IPART Review of Electricity Prices 2007-2010

AGL Response

on

Frontier Economics & SFG Consulting draft reports

February 2007

PREAMBLE

In June 2006 the NSW Minister for Energy (Minister) issued a Terms of Reference (TOR) to the Independent Pricing and Regulatory Tribunal (Tribunal) requiring the Tribunal to investigate and report on the regulated electricity retail tariffs and charges that will apply from 1 July 2007 until 30 June 2010.

As a part of this investigation the Tribunal has engaged Frontier Economics (Frontier) in conjunction with Strategic Finance Group Consulting (SFG Consulting) to develop cost allowances for retail costs and retail margin. In addition, Frontier has been retained to assist the Tribunal to develop an allowance for the energy costs to be factored into the regulated retail prices.

With regard to the retail costs and retail margin, the TOR require the Tribunal to consider an allowance for mass market new entrant (MMNE) retail costs and retail margin.

With regard to energy costs, the TOR require the Tribunal to determine an allowance for electricity purchase costs based on an assessment of the Long Run Marginal Costs (LRMC) from a portfolio of new entrant generation. To be included are allowances for compliance with any renewable energy targets and other "green" licence requirements, NEMMCO fees and hedging, risk management and transaction costs.

AGL Sales Pty Ltd (AGL) is pleased to be able to provide comment on the public draft reports prepared for the Tribunal by Frontier and SFG Consulting.

EXECUTIVE SUMMARY

AGL is a new entrant retailer in the NSW electricity market and is committed to providing its customers with electricity at reasonable prices that reflect the costs and risks incurred in supplying electricity.

AGL has reviewed the public draft reports prepared for the Tribunal by Frontier and SFG Consulting and our detailed comments are contained in the body of this submission. In summary, AGL:

- supports a market-based approach to determining energy purchase costs. This approach more closely reflects the actual energy purchase costs incurred by retailers including the cost of energy from the NEM pool, hedging costs, costs to address a range of risks (forecast risk, demand volatility, liquidity, etc). These costs reflect not only the risks in managing variable demand but also the underlying costs of existing generation assets.

- considers LRMC to be a theoretical economic cost that is based on an efficient mix of plant (not costs of existing generation assets) and a high level certainty of market demand. While it can be argued in the long term LRMC may reasonably reflect future energy costs it will tend to understate energy costs associated with existing generation plant and provides insufficient coverage of the risks faced by retailers in the market over the period of the price determination. For example, the consultants LRMC cost projection is $30-$46/MWh for 2007/08, market based prices for hedges for the period are likely to be of the order of $60/MWh.

- requests that the market based costs proposed by the consultants be further developed to sufficiently address the full range of risks faced by retailers. It is expected that this would result in a higher energy cost outcome.

- agrees that retail costs should comprise both operating costs and customer acquisition costs. AGL considers that the consultants assessment of total retail costs warrants further consideration. Specifically:

  - The consultants assessment of Retail Operating Costs (ROC) of $60-$80 per customer is below current operating costs of new entrants retailers and the ROC benchmarks currently used in other jurisdictions ($93-$95 per customer);

  - The consultants acknowledge that the standard retailers in NSW are stapled retailer/distributor and that operating costs for such entities are likely to be lower than for a stand alone MMNE. Yet no allowance for this has been made as the ROC has been assessed using historical standard retailers costs. Furthermore, forecast costs of standard retailers have been ignored on the basis that the consultant's own view that ROC should decrease over time. No justification or reasonable explanation is provided for this view.

  - No consideration has been given to changes in the operations of retailers that may occur over the price period such as the increased costs arising from the rollout of interval meters, hardship programs and increasing demands by

customers. The underlying cost drivers such as labour cost increases will also impact the escalation of ROC over the period. The consultant's report provides no discussion on the changes to ROC over the price period.

- The level of customer acquisition costs per annum is based on a 10-year retention of customers. AGL's experience would suggest a shorter retention period of closer to 5 years. The annual churn rates exceed 20% per annum in the competitive markets of Victoria and SA and this would further support a shorter retention period.

- notes that the consultants proposed margin range of 4-6% is higher than the margin the Tribunal has determined in prior price paths. While this a positive shift ultimately the margin allowed should be a reflection of the returns investors would expect from businesses operating in an industry with the risk profile of the energy industry. While certain costs and risks have been/will be captured in the various cost benchmarks an appropriate margin is necessary to ensure prices are at a level to support the future investment in generation capacity and support the objective of reducing customers reliance on regulated tariffs.

- Advises that the proposed margin of 4%-6% is below AGL expectations of margin and below margins available in the Vic and SA markets.

ENERGY COSTS

Frontier considers two different approaches to determining energy costs; the Long Run Marginal Costs (LRMC) approach and the market-based approach.

Frontier advises that its approaches take account of the increased energy purchase cost uncertainties facing standard retailers with the gradual roll-off of ETEF. If future energy costs are underestimated then standard retailers face a potential financial loss of selling electricity more cheaply than its purchase costs. Frontier also contends that if costs are overestimated then standard retailers will be provided with a windfall that they could use to price more competitively than retailers that do not serve regulated customers.

AGL comments

AGL considers that the foundations of sustainable retail competition are predicated on an allowance for the actual Wholesale Energy Costs (WEC) that confront a retailer, as opposed to a theoretical assessment of the LRMC of the optimum mix of generating plant.

In consideration of any windfalls associated with an overestimation of WEC or retail margin, AGL is of the view that any abnormal allowance for WEC or retail margin would be competed away by new entrant retailers such as AGL.

Conversely, the issues associated with a price cap that is too low are unable to be resolved by market forces:

- New entrant retailers pursue more viable markets;
- Incumbent retailers experience costs that exceed the regulated price cap; and
- Private investment in generation is stifled.

Long Run Marginal Costs

The TOR requires that an allowance for electricity purchase costs be based on an assessment of the LRMC from a portfolio of new entrant generation. Frontier has chosen to use a stand-alone approach to modelling the LRMC as this approach (which assumes that there is currently no plant available to serve the load) is more consistent with the TOR than the alternative incremental load approach which tends to produce a lower estimate of LRMC as it is usually cheaper to expand existing facility.

Frontier uses an in-house model to determine the least-cost mix of LRMC generation and greenhouse abatement investments to meet the load profile of each standard retailer's regulated customers. Frontier notes that the differences in LRMC between the standard retailers are driven by the differences in their load profiles and that a less peaky load is cheaper to supply as less peaking plant is required to meet that load.

AGL comments

Regardless of generation cost incurred, generation asset owners ultimately sell hedge contracts at prevailing market prices or generate into the pool and obtain spot prices that are reflective of the daily constraints of demand and supply. As a retailer, AGL is captive to these actual or market-based costs and hence considers the "market-based approach" to be the more appropriate method of determining wholesale energy cost.

Whilst estimating the LRMC of the most efficient mix of plant is an interesting theoretical exercise, the relevance of applying the resulting wholesale energy cost is questionable when the actual mix of plant over the 3-year determination period is considered.

As testament to the differences experienced between the LRMC of new entrant generation and market prices, it has been observed that the load-weighted spot outcomes in NSW have exceeded the LRMC prices indicated by Frontier. As the Tribunal would be well aware hedge contracts have overwhelmingly required a premium for certainty of pricing over and above the spot market outcomes.

Market-Based Approach

Frontier observes that there are several different sources of data available on the expected future costs of purchasing energy. These include the standard retailer's own estimates, third-party sources (AFMA, ICAP, d-cypha) and simulated market prices. Frontier has analysed all three methods to arrive at a range of possible outcomes for future efficient energy purchase costs.

Frontier remarks that the most notable features of the energy purchase cost results are the differences between the three standard retailers and the differences between the lowest and highest forecast costs. Cost differences between retailers are driven by load shape; estimated efficient energy purchase costs are at or below energy prices included in the current determination and decline over the regulatory period.

AGL comments

AGL supports a market-based approach to determining energy purchase costs. For most retailers, wholesale energy cost arises from having to purchase market-based contract instruments. Whilst the approach taken to model the wholesale energy cost for each Net System Load Profile (NSLP) appears sound, the distribution of the results over each NSLP indicates that there may be some inconsistencies associated with the inputs of load, pool price and hedging methodology. AGL has not been engaged in a detailed review of the inputs but considers that the following aspects of market-based pricing are important.

Hedging Methodology

Good corporate governance demands that prudent retailers manage the purchase of electricity within the parameters of a board-approved risk management policy. The hedging strategy of a retailer is likely to vary from the optimum position (efficient frontier) given inherent load and pool price forecast error. An allowance should be made for this.

Furthermore, hedging strategy is not always about the theoretical optimum position but about what can be afforded considering:

- Shareholder expectations concerning variability of returns, including the ability to ride out short-term adverse results in favour of a better longer-term result. This can be a barrier to entry for a MMNE retailer;
- Other more specific issues include the targeted level of maximum demand as a basis for hedging (10% POE or 50% POE), varied by month and the cap to swap ratio.

Price Traces

The half-hourly correlation between spot price and demand in each NSLP is crucial in determining the final wholesale energy cost. Of particular importance are:

- The assumptions made about the distribution of the more volatile prices $300-$ 10,000/MWh;
- The appropriate number of pool price traces to create a meaningful and probability-based distribution of WEC outcome; and
- Representations of shifts in value between underlying and volatile components over time, ie linear scaling does not capture this.

Load Traces

The half-hourly correlation between spot price and demand in each NSLP is crucial in determining final wholesale energy cost. Of particular importance are:

- Load growth due to penetration of air conditioning and netting off of interval-metered large off-peak users impact on the load duration curve and the need to factor these into the NSLP forecasts;
- the modelling of this aspect. We would advise against a NSLP forecast for the 3-year price review period that has been normalised on 5 years of historical load duration curve. Using actual loads from 2001/02 to inform the loads for 2010 ignores the considerable impacts over a number of years of the issues flagged above.

Other Risks

A MMNE in the NSW electricity market faces a range of risks, including:

- Volatility of the electricity price. Over the past few years, the NSW pool and contract price has been the most volatile in the National Electricity Market (NEM);
- Unpredictability of customer load:
  - the NSW mass market load is highly weather sensitive and pool costs on peak summer days can be extreme;
  - consumption patterns of customers are changing due to increased air conditioning and other electrical appliance penetration;

  - increasing levels of customer churn make customer number expectations unpredictable; and
  - 'cherry picking' of customers causes a highly variable NSLP;
- Liquidity Risk. Volatility in the NSW price can result in a lack of liquidity for retailers in certain periods;
- Credit Risk. Some counter-parties expose retailers to risk of default; and
- Contract risk, eg carbon uplift.

Retailers can manage energy purchase risk by entering into hedging contracts with third parties and/or investing in upstream generation assets. To the extent that this second option can mitigate some risks, it exposes vertically integrated retailers to others, such as generator outage, unpredictable fuel costs and volatility in demand.

Whilst there are hedging products available to mitigate risk, AGL is of the view that even with very conservative hedging practices, the wholesale electricity risk to retailers can be extreme. With increased wholesale energy load purchases subject to the pool price, the roll-off of ETEF is likely to have a substantial effect on generation activities and electricity wholesale pricing arrangements.

AGL is of the view that consideration should be given to hedging, risk management and transaction costs over and above the LRMC (which does not incorporate these aspects of retailing electricity to customers). As discussed at the public forum by a number of retailers it is not clear whether the risks listed above have been adequately captured in the energy costs benchmarks.

Greenhouse Cost Allowances

AGL believes that the estimates of LRMC are in line with our project development analysis across the schemes. The secondary market that exists remains illiquid both in terms of price availability and volume represented on the bid and offer therefore LRMC is the only way to adequately reflect the retailer's costs when complying with either MRET or the NSW GGAS Schemes.

These schemes operate on the basis of a slow ramp up rate whilst allowing project pay-back times of 15 years, this necessitates a surplus of certificates in the earlier years of the schemes which weighs on the markets close to Spot. None the less in order for the schemes to operate, retailers are compelled to contract with various projects over the long term to enable them to be built in the first place. As such any consideration of 'pass-through' rate should be based upon the real costs of the various schemes and not short term price moves within a secondary market.

MASS MARKET NEW ENTRANT RETAIL COSTS AND RETAIL MARGIN

Mass Market New Entrant (MMNE)

The TOR define a MMNE as a "new entrant that is of sufficient size to achieve economies of scale". Frontier/SFG Consulting consider that a MMNE would likely be an existing energy retail business with a large customer base outside NSW so that the retailer's existing systems could be used to enter the NSW mass market.

Frontier/SFG Consulting consider that there are economies of scale associated with retailing and that these are largely achieved with relatively low customer numbers. That is, retailers operating at different scales can achieve similar average costs – small retailers can compete with larger retailers. As such, Frontier/SFG Consulting believe that the retail costs of a standard retailer should provide a reasonable estimate of the retail costs of a MMNE.

Frontier/SFG Consulting also acknowledge that there are some benefits to a MMNE if it is vertically integrated into electricity distribution or generation. A higher retail margin would be more appropriate for a stand-alone MMNE than for a retailer/generator and retail costs would be higher for a stand-alone MMNE than for a retailer/distributor.

AGL comments

AGL agrees that a MMNE would most likely be an existing energy retail business in another jurisdiction. AGL considers in this context it is a MMNE electricity retailer in NSW.

Whilst Frontier/SFG Consulting recognise that each of the standard retailers in NSW is a stapled retailer/distributor and consider that there is some risk that the retail costs for a stand-alone MMNE could be understated, this detail appears to have been ignored when calculating MMNE retail costs.

From experience, AGL is aware that stapled retailer/distributors have lower business-to-business (B2B) costs than a MMNE, both as a capital cost and a day-to-day cost. In SA, the joint retailer/distributor system, with a single shared capital cost, was separated into independent systems with B2B gateways in preparation for Full Retail Contestability (FRC). This lead to a considerable increase in capital and operating costs for the retailer.

The consultant's view that a higher retail margin would be more appropriate for a stand-alone MMNE than for a stapled retailer/generator is counter-intuitive. Such a statement assumes that the generator always addresses the risk, which is not necessarily true.

Retail Costs

Frontier/SFG Consulting outline two broad categories of retail costs that are incurred by a MMNE - Customer Acquisition Costs (CAC) which are primarily marketing and

acquisition costs and Retail Operating Costs (ROC) which relate to billing and revenue collection, call centres and corporate activities.

CAC

Frontier/SFG Consulting performed both a bottom-up cost approach, using data sourced from the information request provided to standard retailers, and a benchmarking approach, to determine an appropriate allowance for CAC. Retailers indicated that the cost of acquiring a new customer (whether residential or business) is around $200. Based on the experiences of other jurisdictions, Frontier/SFG Consulting considered it reasonable to assume that residential customers are retained for 10 years and business customers for 6 years.

Based on the above and applying a discount rate of 8%, Frontier/SFG Consulting arrive at a MMNE CAC of $25-$30 per customer per annum (2006/07 dollars) for residential customers and $40-$45 per customer per annum (2006/07 dollars) for business customers.

AGL comments

AGL supports the inclusion of customer acquisition costs but considers that a shorter retention period will be evident during the price path period resulting in a higher CAC component in total retail costs.

Subject to the final decisions of this review it is likely that the level of competitive activity in the NSW market will increase over the next three years and there will be less reliance of customers on regulated prices (ie more customers on market contracts). Based on customer churn rates in South Australia and Victoria which exceed 20% per annum, AGL believes that residential customers will be retained closer to 5 years and business customers for 3-4 years.

AGL considers that a CAC derived from using a shorter retention period will more closely reflect the costs experience by MMNE retailers. AGL has provided information of its acquisition costs to the Tribunal on a confidential basis.

ROC

Frontier/SFG Consulting use both a bottom-up cost approach and a benchmarking approach to determine an appropriate allowance for ROC. However, Frontier/SFG Consulting consider that limited weight should be given to retailers' forecasts of ROC.

Retailers reported forecast increases in the fixed component of ROC over the regulatory period; Frontier/SFG Consulting expect the fixed component to fall. Frontier/SFG Consulting give two reasons for this. Firstly, some fixed costs will become variable over the regulatory period, such as customer information systems that will be able to be scaled down in size as they are renewed. Secondly, improvements in productivity are expected, especially in the areas of billing and revenue collection, call centre costs and customer information costs.

Retailers also reported forecast increases in the variable component of ROC. Frontier/SFG Consulting expect the variable component to fall due to reduced output required from fewer customers.

Frontier/SFG Consulting instead base their estimate of ROC on the average of each retailer's *actual* ROC over the period 2002/03 to 2005/06. Their recommendation is

for ROC to be set at between $60 and $80 per customer per annum (2006/07 dollars).

AGL comments

The recommended ROC range is below current costs incurred by MMNE retailers. Retail operating cost benchmarks agreed in the current multi-year price paths have a current value of $93 in SA and $95 in Victoria. These cost benchmarks:

- Do not include any allowance for marketing and acquisition costs in SA;
- Do not include any allowance for retailer-funded hardship programs (the Victorian Government has allowed an additional $4 per customer to fund incremental hardship initiatives); and
- Do not incorporate any costs associated with the roll-out of interval metering.

Frontier/SFG Consulting are aware that, as each of the standard retailers in NSW is a stapled retailer/distributor, MMNE retail costs could be understated. Yet their estimate of ROC is based on historical stapled retailer/distributor costs. AGL considers it inconsistent to use historical costs yet ignore retailers forecast costs.

AGL agrees that retail operating costs are predominantly fixed. AGL expects that standard retailer costs will rise as fixed costs are spread over a smaller customer base; Frontier/SFG Consulting expect the fixed component to fall as some fixed costs become variable. AGL would not expect the system costs of a MMNE to move from being fixed to being variable over the price path period. Furthermore, AGL would not expect the variable costs of a MMNE to fall as, in line with the definition in the TOR, it is assumed that the MMNE has achieved economies of scale.

It is not clear how ROC will change over the price path period. AGL notes that simply escalating historical costs by CPI when determining the historical average may lead to an underestimation of costs as certain costs would have escalated at rates higher than CPI (eg labour costs). . Over recent years there has been a trend towards greater service levels, including those relating to the roll-out of interval meters (data management and other costs) and community hardship program expectations. It is imperative that current cost allowances for these and other anticipated programs are included in ROC.

Additionally, AGL has projected that labour-related costs, for example for call centres, are likely to increase by greater than CPI over the price path period (AGL's Certified Agreement in NSW includes a 4% wage increase for 2007/08). Furthermore, AGL's experience nationally is that there is an increase in the demands by, and expectations from, customers, customer groups, governments and regulators, leading to an increase in labour-related costs.

Total retail costs

Frontier/SFG Consulting recommend a range for total MMNE retail costs (ROC plus CAC) that have been benchmarked against cost allowances in other jurisdictions and found to be consistent:

- $85-$110 per customer per annum (2006/07 dollars) for residential customers;
- $100-$125 per customer per annum (2006/07 dollars) for business customers.

AGL comments

The allowances for total retail costs warrant further consideration to take account of likely customer retention periods and changes to level of service and cost drivers impacting on operating costs.

Conversion ($ per customer to $ per MWh)

Frontier/SFG Consulting determine the average energy per customer (MWh/customer) by using the standard retailers' forecast energy sales and forecast customer numbers.

AGL comments

An accurate forecast of average consumption per customer is paramount to ensuring appropriate conversion of operating cost per customer to operating cost per MWh. Adopting an inaccurate conversion factor can have an adverse impact on retailers and customers.

Using an inaccurate forecast of average consumption can lead to significant conversion error, resulting in an under-recovery of retail operating costs and considerable reduction in the allowed retail margin.

Retail Margin

Frontier/SFG Consulting considered three approaches to estimating the retail margin for a MMNE – the bottom-up approach, the expected returns approach and benchmarking.

The bottom-up approach estimates the return that a MMNE requires for each of the individual risks that it faces. By assessing a retailer's EBITDA a margin of between 4.1% and 4.8% is arrived at.

The expected returns approach considers the relationship between expected returns on investment and the systemic (market) risk of those returns. Using this approach Frontier/SFG Consulting arrive at an EBITDA margin of between 4.4% and 6.4%.

Benchmarking against other jurisdictions suggests that a margin (on sales before interest and tax) of between 1.5% and 8% would be appropriate.

On the basis of the above results a MMNE retail margin of between 4% and 6% is recommended by Frontier/SFG Consulting.

AGL comments

The recommended MMNE retail margin is well below the 5% to 10% EBIT to sales range set in recent jurisdictional decisions. Frontier/SFG Consulting has benchmarked against a broad range of allowable margins from 2000 to 2005, including those in jurisdictions where energy purchase risk and contestability risk were noted as being low.

AGL believes that it is more appropriate to consider margins set recently in jurisdictions where competition is effective. As such, greater consideration should be given to margins awarded in recent years in Victoria and South Australia. With the transition to a competitive market and the gradual roll-off of ETEF there is an expectation that the benchmark margin will grow over the price path.

The actual margin earned by retailers is directly impacted by both the percentage margin allowed and the validity and accuracy of the benchmark costs. It is therefore critical that benchmark costs reflect actual costs incurred or the benchmark margin will not be achieved.

Finally, the regulated margin needs to be sufficient to enable the transition to market based prices and to reduce the reliance on regulated prices.