small residential customers in a contestable market.

6.3 Would a decision not to open the market to further competition result in loss of competition payments?

The competition policy payments made by the Commonwealth to the States and Territories represent a share of the national economic benefits derived from implementing the microeconomic reforms recommended by the Hilmer Committee and the COAG related reforms. Provided that all the parties implemented and sustained those reforms they would be entitled to the share of the additional revenue collected by the Commonwealth. The additional revenue available to be shared as direct competition payments was estimated, at the time the agreements were signed in 1995, to be approximately \$12 billion in 1996 dollars.

Failure to implement reform would obviously damage the process and its capacity to deliver the economic benefits to be shared by the participants. Any restrictions on competition that were maintained after the start of the reform process would reduce the level of the assessed economic benefits. Only where it could be demonstrated that there was a net benefit to maintaining a restriction would an exception be made to the principle that competition produced better outcomes than restricted markets. This principle is demonstrated in clause 5 of the Competition Principles Agreement referring to reviews of legislation. The principle is also the basis for the commitment to open competitive markets in electricity and gas.

It is noteworthy that Queensland has carried out a cost-benefit analysis of FRC from which it concluded that contestability should not be extended any further than to the largest customers at the present time. There does not appear to have been a significant reduction to the competition payments to Queensland. Previously the NCC has recommended reductions in payments to NSW (domestic grain marketing arrangements) and to Queensland (water). In those instances the annual available payment was not withheld but only partially reduced. Given that the anti-competitive

behaviour of those two States was of a significantly more serious nature than possibly not extending FRC to small customers in the ACT, a less onerous reduction could be expected.

If the ACT did not introduce FRC, would that mean a reduction in the competition policy payments from the Commonwealth? The Commission is not in a position to foreshadow what the NCC might recommend to the Commonwealth Treasurer about any reduction of competition payments. However, the Commission can say that:

- the ACT has so far met its obligations in full;
- there is no net benefit to introducing FRC for customers less than 100 MWh pa;
- that the balance of the reform program is being or has been implemented; and
- there is an ongoing commitment to the reform process and maintaining the reforms already delivered.

On the other hand, the ACT has already agreed to FRC under the NCP Agreements and so, unless an appreciable net benefit can be demonstrated for maintaining market restrictions, must proceed with FRC. In the Commission's view, a net benefit cannot be demonstrated.

ATTACHMENT 1: COST AND BENEFIT ANALYSIS

What are the costs and benefits of FRC

In arriving at its final advice to the Minister the Commission has considered a range of issues, some of which were raised in the Issues Paper and other matters raised in submissions to the Inquiry. A central consideration for the Commission is to determine whether FRC will provide a net benefit to consumers using less than 100 MWh pa. This was a principle term of the reference and is an essential consideration for the Government in making its decision about FRC.

Examining the net benefits of FRC that have been achieved by the ACT's contestable customers is not a reliable indicator of the potential benefits (or costs) to those smaller users who remain outside the competitive market. The nature and market competence of large contestable customers are very different to those of smaller users.

The Commission has found that in the absence of actual information to measure the effects of competition on small customers it will need to rely on modelling of expected outcomes. In developing its model the Commission notes that:

- costs and benefits will be both quantifiable and non-quantifiable;
- the majority of costs relating to FRC will be incurred in the short term while the benefits will be achieved in the long-term; and
- benefits will be diffuse and difficult to quantify.

The report also assesses whether the non-quantifiable costs and benefits of FRC are likely to either negate or magnify the quantifiable net benefits of FRC.

Quantitative costs and benefits

The Commission has modelled the quantifiable costs of supplying electricity in the competitive electricity market using the following core components:

- efficient operating costs and margins of electricity retail;
- the costs of purchasing energy; and
- regulated network tariffs.

A summation of the value estimated for each of these components is provided in Table A1.1. The method by which the cost of each of these core components was determined is discussed below.

(i) Efficient operating costs and margins of electricity retail

The following estimates of the operating costs of efficient electricity retail functions have been provided in recent regulatory decisions:

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- \$40 to \$60 per customer – the estimated cost used by the Independent Pricing and Regulatory Tribunal (IPART), NSW, in its Final Report into Regulated Retail Prices for Electricity to 2004, December 2000; and
- \$50 to \$80 per customer – the estimated cost used by the Office of the Regulator-General (ORG), Victoria, in its Special Investigation Electricity Supplier's Proposed Price Increases, Final Report, December 2001.

The Commission has used the upper limit of the ORG's cost estimate (ie \$80 per customer) as the benchmark for retail operating costs per customer. The cost range used by the ORG estimates the costs to suppliers of providing for customer transfers and for operating a system of deemed load profiles are between \$5 and \$10 per customer. From the information that the Commission has been able to assemble, this upper estimate of \$80 per customer appears to be reasonable.

The publicly available information on retail margins in contestable electricity retail markets seems to indicate that reasonable profit margins on retail sales range between 1.4% and 5%. This range of margins is contained in the following key regulatory decisions:

- 1.4%, as determined by the Commission for ActewAGL in May 1999;
- 1.5% to 2.5%, as determined by IPART in its Final Report into Regulated Retail Prices for Electricity to 2004, December 2000; and
- 2.5% to 5%, as determined by the ORG in its Special Investigation Electricity Supplier's Proposed Price Increases, Final Report, December 2001.

For the purposes of modelling a likely outcome, the Commission has adopted 3% on sales (ie approximately \$30 per customer) as the benchmark value for the retail margin. The Commission does not have sufficient information at this stage to conclude whether this mid-point benchmark is more representative of ActewAGL's actual retail margin than the amount previously determined in May 1999. However, the Commission believes that it is representative of the retail margin that can be expected.

(ii) Costs of Purchasing Energy

The Commission has based the costs of purchasing energy on the following elements:

- peak and off-peak costs of purchasing energy based on current estimates derived from various sources of the respective peak and off-peak periods;
- ACT network losses;
- NEMMCO fees and ancillary service payments;
- allowances for renewable energy and other risk factors¹⁶; and
- hedge mismatch risks.

Hedge mismatch risks may arise where ActewAGL agrees forward contracts for purchasing electricity for its ACT customer base without knowing the size and composition of its future customer base due to the potential uncertain effects of FRC.

¹⁶ These factors are set out in page 20 of the ORG Special Investigation. Electricity Retailer's Proposed Price Increases, Final Report, December 2001.

For example, where ActewAGL's long-term forward contracts do not match the actual demand of its customer base it would need to purchase electricity on the spot market or via shorter-term contracts in order to ensure that electricity supply to its customers matches demand. As a result, ActewAGL's electricity purchase costs would increase.

As a measure of the hedge mismatch costs, it is proposed to utilise the allowance calculated by the ORG for application in the Victorian market, in the form of a 4% hedge mismatch risk allowance applied to the cost of energy.¹⁷ In the absence of ACT-specific information in relation to this issue, the percentage allowance proposed by the ORG is considered to be an appropriate surrogate for any actual hedge mismatch risk in the ACT.

(iii) Regulated network tariffs

The Commission considers that ActewAGL's electricity network tariffs, which are approved by the Commission in accordance with the principles and procedures in the National Electricity Code, represent an appropriate efficient cost of network use of system services.

The Commission has also included an allowance for FRC distribution costs. This allowance has been based on distribution cost calculations made by the ORG in its Electricity Price Determination 2001-05¹⁸ and has been calculated by the Commission on the following basis:

- once-only capital costs as determined by the ORG have been converted into an annual capital charge using a pre-tax nominal rate of return of 10% and a recovery period of 5 years; and
- the annual capital charge, plus the annual operating costs determined by the ORG, have been converted into a cost per customer by dividing the (Victorian) total annual cost amount by the number of Victorian customers.

It should be noted that the values of the factors used by the Commission to convert the once-only capital costs into annual charges (ie the 10% rate of return and 5 year recovery period) represent benchmark values only for the purposes of the Commission's current analysis. They should not be taken as definitive values to be applied to determine costs in the future.

All of the FRC costs determined by the Commission assume that the FRC model adopted is based on standard metering and deemed load profiling. In addition, the following cost allocation principles have been applied:

- FRC costs are assumed to be recovered from all contestable customers as a uniform charge, even though not all customers will switch suppliers and so cause FRC costs to be incurred; and

¹⁷ page 19. ORG Special Investigation. Electricity Retailer's Proposed Price Increases, Final Report, December 2001.

¹⁸ page 71, Volume I Statement of Purpose and Reasons. ORG Electricity Distribution Price Determination 2001-05.

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- general retail operating costs and margins are similarly assumed to be recovered from all customers as a uniform charge.

The allocation of FRC and retail costs on a per customer basis will have different implications for customers according to their levels of usage. For customers with low value bills, these fixed costs will form a higher percentage of their bills than for customers with high value bills. The effect of allocating these amounts on a fixed basis to customers at different levels of usage is shown in Table A1.1 below. This approach to allocating fixed costs to customers is an important factor behind the effect of FRC established in the following section of this report, namely that residential and low usage customers are likely to experience relatively higher price increases at FRC, compared with business and high usage customers.

Table A1.1: FRC Cost Components

Customer Class	Residential Customer		Business Customer	
KWh pa	7,500		20,000	
Costs, ex GST	\$ pa	% of Total Cost	\$ pa	% of Total Cost
Retail operating costs <i>including retail FRC costs</i>	80	9%	80	3%
Retail margin	30	3%	30	1%
Energy <i>including NEM fee, ancillary services etc</i>	323	36%	860	33%
Network losses	18	2%	47	2%
Network use of system cost	345	38%	1,333	51%
Distribution FRC costs	20	2%	20	1%
GST	82	9%	237	9%
Total Cost, inc GST	898	100%	2,607	100%

The usage levels in Table A1.1 are the approximate average usage levels for respective residential customers and business customers consuming less than 100MWh pa.

It is emphasised that the cost amounts shown in Table A1.1 are broad estimates only based on the assumptions above.

Retail price effects

This section outlines the Commission's evaluation of the likely price changes at FRC for customers moving off the franchise retail tariffs to contestable market tariffs. The likely contestable market tariffs are based on the benchmark costs of supplying electricity in the competitive electricity market as established in the previous section.

Where prices in the contestable market are likely to be greater than the current franchise retail tariffs, there is assumed to be a net cost. Conversely, where prices are likely to reduce at FRC, there is a net benefit.

The tables below show the estimated effect of FRC on retail prices for particular retail tariff classes for customers consuming electricity at the following usage levels:

- a low usage customer consuming 3,000KWh pa;
- a customer consuming the average amount for a residential customer of 7,500KWh pa; and
- a customer consuming the average amount for a business customer of 20,000KWh pa.

Table A1.2: Impact of FRC: Peak Usage Customers

KWh pa	3,000	7,500	20,000
% off-peak	0%	0%	0%
Franchise Retail Tariff Class	% Change in Price at FRC		
Home Plan	14.7%	7.5%	3.4%
Home Saver Plan	13.2%	8.5%	3.4%
Home Saver Plus Plan	13.4%	10.4%	7.2%
Business Plan	1.4%	-3.4%	-6.1%
Community Services Discount	1.1%	-3.8%	-6.6%

Table A1.2 above shows the likely impact of FRC on customers that consume electricity only in the peak period. It shows that for these customers, residential and low usage customers would be likely to experience price increases relative to business and high usage customers.

The Commission notes that business customers could generally be expected to experience lesser increases than residential customers given that business customers currently pay more than residential customers for similar levels of peak usage under the franchise retail tariffs. For example, the Business Plan (Block 1) usage rate is 13.09c/KWh (inc. GST) whereas the Home Plan rate is 9.46/KWh (including GST¹⁹). This price differential is greater than the difference in the costs of supplying the respective customer classes. That means that when business customers move off the Business Plan franchise retail tariff to contestable market tariffs (which reflect the costs of supply), they are likely to experience price reductions.

The difference in the impact of FRC across different usage levels largely reflects the manner in which fixed costs are allocated to customers. This is because FRC costs and retail costs, in dollar terms, are generally the same for different customer classes and customers at different usage levels. Such fixed costs will therefore constitute a different proportion of a customer's bill, depending on the size of the bill. For example:

- for a low usage residential customer consuming 3,000KWh pa, fixed FRC costs and retail costs would account for around 30% of their bill of approximately \$445 pa including GST; whereas
- for a high usage residential customer consuming 20,000KWh pa, fixed FRC costs and retail costs would account for about 6% of their bill of approximately \$2,600 pa including GST.

¹⁹ Pre 1 July 2002 rates

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Where such fixed costs per customer are passed through to customers in the competitive market, the ability of low usage customers to realise savings at FRC on the basis of competition on energy costs and possibly also on the retail margin, will be limited relative to high usage customers.

Although the effect of allocating FRC costs and retail costs on a fixed per customer basis has a material effect on the Commission's estimates of the likely price changes at FRC, this broadly reflects the way in which these costs are incurred and, in an efficient competitive retail electricity market, suppliers could be expected to allocate these costs to customers on an equal basis.

Table A1.3 below shows the estimated percentage price changes at FRC across different usage levels and assuming 50% off-peak usage.

Table A1.3: Impact of FRC: Customers with 50% Off-Peak

KWh pa	3,000	7,500	20,000
% off-peak	50%	50%	50%
Franchise Retail Tariff Class	% Change in Price at FRC		
Home Plan + Off-Peak Saver Plan	19.7%	12.4%	8.0%
Home Plan + Off-Peak 1 / 2	23.1%	16.5%	12.5%
Business Plan	1.4%	-3.5%	-6.1%
Community Services Discount	1.1%	-3.8%	-6.6%

As in the case of Table A1.2, which shows the effects of FRC on peak use customers only, Table A1.3 above shows that residential and low usage customers would be likely to experience price increases relative to business and high usage customers. Here too the fixed cost allocation will cause higher price increases to low usage customers relative to high usage customers. These price increases are higher in percentage terms than those shown in Table A1.2 which reflects the fixed allocation of FRC costs and the lower absolute price paid by customers on the off-peak rates.

It should be noted that in assessing the effects of off-peak usage, the Commission has assumed that some customers have both a general usage meter (eg to measure usage under the Home Plan retail tariff) and an off-peak meter (eg to measure usage under the Off-Peak Saver Plan retail tariff). Further, the Commission has assumed that even customers who only have a general usage meter are able to benefit from off-peak pricing in the competitive market, as the application of the deemed load profile will enable their peak usage and off-peak usage to be determined. This, in turn, would enable those customers to be charged separately for their peak and off-peak energy consumption at rates reflecting wholesale market costs in relation to the respective peak and off-peak periods.

Overall, a customer's mix of peak and off-peak usage was not found to have an appreciable effect on the estimated pricing outcomes at FRC.

Concluding comment on assessment of quantifiable costs and benefits

On the basis of its analysis, the Commission estimates that the average effect of FRC on prices for residential customers is an increase in the order of 7% to 9%. This increase in prices translates into an increase in the charges estimated to be paid by

residential customers of approximately \$9 million per annum compared to charges under the franchise retail tariffs on a per customer basis, thus represents an increase of the order of \$6 per month.

The estimated price impacts for residential customers are higher than those presented in the Commission's Draft Report. This reflects further review of likely energy costs and minimum adjustments to other estimates. Advice from ActewAGL suggested price increases of the order of 13%-18%. However, the Commission has satisfied itself that these estimated price effects have included some higher charges in certain areas which the Commission believes will not occur. Nevertheless, an increase of an average \$6 per residential customer per month still represents a not insignificant increase in costs as part of the 'price' for the transition from a non contestable to a contestable market.

In the case of business customers, FRC is estimated to result in an average price reduction of around 5%. This equates to a reduction in the charges estimated to be paid by those customers of approximately \$2 million per annum or \$14 per customer per month.

In part these savings represent the final removal of any cross subsidisation between large business consumers and residential customers. In a contestable market, it will not be possible for such a cross subsidy to remain. To the extent that previous decisions of the Commission have retained this cross subsidy, the introduction of full contestability will see the full unwinding of these arrangements. Thus, it is to be expected that business customers will benefit relative to residential customers as it has been the group that has cross subsidised residential customers in previous years.

These results are contingent on the assumptions that the Commission has made in relation to how FRC costs, and retail costs generally, are allocated and passed-through to customers in the contestable environment. In addition, the results are highly sensitive to the actual cost levels that have been used. Thus, results will differ where actual costs differ from the assumptions and benchmarks used in relation to peak and off-peak wholesale energy costs, retail costs and margins and FRC costs.

Further, the outcomes would be significantly different if deemed load profiling were not adopted. In that case, given the significantly higher cost of full metering (the alternative form of metering under FRC), the quantifiable costs of FRC would likely significantly exceed the benefits for the less than 100MWh pa market.

After weighing up the quantifiable costs and benefits, it appears that the vast majority of customers that consume less than 100MWh pa are unlikely to experience a net financial benefit from FRC. There is however likely to be a quantifiable net financial benefit to business and high usage customers, relative to residential and low usage customers.

Non-quantitative costs and benefits

Costs

In this section the Commission assesses whether non-quantifiable factors (largely in the form of non-quantifiable benefits) are likely to affect the conclusion arrived at in relation to the balance between the quantifiable costs and benefits.

Below is the Commission's assessment of a range of costs that are commonly associated with FRC, but which are generally not quantifiable on the basis of the information that the Commission has available.

Credit risk

The current practice for dealing with defaulting customers is to disconnect supply. Under FRC a defaulting customer may transfer to another supplier, leaving its initial supplier without a cost-effective means of enforcing the debt. This is an FRC related cost that would not occur if FRC were not introduced. However, it is not possible to quantify the credit risk costs at this stage.²⁰

Marketing costs

There may be additional marketing costs as a result of FRC. For example, existing ActewAGL customers would need to be signed to bilateral contracts, whereas now they are supplied under unilaterally applied tariffs, terms and conditions. While such costs are not quantifiable at this stage, the Commission notes that it was the ORG's view that costs of this nature would be minor and that not all of such costs would pass through in a competitive market.²¹

Connection/Disconnection policy

In its submission, ActewAGL advises that its current policy is to leave a premises connected to the network for two weeks after it has been vacated. Under this policy, a reconnection effected within two weeks of the previous tenant vacating the premises would not require a service visit. At FRC, the supplier would sever its responsibility for the site so that reconnection would, in all cases, involve a service visit.

As more service visits would need to be made than is currently the case, the additional cost of service visits for premises reconnected within two weeks could be considered a cost of FRC. However, because ActewAGL's policy is discretionary (ie the parameters of the policy are not determined by the regulatory framework applying to ActewAGL), any allowance for increased costs from FRC should not compensate ActewAGL for FRC effects relative to its current, discretionary policy.

²⁰ It is noted that the retail cost estimate developed by the ORG provides an allowance for this risk. Refer page 30, ORG Special Investigation. Electricity Retailer's Proposed Price Increases, Final Report, December 2001.

²¹ pages 27 and 30, ORG Special Investigation. Electricity Retailer's Proposed Price Increases, Final Report, December 2001.

Regulatory costs

The ACT's regulatory framework is likely to require a range of amendments in conjunction with the introduction of FRC. Amendments may be required in relation to the following key areas:

- amendment to Supplier of Last Resort arrangements;
- development of a Customer Transfer Code;
- additional requirements on conduct (eg establishment of a marketing code of conduct); and
- revisions to legislation (eg to the Utilities Act, which largely reflects franchise customer arrangements).

A number of the above areas of work may be considered to be FRC-related (particularly amendment to the Supplier of Last Resort arrangements and the requirement for a Customer Transfer Code). However it is difficult to determine the costs of developing the regulatory framework and to separate those costs into general framework development costs and FRC costs. Those costs are likely to represent a small amount and are currently included in the cost of regulation met from utility licence fees.

As suggested above, costs commonly associated with FRC that are not able to be quantified on the basis of existing information are either considered not to be FRC-related or are unlikely to have a material effect that would alter the conclusion arrived at above. That is to say, based on an assessment of quantifiable costs and benefits, there appears to be no clear overall net cost or net benefit from implementing FRC in the ACT.

Benefits

As noted in the introduction to this chapter, in assessing the costs and benefits of FRC, the costs can be more readily determined than the benefits. This is because the benefits of FRC mainly relate to the future effects of competition that will in turn depend on the responses of electricity market participants to the new competitive environment.

The responses of market participants, primarily electricity suppliers, to the new competitive environment may include the lowering of costs and prices, improving service quality and developing innovative products and services in order to attain and/or retain market share. Aside from the estimated pricing effects of FRC as discussed above, these benefits are not generally quantifiable. For example competitive benefits are likely to be realised in the following areas:

- service quality improvements resulting from the process of competition. That is, in addition to competition in pricing offers (accompanied by cost reductions), suppliers are also likely to offer competing types of services; and
- product and service innovation, in particular, in the bundling of diverse services (eg a service combination involving electricity, natural gas and telecommunications) where such innovations are currently precluded by the regulated franchise tariff arrangements.

In addition to such potential direct benefits from competition, there is a range of potential general economic and financial benefits from FRC that cannot be quantified with a reasonable degree of confidence. These benefits include:

- not forfeiting NCP payments from the Commonwealth as a result of proceeding with FRC. The potential benefit from full NCP payments needs to be weighed against the cost to the Government arising from a potential reduction in its dividend payment from ACTEW due to a FRC-related reduction in the retail market share of ActewAGL (the issue of NCP payments is discussed in chapter 6); and
- alignment with the competitive natural gas market in ACT and with competitive electricity markets in Victoria and NSW. Cost savings could be derived from ActewAGL being able to recover common systems costs, and apply uniform customer procedures, across a broader base of gas and electricity customers;

There are also the benefits of greater customer choice and of having competitive markets. Market information regarding changing consumer preferences and changing costs of production is sent most efficiently to suppliers and consumers in a competitive market by price signals. In this context, it is the view of the Commission that, in the long term, competitive markets represent a more effective mechanism for achieving efficient outcomes than regulated markets.

Concluding comment on assessment of costs and benefits

The Commission has found that there are likely to be marginal net benefits to some large consumers and marginal costs are expected to be passed on to a large number of smaller consumers. The Commission estimates that the average additional cost will be in the order of \$6 per month for residential customers and the potential average saving to business customers will be in the order of \$12 per month.

The Commission considers that there are general long-term benefits from introducing FRC in the ACT including increased customer choice, development of a truly competitive electricity market, and no curtailment or reduction in the Commonwealth's NCP payments to the Territory. Based on these potential benefits, which at this stage are not quantifiable, the Commission considers that the implementation of FRC in the ACT will have a positive net benefit. The form of FRC that is introduced would however need to address concerns that small consumers may be disadvantaged.

ATTACHMENT 2: RECENT FRC EXPERIENCE IN VICTORIA

FRC timetable

The FRC timetable set by the Electricity Industry (Non-franchise Customers) Regulation 1994 provided for a staged introduction of retail competition, with each phase based on customer size class as follows.

Table A2.1: Victorian FRC timetable

Date	Threshold condition
December 1994	Customers with loads in excess of 5MW
July 1995	Customers with loads in excess of 1MW
July 1996	Customers with loads in excess of 750MWh pa
July 1998	Customers with loads in excess of 160MWh pa
December 2000	Remaining customers

The date for FRC coincided with the commitment by Victoria to introduce competition reforms in line with the NCP.

At the time the Victorian Government reformed and privatised the state's electricity supply industry it also put in place regulation governing non-franchise customers. Under these arrangements, the elements of the former State Electricity Commission of Victoria were disaggregated into separate companies, namely:

- generation companies;
- a company responsible for operating the transmission system and for overseeing the operation of the wholesale energy market;
- a transmission system asset owner; and
- five combined distribution retail companies – each of which was allocated a specific geographic area.

Under the competition reforms, the provision of transmission and distribution services (ie the wires businesses) was made subject to economic regulation on the basis that transmission and distribution are considered to constitute natural monopolies. The service of retail supply, although notionally a competitive service, was made a regulated service in respect of supplies to customers not subject to retail competition. That is, under the arrangements put in place, regulated retail prices applied to a customer so long as the customer was not contestable. On becoming eligible for competitive supply (ie contestable) in accordance with the timetable above, the regulated retail prices were no longer available to the customer.

Thus, the five suppliers supplying non-contestable customers could only do so at the regulated tariffs. Their risks of purchasing services to supply those customers were managed by different mechanisms:

- transmission and distribution service prices were subject to regulatory control based on the application of CPI-related average revenue formulas under the Victorian Electricity Supply Industry Tariff Order (the Tariff Order); and
- the cost of purchasing energy, which notionally is determined on a half-hourly basis under competitive conditions through the wholesale power pool, was

hedged through Government-developed contracts between the suppliers and generators.

The key aspect of these contractual arrangements was a two-way hedge that required the suppliers to pay the generators the difference between the market price and the hedge strike price when the market price was below the strike price and for generators to pay suppliers the difference when the market price was above the strike price. Thus the effective cost of energy was determined directly by the hedge contract strike price.

The contracts protected suppliers from price and quantity risks in purchasing energy to sell to non-contestable customers (given that sales to such customers could only be made at price controlled retail tariffs).

The hedge contract coverage was designed to be phased out in step with the introduction of retail contestability. That is, once a particular customer class became contestable, the supplier would no longer be required to sell to those customers at regulated (constrained) retail tariffs and the suppliers' risks of purchasing energy could be passed on to those customers. Competitive forces in the wholesale power pool, combined with competition between suppliers for contestable customers, was considered to provide an appropriate safeguard for those customers.

Due in large part to difficulties in determining the appropriate metering and metrology solution for the last tranches of contestable customers, FRC was delayed from 1 January 2001.

In Victoria the delay was effected through Order in Council made by the Governor in Council. The Order in Council provided a transitional measure to allow 40-160MWh pa customers to switch suppliers provided such customers had interval meters installed. It was intended in the longer term, however, that customers consuming less than 160MWh pa would be able to switch on the basis of a deemed load profile. It was envisaged that FRC would be achieved at 1 January 2002.

By subsequent Order in Council, FRC was determined to commence from 13 January 2002.

Form of FRC

The form of FRC in place at 13 January 2002 provided for customers of different size classes to meet different criteria in order to be able to take supply from a supplier that was not their host supplier.

The switching criteria are as follows:

- customers consuming more than 160MWh pa are required to have full metering; and
- customers consuming less than 160MWh pa are subject to deemed load profiling.

FRC effects

(i) Prices

At the commencement of FRC in Victoria on 13 January 2002, prices for customers using less than 160MWh pa increased on average by approximately 9%. Measures put in place by the Government will result in the effective average increase being in the order of 4%.

The price effect in this case, however, cannot be readily characterised as an outcome of FRC. Rather, this effect has arisen from a combination of factors, which are discussed below in the context of the structural and historical factors that have led to the need for the recent retail price increases.

Although the regulated retail price path in the Tariff Order ceased to apply from 31 December 2000 (the Government-established hedge contracts were completely phased out on that date) the Government put in place arrangements in the *Electricity Industry Act 2000* which:

- required the franchise suppliers to put in place ‘standing offer’ tariffs for all less than 160MWh pa customers that did not elect to switch suppliers; and
- provided the Minister for Energy and Resources with powers to give effect to FRC, including powers in relation to regulation of standing offer tariffs.

Customers that switch between suppliers are considered to have taken up a supplier’s ‘market offer’. Market offer tariffs are not potentially the subject of Ministerial controls that may be applied in respect of standing offer tariffs.

Under the above powers, the Minister invited the suppliers to publish in the Government Gazette their proposed standing offer tariffs to apply post-FRC for the 2002 calendar year.

The suppliers’ gazettal of standing offer tariffs made in October 2001 (for application from 1 January 2002) embodied an average price increase of 18% over the tariffs applying in 2001. The average percentage increase embodied in the tariffs proposed by each supplier are shown below:

Table A2.2: Average increase proposed in 2001 tariffs in Victoria

Supplier	Citipower	TXU	Origin	AGL	Pulse	Average
Proposed increase on 2001 tariffs	16%	19%	21%	15%	17%	18%

On being informed of the gazetted tariff variations, the Minister for Energy and Resources referred the gazettal to the ORG to investigate and report on the suppliers’ proposed tariff variations and in doing so to assess the suppliers’ costs of supply against relevant cost benchmarks.

Based on the findings of the ORG’s investigation, the Government:

- determined revised permitted average increases for each supplier;
- sought revised proposals from the suppliers; and

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- requested the ORG to assess the revised proposals for conformance with the Government's permitted average increases, as specified in table A2.3.

Table A2.3: Average permitted increases in 2001 tariffs in Victoria

Supplier	Citipower	TXU	Origin	AGL	Pulse	Average
Proposed increase on 2001 tariffs	2.5%	15.5%	13.5%	4.7%	4.0%	9%

The ORG approved each supplier's revised proposals as conforming with the permitted average tariff variations.

The tariffs became effective from 13 January 2002 in respect of standing offer customers. The Government indicated that it anticipated that the gazetted tariffs would apply for 12 months.

Separately, for the 12 month period commencing from 1 April 2002, the Government has made available Special Power Payments (SPPs) to customers in the rural distribution areas (ie TXU's and Origin's former retail franchise areas). The net effect of the permitted retail price variations and the SPPs is that the average increases to standing offer tariffs in the TXU and Origin areas are 4.4% and 4% respectively (in place of the respective approved average variations for those areas of 15.5% and 13.5%) for a State-wide average effect across customers using less than 160MWh pa of around 4%.

The key driver of the above increases is that suppliers' costs of purchasing energy have risen to reflect increases in wholesale market prices, in particular, to levels above the forecast market prices used in determining the hedge contract strike price (which, in turn, had been reflected in the previous regulated retail prices).

In respect of market offer customers, that is those customers using less than 160MWh pa that have switched supplier, there is no publicly available information on the prices/average price effects faced by those customers.

(ii) Customer switching

Information available on the extent of switching of those customers using less than 160MWh pa is inconsistent:

- the Business Review Weekly²², quoting NEMMCO, indicates that 1,925 out of the total 2.2M Victorian customers using less than 160MWh pa had switched from their host supplier by the end of February 2002;
- it is generally considered that less than 5,000 <160MWh pa customers had switched in the first full month of the FRC in Victoria; and
- by the of May 2002, about 18,800 customers had switched, or were in the process of switching.

It is feasible that the low rate of churn reflects the fact that the constrained standing offer tariffs provide limited opportunities for developing comparatively attractive market offers to encourage customers to switch.

²² BRW, 28 February 2002.

Net benefits

Those customers using less than 160MWh pa that have remained with their host supplier (standing offer customers) may be considered to have experienced a detriment at the introduction of FRC. The detriment in this case, however, may stem from other factors, rather than being the result of FRC, namely:

- structural issues associated with the wholesale market; and
- other issues that were not fully reflected in the pre-existing regulated retail prices.

There is no publicly available information on the extent to which customers using less than 160MWh pa have switched supplier (ie market offer customers) have benefited from FRC. It is clear, however, that few such customers have switched.

Implications for the ACT

The Commission recognises that there are differences between the inter-jurisdictional arrangements in Victoria and NSW and the ACT. In relation to Victoria there has been too little time since the introduction of FRC for firm trends to emerge. However, there are early signs that should provide some level of confidence about FRC in the ACT. Although the introduction of FRC in Victoria was predominantly to small consumers and the Victorian Government invested significant resources in informing the community about FRC there has been a low rate of customer transfers. In terms of prices there is a greater benefit to larger customers than smaller, which is what is anticipated in the ACT. In Victoria there has also been little market volatility and systems have proved adequate. The Commission notes the view that on balance there may be more cost than benefit but that the net cost is slight. The Commission considers that the same outcome is probably what the ACT will experience, moderated to the extent that ACT consumers have benefited from comparatively lower prices than experienced elsewhere in the national market and that consequently there will be higher relative prices for small consumers as those lower prices are eroded. The Commission believes that this price advantage is a finite situation that will change over time whether FRC is introduced or not.

ATTACHMENT 3: RECENT FRC EXPERIENCE IN NEW SOUTH WALES

FRC timetable

The FRC timetable in NSW provides for staged introduction of retail competition as follows:

Table A3.1: NSW FRC timetable

Customer Class	Date	Threshold Condition
Large metropolitan hospital Heavy Manufacturing	1 October 1996	More than 40 GWh pa (Annual bill \$2,000,000+)
Multi-storey office block Food processing plant	1 April 1997	More than 4 GWh pa (\$250,000+)
Supermarket Engineering workshop	29 June 1997	More than 750 MWh pa (\$75,000+)
Fast food restaurant Service station	28 June 1998	More than 160 MWh pa (\$16,000+)
Medium sized businesses with multiple sites	1 July 1999	Aggregation of sites, each with minimum 100 MWh pa (\$10,000 + per site)
Department Stores, Poultry Farms	1 January 2001	100-160 MWh pa (\$10,000-\$16,000)
Restaurants, Medical Centres	1 July 2001	40-100 MWh pa (\$4,000-\$10,000)
Households, Small Businesses	1 January 2002	0-40 MWh pa (\$0-\$4,000)

Similar to the initial FRC arrangements in Victoria, the initial FRC timetable in NSW was determined by regulation and provided for FRC to commence from 1 January 2001 consistent with the CPA requirements. The relevant dates in NSW have been varied by the issue of Contestability Notices by the relevant Minister, similar to the Order in Council process applied in Victoria.

While subject to similar regulatory reform arrangements, the NSW electricity supply industry has not been privatised as in Victoria. There are four NSW franchise suppliers and regulated retail prices apply to those suppliers' standing offers to customers using less than 160 MWh pa until 2004.

In both the pre-FRC environment, in respect of tariffs for non-contestable customers, and in the post-FRC environment, in respect of standing offer customers, the host supplier may only sell to those customers at the regulated/capped retail rate. The cost recovery risks of the suppliers are managed by the following mechanisms:

- transmission and distribution service prices being subject to regulatory control under CPI-related formulas; and
- the cost of purchasing energy, as notionally determined on a half hourly basis under competitive conditions through the wholesale power pool, being hedged through the NSW Government Electricity Tariffs Equalisation Fund (EETF).

Similar to the initial franchise customer arrangements in the Victorian Electricity Supply Industry, the EETF provides for energy price hedging between franchise suppliers and generators. The arrangement requires suppliers to pay generators the difference between the market price and the hedge strike price when the market price is below the strike price. Generators pay suppliers the difference when the market price is above the strike price.

Form of FRC

Customers of different size classes must meet different criteria in order to be able to take supply from a supplier that is not their host supplier.

The switching criteria are the same as those applying in Victoria, namely:

- customers consuming more than 160MWh pa are required to have full metering; and
- customers consuming less than 160MWh pa are subject to deemed load profiling.

FRC effects

(i) Prices

Standing offer tariffs for customers using less than 160MWh pa that do not elect to switch suppliers are regulated pursuant to the determination made by IPART in December 2000.

Customers that have switched from their local supplier and have taken up another supplier's market offer are outside the regulated price protections.

While prices in the wholesale power pool have increased over time, franchise suppliers' pool price risks, which would otherwise be borne in full by those suppliers when selling to standing offer customers under the regulated/capped retail tariffs, are managed by the ETEF arrangements. As such, the effective cost of energy supplied to standing offer customers is the strike price in the ETEF and therefore, unlike supplies to equivalent customers in Victoria, suppliers in NSW under current arrangements are not as exposed to market-based energy costs.

Accordingly, prices for customers using less than 160MWh pa that have remained with their host supplier have not changed with the introduction of FRC.

In respect of market offer customers, namely those customers using less than 160MWh pa that have switched supplier, there is no publicly-available information on the price and the average price effects faced by those customers.

(ii) Customer switching

The information available on the extent of switching of small customers in NSW is inconsistent:

- The Business Review Weekly²³, quoting NEMMCO, states that 50 out of the total 2.7M customers using less than 160MWh pa have switched from their host supplier to another supplier and are thus on market offer tariffs;
- It is generally considered that less than 500 customers using less than 160MWh pa had switched in the first full month of the FRC in NSW; and

²³ BRW, 28 February 2002.

- by the of May 2002, about 12,800 customers had switched, or were in the process of switching.

As in Victoria, the low churn rate may reflect the fact that the constrained standing offer tariffs provide limited opportunities for the development of attractive market offers to encourage customers to switch.

Net benefits

Those customers using less than 160MWh pa that have remained with their host supplier (standing offer customers) have effectively experienced no change at the introduction of FRC. This is due primarily to the regulated price arrangements for these customers and to the supporting vesting contract (ETEF) arrangements put in place by NSW Treasury. These arrangements are feasible in this case given that the parties to the contracts are Government-owned.

There is no publicly available information on the extent to which customers using less than 160MWh pa that have switched supplier (market offer customers) have benefited from FRC. It is clear, however, that few such customers have switched.

Implications for the ACT

The comments made in relation to Victoria could well also be made in relation to NSW. It is too early to say what the balance of benefits and costs in NSW will ultimately be. However, there is no substantial price benefit to small consumers, even though larger consumers will benefit to a greater degree. Churn in the market is lower than in Victoria and by any measure insubstantial, despite the NSW Government spending substantial amounts on public information. The market in NSW, as in Victoria remains orderly, with the ownership arrangements in NSW playing a significant part in that process. The ACT is not in the same position as NSW in relation to generation and therefore is unable to provide the same level of market assurance. However, the security that consumers obtain from ownership arrangements such as those in NSW may not make much difference to the net benefits/costs of FRC in the ACT.

ATTACHMENT 4: FRC EXPERIENCE IN UNITED KINGDOM

FRC timetable

The FRC timetable in the UK provides for staged introduction of retail competition as follows:

Tables A4.1: Customer classification

Customer Class	Date	Threshold Condition
Large business customers	1990	Maximum demand over 1 megawatt.
Medium sized business Customers	1994	Maximum demand over 100 kilowatts.
Small domestic and business customers	Sept 1998 – May 1999	Maximum demand under 100 kilowatts. Three broad phases based on postcode: (1) 10 per cent of domestic and business customers defined by postcode plus all the customers that took supplies through a half-hourly meter. (2) Thirteen weeks later, approximately 30 per cent of domestic customers, plus all remaining business customers. (3) Thirteen weeks later, all remaining customers were added.

(Source: The England and Wales wholesale electricity market, Ofgem, 31 Jan. 2001, www.ofgem.gov.uk/docs2001/compcomm2.pdf)

The UK wholesale power pool is underpinned by a multilateral contract known as the Pooling and Settlement Agreement which is entered into by generators and purchasers. The Pooling and Settlement Agreement defines the market trading rules and procedures that control a competitive bidding process between generators that sets the price paid for electricity for each half-hour period of the day. It also provides the supporting financial settlement processes that calculate purchasers' bills and ensure payments to generators.

Table A4.2 shows demand-weighted annual average prices on the UK wholesale power pool. Thus it indicates that the real cost of purchasing energy on the UK wholesale power pool rose by approximately 6% in the period 1990/01 to 1999/2000. This represents a more moderate increase to that experienced on the NEM.

Table A4.2: Demand weighted prices UK

Year	SMP	Capacity Payments	PPP	Indexed PPP (99/00 = 100)	PSP
1990/91	23.87 ²⁴	0.08	23.95	94	25.25
1991/92	25.39	2.09	27.48	108	29.77
1992/93	28.5	0.26	28.76	113	30.57
1993/94	29.95	0.43	30.38	120	33.17
1994/95	25.89	4.65	30.55	120	33.64
1995/96	23.41	6.33	29.74	117	31.99
1996/97	24	4.48	28.48	112	30.83
1997/98	27.76	1.19	28.95	114	29.45
1998/99	26.1	1.31	27.41	108	27.81
1999/00	21.81	3.57	25.38	100	26.25

Source: Ofgem.

²⁴ £/MWh, September 2000 prices

Form of FRC

As in Victoria and NSW, a small customer²⁵ may switch suppliers if they either have interval meters and associated communications equipment, or if load is to be measured by standard meters in conjunction with deemed load profile.

The cost of installing an interval meter and the associated communication interface is approximately £100-200. There is also an annual charge of £299. This cost is expected to fall significantly with large production runs to around £40-50.

FRC effects

(i) Prices

In the period from April 1998 to April 2000 the average annual domestic electricity bill fell by 11% per cent in real terms²⁶. This is the equivalent of almost \$A2 billion per annum.

Table A4.3: Average annual domestic electricity bill

	Nominal	Real
April 1998	252	268
April 2000	238	238
Reduction	14	30

(Source: OFGEM, Annual Report 2000-01, Chapter 4 "Competition in Gas and Electricity Supply")

Further, electricity customers attracted a range of competitive offers compared to the tariffs offered by their local suppliers with reductions of up to 17% for direct debit, up to 14% on other credit tariffs and up to 7% on prepayment.

(ii) Customer switching

In percentage terms, 38% of all domestic customers with a maximum demand of less than 100 KW had switched suppliers as at August/September 2001 since full contestability began in 1998. As at August/September 2001 there had been approximately 11 million gross transfers in total. The rate of transfers continued at a steady rate of about 5 million transfers per year, or about 100,000 per week to September 2001.

The following table shows the proportion of customers in special groups that have switched supplier, at August/September 2001, compared with the previous year:

²⁵ In the UK a small consumer is defined as using less than 100MW

²⁶ Based on an average consumption of 3,300 KWh standard credit customer

Table A4.4: Percentage of customers that have switched

Customer Group	Proportion that have switched (%)	
	2000	2001
All domestic electricity users	19	38
Very low income earners	13	43
Disabled customers	21	44
Single parent families	19	43
Pensioners	20	30
Geographic area		
Urban	20	41
Rural	17	32

(Source: Review of Domestic Gas and Electricity Competition and Supply Price Regulation, Ofgem, November 2001, p.25-28)

The table confirms that switching rates have increased over time. However, pensioners and rural electricity customers continue to have a lower than average switching rate.

Net benefit

During the first eight months of competition in the UK market, suppliers and customers alike experienced significant changes. In 1999 a review of the development of competition by the Office of Electricity Regulation (OFFER) reported that competition was progressing well but that suppliers needed to make customers more aware of the potential savings without confusing them²⁷. It also noted that further benefits could be achieved using education programs to inform customers of potential benefits that arise out of competition.

A review of the energy market undertaken by the Office of Gas and Electricity Markets (OFGEM) in 2001 noted that customers are now able to obtain significant savings by switching between suppliers²⁸. Competition in this market is now firmly established and potential savings and benefits arising out of this competition are serving to protect consumers’ interests. The cost of regulation has decreased and customers are now being sent appropriate and timely price signals.

²⁷ Source: OFFER, A Review of the development of competition in the Designated Electricity Market, June 1999, p.71.

²⁸ Source: Review of Domestic Gas and Electricity Competition and Supply Price Regulation, Ofgem, November 2001, p.2.

ATTACHMENT 5: FRC EXPERIENCE IN CALIFORNIA

FRC timetable

At 31 March 1998, customers in most existing electricity utility service areas were free to choose their electricity supplier/generator (referred to as direct access in California).

From 17 January 2001, retail choice was suspended in California. Any existing contracts were permitted to continue until they expired.

Form of FRC

While under the Californian model customers were free to choose their electricity supplier, uniform capped prices were applied for delivered energy.

Customers were not required to have interval metering in order to switch from their host supplier.

FRC effects

(i) Prices

The following price arrangements were adopted in California, becoming law at 23 September 1996:

- Regulated investor owned utility rates for agricultural, residential, industrial and large commercial customers were frozen at June 1996 levels until the utilities recovered their generation related uneconomic costs through a transition charge, or until 31 March 2002, whichever is the earlier;
- Commencing from 1 January 1998, rates for residential and small commercial customers (defined as 20 KW or less peak demand) were reduced by 10% and were to remain fixed thereafter until the utilities recovered their generation-related uneconomic costs through a transition charge, or until 31 March 2002, whichever is the earlier.

These regulatory arrangements had significant impacts on California's market. The price freeze and reduction resulted in significant falls in California's average retail prices. In turn, the lack of demand signals in retail prices led to large price spikes in the wholesale power pool. By mid-2000 one of the major investor-owned utilities, SDG&E, had completed the competitive transition change and was therefore able to charge its customers unregulated prices and therefore to pass through wholesale costs to its customers. In addition to price spikes, wholesale electricity prices were also generally increasing (eg from June 1999 to June 2000, by 270%). For SDG&E, this meant retail prices for delivered energy increased from c.11c KWh to c.16c KWh.

At this point, legislation was introduced to prevent the retail price increases by capping the energy component of electricity bills for residential, small commercial and lighting customers of SDG&E at 6.5 cents per KWh. This resulted in large financial losses for SDG&E.

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The general price freeze was applied to other electricity suppliers, with dire consequences. The retail price freeze prevented utilities from recovering the wholesale costs of electricity putting them in a financially difficult situation with some having to declare bankruptcy. Worried about their financial status, generators refused to sell electricity to the Californian electricity suppliers thereby aggravating the state's supply-demand imbalance. Also contributing to power shortages was the dramatic increase in demand, having increased by 29% over the past five years. Because consumers were shielded from market prices during this period there was no incentive for them to reduce demand. The capacity shortfall led to reliability problems including rotating blackouts.

As the situation worsened the government intervened, buying power on behalf of consumers in the first instance, then entering into long term contracts with both existing and future generation plants. The cost of those long term contracts is estimated to be nearly \$US50 billion in total.²⁹ So ironically, the Government moved away from a competitive market towards massive government involvement in the electricity market.

On 17 January 2001, the Californian Governor declared a state of emergency and, in response, the legislature suspended retail choice in California.

Table A5.1: Weighted average electricity rates

1990-2000				
Weighted Average Electricity Rates				
Nominal Cents per kilowatt-hour (¢/KWh)				
Year	Residential	Commercial	Industrial	System Average
1990	10.40	9.69	7.29	9.36
1991	11.06	10.07	7.48	9.80
1992	11.51	10.44	7.60	10.17
1993	11.64	10.29	7.30	10.08
1994	11.79	10.47	7.33	10.22
1995	11.60	10.06	7.03	9.90
1996	11.66	9.71	6.69	9.71
1997	11.66	9.68	6.68	9.69
1998	10.94	9.62	7.45	9.57
1999	10.94	9.54	7.45	9.54
2000	11.19	9.75	7.68	9.76

Note: These averages only include rates for PG&E, Edison, SDG&E, LADWP and SMUD. Systemwide rates only include residential, commercial and industrial customer classes. 2000 rates are estimated.

(Source: California Energy Commission, Electricity rates, <http://www.energy.ca.gov/electricity/index.html#numbers>)

(ii) Customer switching

Observers have noted that the margin between the regulated rate and the break even profit line of suppliers was relatively small. The size of this margin affected the suppliers' ability to offer electricity prices at rates sufficiently below the regulated price to stimulate customer churn at any significant rate. The result was that customers continued with their traditional distribution providers.³⁰

²⁹ Anthony Swan and Christopher Short, "Californian Electricity Market Reform", ABARE, Current Issues, August 2001, p 1.

³⁰ Learning from California: Power Shortages and Unique Market Rules Lead to Price Spikes, Edison Electric Institute.

Net benefits

The problems experienced in the Californian market have been widely discussed and published. The structure of the market enforced too many constraints on the operation of the market, thus eroding any of the potential net benefits. The Californian example has been used by the Commission as an example of what not do when introducing FRC in the ACT market.

Implications for the ACT

Retail prices need to reflect wholesale electricity costs. The lack of this linkage in the Californian market ultimately led to the failure of the entire market. It is unsustainable for a regulator to set prices lower than wholesale cost as eventually the consumer must pay the difference, either through higher long term prices or higher taxes. The controlling of retail prices by a regulator stifles retail competition and has the potential to put upward pressure on prices.

ATTACHMENT 6: REFERENCE

Australian Capital Territory

INDUSTRY REFERENCE FOR INVESTIGATION INTO FULL RETAIL CONTESTABILITY FOR ELECTRICITY

Disallowable instrument DI2001-346

made under the **INDEPENDENT COMPETITION AND REGULATORY COMMISSION ACT 1997, Section 15 (Nature of industry references) and Section 16 (Terms of industry references)**

Reference for Investigation Under Section 15

Pursuant to subsection 15(1) of the Act, I refer to the Independent Competition and Regulatory Commission (the “Commission”) the matter of an investigation into the public benefit of the extension of full retail contestability for electricity in the ACT.

Specified Requirements in Relation to Investigation Under Section 16

Pursuant to subsection 16(1) of the Act, I specify the following requirements in relation to the conduct of the investigation:

The Commission is to have regard to the following in its investigation:

1. The costs and benefits of the implementation of full retail contestability for electricity for the ACT, taking into account the Territory’s obligations under the Council of Australian Governments (COAG) and National Competition Agreements. The review should include options for the ACT in relation to:
 - (a) proceeding as soon as management and administrative systems allow; and
 - (b) not proceeding at this time.
2. Identifying and describing the electricity market participants using 100 Megawatt/hours per annum (MWh pa) or less;
3. Identifying and quantifying the costs and benefits (financial and non-financial) flowing from the extension of full retail competition for electricity in the ACT to customers using 100 MWh pa or less. This should include the effect of possible changes in electricity prices for different categories of customers, including those who may be socially disadvantaged;
4. The means and costs of avoiding or mitigating any adverse impacts on consumers, particularly those socially disadvantaged;
5. Whether or not the ACT should adopt deemed profiling of customer usage and the desirability or otherwise of moving to full metering;
6. An assessment of studies and/or experience in other jurisdictions with the

Independent Competition and Regulatory Commission

7. Implementation of FRC for the different classes of small business and residential users; and
8. Any other related matters.

In undertaking the investigation, the Commission is to:

- (i) canvass the views of key stakeholders including, consumer groups, small business representatives, social welfare groups and electricity suppliers and suppliers; and
- (ii) conclude the investigation by 31 March 2002 and report as soon as practicable thereafter.

Dated this 18th day of December 2001

TED QUINLAN
TREASURER

ATTACHMENT 7: LIST OF SUBMISSIONS

Public Submissions received on the Issues Paper

<i>Contact Name</i>	<i>Organisation</i>
Daniel Stubbs	ACT Council of Social Service
John Mackay	ActewAGL
Nicola Davies	Conservation Council of the South East Region and Canberra
Peter Sutherland	Essential Services Consumer Council

Public Submissions received on the Draft Report

<i>Contact Name</i>	<i>Organisation</i>
Daniel Stubbs	ACT Council of Social Service
John Mackay	ActewAGL
Nicola Davies	Conservation Council of the South East Region and Canberra
Peter Sutherland	Essential Services Consumer Council