AGL Response to the Independent Pricing and Regulatory Tribunal

Changes in regulated electricity retail prices from 1 July 2011, Draft Report

Date: 13 May 2011

Executive Summary

AGL welcomes this opportunity to provide comment on the Draft Report released by the Independent Pricing and Regulatory Tribunal ***(IPART)***.

Overall, the Draft Report presents a reasonable outcome for the market –as it will ensure the strong level of competition that exists in NSW continues into the future. The Draft Report also suggests a methodology which will continue to provide investment certainty for retailers that is necessary for the long term security of supply in NSW. This is attributable to the application of the Long Run Marginal Cost (***LRMC***) of generation as the floor to the wholesale electricity cost allowance. It's paramount this methodology continues into the future in order to provide ongoing certainty to investors.

However, AGL does have concerns with some elements of the Draft Report. In this submission AGL addresses some of these detailed aspects of the methodology adopted by IPART's consultants, Frontier Economics, in determining the wholesale energy cost. In addition, AGL takes this opportunity to comment on the Recommendations made by IPART in its Draft Report in relation to issues which will affect NSW regulated prices into the future.

Summary of AGL's comments on the methodology

AGL has the following concerns with Frontier / IPART's methodology for determining the wholesale electricity cost allowance.

<u>Modelled price does not reflect reality</u>

AGL again has concerns with the results of the modelling conducted by Frontier in relation to determining market based costs. AGL notes that it raised these concerns in respect of the 2010-2013 Regulated Price Determination (***2010 Determination***). AGL is of the view that:

- The market based price modelled by Frontier is too low, and that in reality the "gap" between the LRMC and the market based cost incurred by a prudent retailer is not nearly so great as suggested by Frontier. Comparing Frontier's modelled market price to a D-Cypha contract price obtained at a point in time is not a robust comparison. The appropriate comparison would be a hedge cost developed using 2 or more years of contract price information. Frontier's results therefore overestimate the difference between the LRMC and market prices.
- Frontier has modelled the NGAC and LGC price in the same way as it did in the 2010 Determination, and AGL makes the same comments now it did then – namely that this approach underestimates the LRMC of LRET and GGAS and that an alternative approach should be adopted. AGL notes that this issue may be ameliorated if IPART adopted an approach excluding an assumption until carbon legislation is in place.

<u>Frontier should use more recent public LRMC input data</u>

- We understand Frontier has largely relied on up-dated input assumptions produced by ACIL for the QCA's 2011 Price Review for its LRMC analysis. AGL is of the view that the input assumptions published by AEMO as part of the 2010 National Transmission Network Development Plan (***2010 NTNDP Data***) represents the most appropriate source of data for the purpose of updating the energy cost allowance.

Consistency of approach to forward assumptions and cost pass through required

AGL believes that Frontier and IPART must take a consistent approach in determining the 'threshold' criteria for the treatment of assumptions based on policy settings – the threshold for including an assumption in the forward analysis must be the same threshold applied in determining whether there has been a relevant trigger for the purpose of a cost pass through in current and future years.

In the 2010 Determination, IPART proceeded on the assumption that the CPRS would commence on 1 July 2011, on the basis that this was the policy position of the current government. This assumption significantly contributed to lowering the modelled price of the NGACs and RECs, while having no impact on the 'black' LRMC. The policy position of the government changed and the CPRS was delayed. However, IPART has not considered the policy decision to delay the introduction of the CPRS as sufficient to trigger a cost pass through event. And now, in the context of the annual review, IPART is again premising its analysis on an assumption that a carbon price will be imposed in 2013/14 on the basis of the policy position of the current government. This assumption is again suppressing the modelled price of NGACs and the LRET, with a clear implication on the basis of the approach adopted by IPART to the cost pass through application that there would be no possibility of IPART compensating retailers if a carbon price is again delayed.

AGL is of the view that if IPART is to include an assumption on the basis of a policy position, then a change in that policy position must be sufficient to trigger a cost pass through event. Alternatively, if IPART considered legislative or regulatory change to trigger a pass through, then it should consider a legislative or regulatory mechanism necessary for such an assumption to be included in the forward analysis.

AGL's comments on IPART's recommended actions to improve electricity affordability

AGL has provided comments on some of the recommendations made by IPART.

Recommended action: To ensure that we set an appropriate, cost reflective price, the NSW Government give IPART more flexibility to determine retailers' efficient costs in the terms of reference in any price determination to apply from 2013 onwards.

AGL supports the premise of LRMC as a floor. AGL believes this methodology balances the need to account for exposure to short term, volatile, market costs while ensuring long-term security of supply.

We also note IPART acknowledges that the LRMC floor encourages investment in generation and stabilising price volatility. For example, IPART has recently stated:

> *LRMC is the cost at which new generation capacity is made available, the terms of reference ensure that the regulated retail price is sufficient to justify further investment in generation.*[1]

However, IPART state they believe the regulator should have more 'discretion' in determining the methodology for price reviews. AGL does not support this proposal, particularly in the absence of further detail. AGL would be concerned if this discretion resulted in the removal of the LRMC floor. AGL would like to understand the criteria IPART would seek to apply in exercising any such discretion, and seeks further clarification on this point.

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[1] IPART, *Changes in Regulated Electricity Retail Prices from 1 July 2011- Electricity Draft Repor*t, April 2011. p.7

It is also important to note in this context that the difference between the LRMC calculated by Frontier, and market based costs calculated using a methodology more aligned with actual market costs, is significantly less than the difference calculated using Frontier's modelled market costs. This issue is discussed later in this submission.

IPART has indicated that the requested 'discretion' would provide the regulator with greater 'flexibility'. AGL is of the view that flexibility of regulated pricing is of most value in fostering a competitive market – that is to say, to ensure that the regulated price is able to adjust to account for cost pressures so that the regulated cap does not act as a barrier to competition. AGL notes in this respect the 'Relative Price Movement' methodology introduced by the South Australian regulator, ESCOSA. ESCOSA introduced this methodology in 2011 because:

> *it strikes an appropriate balance between the need to provide greater flexibility in setting standing contract prices, while ensuring that those customers that remain on the standing contract receive adequate price protection.*[2]

AGL suggests IPART should consider methodologies such as this when considering future developments in the regulated price process.

Recommended action: Limit price increase to pay for high-cost solar schemes

AGL notes that IPART is concerned to limit the increases attributable to the implementation of the solar incentive schemes. IPART has suggested that one means of doing so would be to require retailers to contribute to the costs of the Solar Bonus Scheme. AGL notes in this respect that:

- AGL, and other retailers, currently provide an additional rebate of up to 8 cents per kWh to customers with a feed in tariff in NSW. This additional payment has been offered by AGL for a number of reasons, and is in part, to make the customer a competitive offer for the value of the energy received by the retailer.   Thus the 'financial benefit' referred to by IPART is already recognised by the market and the rebate used to increase the competitiveness of retail solar offers. Consequently, a regulatory requirement aimed at addressing this 'financial benefit ' is not necessary, and any regulatory requirement for retailers to contribute this 'financial benefit' would most likely lead to the adjustment (or removal) of this market based offer.
- If retailers were *required* to provide this additional payment, AGL is of the view that this would result in costs that may need to be incorporated into the regulated cost stack.

AGL notes in this respect that since the release of the Draft Report the NSW Government has suspended the processing of new application under the state-based Solar Bonus Scheme for two months until completion of the Government's Solar Summit (Stage One). In addition, the Commonwealth Government announced a further reduction in the solar credit multiplier from 1 July 2011. These policy changes will likely have the effect of reducing pass-through costs of solar schemes to retail customers in future years, however at this stage the magnitude of that change is not known.

[2] ESCOSA, *Methodology for Setting Electricity Standing Contract Prices - Final Report*, August 2010, p.3

Energy purchase cost allowance

The Terms of Reference set out the methodology for calculating the Energy Purchase cost allowance as:

> *"The Energy Purchase Cost Allowance for each year must not be lower than the least cost mix of generating plant (based on those plants earning an economic return on their market value), including any plant that would be required to meet any regulatory obligation, (using generation technology that is available in the NEM for the relevant year/period), to efficiently meet each Standard Retail Supplier's forecast regulated load."*[3]

On this basis IPART has set the energy purchase cost allowance for 2011/12 and 2012/13 on the LRMC of generation for each of the Standard Retailer loads.

AGL notes in this respect that while IPART has asked for greater 'flexibility' in respect of determining the WEC, IPART has also recognised that:

> *As the LRMC is the cost at which new generation capacity is made available, the terms of reference ensure that the regulated retail price is sufficient to justify further investment in generation.*[4]

AGL remains of the view that the basis on which the TOR is premised is the correct one – namely that in ensuring the regulated WEC is not lower than the LRMC, IPART are providing a sustainable basis for ongoing investment, thereby ensuring long term security of supply.

As noted above, AGL is of the view that the Draft Report on the regulated Wholesale Energy Cost (***WEC***) does represent a reasonable result and will ensure that competition for retail customers remains extremely robust in NSW over the relevant period. However, AGL has some concerns with the methodology employed by IPART to determine both the LRMC and the market based costs. It is important to recognise that the difference between the LRMC and the market based costs appropriately calculated is significantly lower than that modelled by Frontier.

Long Run Marginal Cost Methodology

AGL supports the continued use of the LRMC in setting the wholesale energy cost component of the regulated tariff in all jurisdictions. AGL does however have some concerns with selected input assumptions used in the calculation of the LRMC for Standard Retailers regulated loads.

LRMC Input Data

AGL notes that the LRMC draft decision is based on ACIL's updated capital, fuel and operating and maintenance costs used by the QCA in its draft decision[5] (***ACIL QCA Data***). AGL is of the view that the input assumptions published by AEMO as part of the 2010 National Transmission Network Development Plan (***2010 NTNDP Data***) represent the most appropriate source of data for the purpose of updating the energy cost allowance.

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[3] Ibid. p.101
[4] Ibid. p.7
[5] Queensland Competition Authority, *Draft Decision Benchmark Retail Cost Index for Electricity: 2011-12*, December 2010. p. 7 -8

In choosing a publicly available data source for the cost and operating input assumptions for generation IPART considered both the ACIL QCA Data and the 2010 NTNDP Data. In Box 3.1 IPART specifically addresses the question '*Why aren't the input costs used for AEMO's modelling sufficient for updating the energy cost allowance?*'. The reasons stated are:

- *The modelling provides 5 scenarios (or 'states of the world') to 2030, and there is a wide range in many of the input costs associated across the scenarios.*
- *As with any scenario modelling, the NTNDP modelling was not intended to identify the most likely generation costs in each year of the modelling period. Rather it was intended for use in 'what if' analysis, to test the transmission network in different ways.*

AGL notes that while the work involved the composition of several scenarios, the report prepared by ACIL[6] setting out the supply assumptions for each scenario clearly identified a 'central' set of capital cost data that forms a base case with corresponding assumptions for other input data.

In addition, the data inputs for the NTNDP were widely consulted with industry. This consultation process was designed to provide assumptions for what is considered by industry to be the most likely inputs (i.e. generation costs) over the modelling period. IPART argues that contrasting views published by industry related to capital and fuel costs support the use of the QCA Data, however AGL suggests that this range of costs highlights the importance of using peer reviewed data agreed by industry such as the 2010 NTNDP.

AGL has provided a more detailed discussion of the use of the 2010 NTNDP Data in Appendix A.

Market based costs

As noted in AGL's submission to IPART's 2010 Determination:

> *"AGL does not believe that the energy purchase costs currently modelled by Frontier are in any way representative of the efficient costs of a retailer supplying a regulated load in NSW, and therefore do not accord with the ToR".*[7]

AGL remains concerned by the approach taken by Frontier to estimate the market-based costs in the Draft Report, and suggests there are a number of issues with this approach which result in an under-estimation of a retailer's efficient market costs.

AGL set out a number of its concerns about the methodology in our submission to the 2010 Determination[8] and in this submission further discusses these issues, which again appear to manifest themselves in Frontier's results not according with actual market data and therefore not according with the costs likely to be incurred by a prudent retailer.

<u>Rationale for modelled prices not supported</u>

AGL understands that market costs have been determined using the methodology applied in the 2010 Determination. In that Determination IPART accepted Frontier's advice to use modelled electricity prices to determine market-based costs for efficient retailers. AGL's submission to the 2010 Determination supported the use of market data as a more accurate representation of actual retailer costs than modelled prices.

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[6] ACIL Tasman, *Preparation of energy market modelling data for the Energy White Paper, Supply Assumptions Report*, (Prepared for AEMO/DRET - 13 September 2010)
[7] AGL Energy Ltd., *AGL Response to the Independent Pricing and Regulatory Tribunal Review of regulated retail tariffs and charges for electricity 2010 – 2013, Draft Determination,* 8 February 2010, p.4.
[8] Ibid. p 6 – 10.

In the 2011 Draft Report IPART accepts Frontier's advice that the benefits of using modelled forward price data as making it easier for IPART to:

- Understand the drivers of changes in energy costs; and
- Assess any cost pass through applications

While AGL acknowledges this approach may offer some benefit to the regulator, AGL does not believe this outweighs the benefits achieved by using published market prices which reflect the actual prices paid by retailers when buying electricity. This is particularly relevant to an annual review in which all the prices which apply to the relevant period (ie: 2011/12) have been traded between participants in the market at the published price.

AGL also notes in this respect that IPART's assertion as to the benefit of being able to 'understand the drivers of changes' in energy costs can only have merit where the modelled price reflects reality. In order to realise this benefit to the analytical process, the modelled outcomes need to align with those observed in the market.

AGL understands IPART will not be revisiting its methodology in relation to determining market based costs for this annual review. Notwithstanding this position, AGL is of the view that it is important to raise concerns with the modelled results.

Significant shifts in Frontier's modelled costs for FY2012

AGL points out the significant difference in the modelled costs for 2011/12 which were the output of Frontier's model in 2010, compared to that in 2011. The outputs are shown below.

We note Frontier has not provided stakeholders with any detail in respect of the contract prices used in its modelling, beyond a statement as to the average pool price. Stakeholders must therefore infer the flat contract price that has been used in Frontier's modelling.

Table 1 – Average NSW pool price ($/MWh, real $2010/11) Extract from Frontier Economics, Figure 10.

	FY 2012	FY 2013
2011 Annual Review	$36.70	$45.41
2010 Determination	$46.78	$48.27

As shown in the table, Frontier's modelled costs have decreased by $10/MWh for FY 2012 between 2010 to 2011. Frontier states that the primary reason for the change in prices as reduced NSW peak demand level being assumed. It is unclear the level of contribution from other changes to input assumptions identified. For example, Frontier state that "the market is arguably more competitive due to Delta Electricity being effectively split following the NSW Energy Reform"[9], however there is no detailed discussion as to how this has been translated into a change in the market cost.

AGL assumes that one of the perceived benefits of a modelled price is that it produces stable outcomes as the input assumptions are controllable. AGL views such significant shifts in the modelled price from one year to the next again calling into question the validity of using modelled prices, and reiterates its view that a more robust approach would be the reliance on market prices.

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[9] Frontier Economics, *Energy costs – annual review for 2011/12 and 2012/13. A Draft Report prepared for IPART*, April 2011. p. 31

Frontier's results vs actual prices

AGL is again concerned the spot price outputs in Frontier's model do not accord with historical spot prices over the past few years. In fact, as shown below, Frontier's modelled spot prices are below the average actual spot price for most years, including being 17% below the most recent year of 2009/10. As noted in AGL's submission to the 2010 Draft Determination, Frontier's models are configured such that a low spot price will give rise to a low contract price, which then gives rise to a low volatility allowance, which do not fully reflect the costs incurred by a prudent retailer.

Table 2 - Actual vs modelled average spot prices

Fin Year	Ave Pool Price (Nominal)	2012 FE Pool Price ($10/11)	Ave Pool Price diff to Frontier 2012 price (%)
FY00/01	37.69	36.7	-3%
FY01/02	34.76		6%
FY02/03	32.91		12%
FY03/04	32.37		13%
FY04/05	39.33		-7%
FY05/06	37.24		-1%
FY06/07	58.72		-38%
FY07/08	41.66		-12%
FY08/09	38.86		-6%
FY09/10	44.19		-17%

Difference in results when using market prices

Other regulators in the NEM have generally accepted that in meeting the demand of its small customers, all prudent retailers hedge their expected load over time and will therefore be exposed to various contract prices over this period. AGL has maintained that a retailer's efficient costs should be determined by reference to the costs incurred by a retailer acquiring hedges over a period of time.

Frontier has continued with a methodology premised on a 'point in time', and has compared its modelled results with a published market price on a specific date. The appropriate comparison is with a flat contract price over an extended period.

As shown below, Frontier's modelled results for a flat contract are similar to the market price published on 10th March 2011, but are significantly different to the average published market prices averaged over the past 2 years.

Table 3 - Comparison of Frontier's contract price with market prices

	FY 2012
Contract price (average spot x 5% premium)	$38.85
D-Cypha flat contract price (10/3/11)	$36.83
2 year average D-Cypha flat contract price (June 2009 – March 2011)	$44.42

If Frontier were to use the a rolling average of the D-Cypha price in its model, AGL would expect that its market based costs would increase significantly. In an attempt to quantify the likely difference, AGL has sought to simulate a methodology more aligned with that adopted by the QCA. The results are shown in Appendix B.

Inflation Assumption

AGL note that IPART has used forecast inflation assumptions of 2.7%for 2011/12 and 3.0% for 2012/13[10]. AGL requests further clarification from IPART regarding the process used to update inflation forecasts assumed in the 2010 Determination (i.e. IPART used a forecast inflation of 2.4% for 2010/11 and actual inflation for March 2010 – March 2011 was 2.9%[11]) and updating the forecasts in the Draft Report prior to the release of the final decisions in mid-June 2011.

WACC

AGL is pleased to see that IPART has maintained it's approach of setting a separate generation and retail WACC for Draft Decision. However, AGL remains concerned that the methodology used by IPART is undertaken in isolation to other inputs used in determining costs such as the LRMC of generation. The result is that the proposed generation and retail WACC do not accurately reflect the circumstance of the businesses in question. AGL has set out detailed concerns in previous submissions to IPART[12] in relation to issues such as:

- Equity beta assumptions are considered too low, in particular for a stand-alone generation business;
- Gamma assumptions do not appear to recognise the use of foreign debt in funding electricity generation projects; and
- Debt margin approach.

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[10] IPART, *Changes in Regulated Electricity Retail Prices from 1 July 2011- Electricity Draft Repor*t, April 2011. p.12

[11] Australian Bureau of Statistics, 6401.0 - Consumer Price Index, Australia, March 2010, *CPI, All groups index numbers and percentage changes, Weighted average of eight capital cities, Percentage Change (Mar 2009 to Mar 2010)*. ,

[12] AGL Energy Ltd., *AGL Response to the Independent Pricing and Regulatory Tribunal, Review of regulated retail tariffs and charges for electricity 2010-2013, Draft Methodology Paper*, 23 September 2009. p.30-33

AGL has specific concerns with some of the updates to the WACC in the Draft Report:

- The sample of securities used to set the debt margin does not accurately represent the debt costs for electricity generation projects or efficient retail businesses. For example, electricity generation projects are often developed by independent power producers (IPP) which do not have access to the debt described in the sample. AGL suggests that if IPART is reluctant to change the methodology for estimating the debt margin then the sample could be adjusted to better reflect the range of debt funding costs in the electricity industry; and
- AGL considers that the assumed debt raising cost of 12.5 basis points in the Draft Report is at the low end of the range expected for debt transactions in the electricity sector. AGL assumes that this is influenced by the funding source being bond markets which typically have lower transaction costs than other bank debt facilities. AGL suggests that if other sources of debt were considered debt raising costs would be higher.

Carbon price assumption

AGL is firmly of the view that the introduction of a carbon price mechanism is the most effective policy to address carbon dioxide emissions in the Australian economy. In combination with complementary policies such as the Renewable Energy Target, AGL supports passing of legislation as soon as practical in order to avoid continuing uncertainty for investors in the electricity sector.

However, AGL has concerns with the way in which the proposed carbon market has been considered in Frontier's modelling.

Inconsistent with IPART position on the CPRS Deferral Pass-through Application

AGL notes that IPART has adopted the following approach in respect of the treatment of a carbon price in its relevant determinations:

- In the 2010 Determination, IPART assumed that the CPRS would commence on 1 July 2011. It made this assumption on the basis of the policy position of the Federal Government at the time of the 2010 Determination;
- In the Draft Report, IPART has considered the application of Energy Australia and Country Energy for a cost pass through premised on the delay to the CPRS from 1 July 2011. IPART has provided a draft opinion to the effect that the "*deferral did not involve an Applicable Law coming into operation or being amended or revoked*"[13]. IPART has stated that "*A decision made by any Authority is only directed at decisions that affect legal rights and obligations. This does not include the government's policy decision to defer the CPRS Bill.*"[14]
- In respect of the 2011 annual review in its Draft Report, IPART has assumed that:
    - There will be a carbon price in the future. It appears to have premised this assumption on the basis of the existing policy position of the current Federal Government; and

[13] IPART, *Changes in Regulated Electricity Retail Prices from 1 July 2011- Electricity Draft Report*, April 2011. p.54
[14] Ibid. p.54

- That this carbon price will be implemented not on 1 July 2012 as per the current Federal Government's policy position, but from 2013/14. The basis for this assumption is not clear.

AGL is concerned by the inconsistency in approach being applied by IPART in respect of assumptions pertaining to the introduction of a carbon price. AGL is of the view that:

- The appropriate approach to the pass through application was effectively determined at the time IPART included an assumption on the carbon price in the 2010 Determination on the basis of the policy position. As a policy position underpinned that assumption in the forward analysis for the 2010/11 regulated price, then a change to that policy position (manifested in a decision of Parliament to permit the draft bill to lapse) must be sufficient grounds on which to trigger a cost pass through application and adjustment.
- It is open to IPART to decide not to include an assumption on the introduction of a carbon price in the 2011 Annual Review until it becomes legislated. AGL believes this is the most appropriate approach at this time. However, if IPART does include this assumption at this time on the basis of a policy position, then a change to that policy position must be considered capable of supporting a cost pass through application.
- IPART's assumption in respect of the introduction of a carbon price until 2013/14 does not have appropriate foundation. If IPART is to continue to include an assumption on the basis of the policy position, then the assumption should reflect the policy position, unless there is a robust and tangible reason to do otherwise.

Impacts of carbon price assumption

AGL notes that the assumption on the carbon price is very important as it impacts a number of components of the ultimate regulated price. AGL has some concerns that the impact of the carbon price does suggest an inconsistency within Frontier's model:

- The inclusion of a carbon price from 2013/14 does not have any impact on the 'black' LRMC price. This suggests to AGL that Frontier are using a model which effectively determines the appropriate build for a single year, rather than for a longer period of time (ie multi-year);
- The inclusion of a carbon price does suppress the LRET cost of compliance in the current determination period. The carbon price assumption reduces the LRMC of RET compliance costs over the longer term and this reduction is amortised into 2011/12 and 2012/13 costs. This suggests to AGL that Frontier are using a multi-year model, contrary to that used in the black LRMC model; and
- The NGAC cost of compliance is set at zero. IPART note that "even if we assume that the scheme continues to operate past 2013, a carbon price and higher gas generation output will ensure that enough certificates are created at zero cost"[15]. This also suggests that Frontier are using a multi-year LRMC model in respect of the GGAS scheme.

These issues are discussed in further detail in the section below.

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[15] Ibid. p.39

Green energy cost allowances

AGL notes that since the 2010/11 Determination there has been a significant increase in costs associated with green energy schemes. This is primarily due to the significant growth in the uptake of small-scale renewable electricity generation and the pass-through of costs from Commonwealth Government incentives schemes.

Large-scale Renewable Energy Target (LRET)

LRMC is appropriate for LRET compliance costs

AGL supports the use of a LRMC methodology for assessing the compliance costs associated with the LRET. AGL believes this is the most appropriate methodology given retailers of scale servicing a small customer load will invariably source a significant portion of their RECs through long term PPAs with new entrant build renewable generation. Further, the LRMC provides a stable and predictable forecast of the long term LGC price, which is particularly important in a regulated pricing process given the sensitivity to government policy that has been observable in the market price.

Frontier underestimates LRMC of LGC

AGL is concerned that the LRMC calculation presented by Frontier Economics and accepted by IPART in the Draft Report is below what we would expect for the LRMC of meeting the LRET compliance requirement for a retailer.

In line with AGL's submission to the 2010 Draft Determination, AGL is concerned that:

- Frontier are using a multi-year model, which appears to be a different approach to that adopted in respect of the 'black' LRMC; and
- Frontier appears to be assuming that renewable projects are able to build and operate without securing a sufficient stream of revenue in each year of the project – ie they are able to realise all the benefits at the optimal time, rather than the need to produce and sell RECs in each year of the project.

AGL raised concerns with this modelling approach in respect of the 2010 Determination, and remains concerned by this. As noted previously, the LRMC must be modelled to reflect individual year pricing for the period of the price determination, as a retailer will be required to comply with the target in each individual year.

Greenhouse Gas Abatement Scheme

AGL is again concerned and surprised that IPART has calculated a zero cost for retailers of meeting their GGAS targets. AGL is of the view that compliance with the GGAS represents a real and ongoing cost for retailers, and therefore a zero cost represents neither a realistic view of the LRMC of compliance or a 'market view'. Setting mandatory retailer compliance costs at zero when retailers face ongoing costs reduces competitiveness of the NSW electricity market.

IPART's proposed zero compliance cost fails to recognise the long term nature of GGAS projects – many of these projects were (and are still) funded on the basis of long-term power purchase agreements (PPAs) for the electricity generated and NGACs created under the GGAS. These agreements were put in place at the project commencement and are in place until the scheme targets finished (i.e. 2021) or a transition to a Federal carbon price mechanism. For example, AGL operates 7 low-emission electricity generation projects[16] accredited under GGAS that were commissioned after the scheme was first announced, and would not have proceeded without these long term PPAs. AGL notes that a recent speech by the (then) CEO and Tribunal Member of IPART, dated 29 April 2011, recognises this fact, stating :

> *Very often the prices paid for NGACs are not spot prices. Prices are included in longer term purchasing contracts, which are struck between the project developer and the compliance buyer. The decision to go ahead with an abatement project is usually based on the price that is negotiated in a multi-year purchase agreement with a buyer.*[17]

In attributing a 'zero' rate of recovery to the GGAS scheme, IPART are precluding retailers from recovering these costs. AGL notes that the existence of these costs was acknowledged in the same speech:

> *...there are compliance costs for retailers. These are made up of the cost of abatement (or what they pay for certificates) as well as the administrative costs which they face to successfully participate in the scheme.*[18]

And further,

> *The costs of these abatement activities are borne by the NSW electricity retailers, through their purchases of certificates. They then pass these compliance costs through to their customers. These are real costs that are paid for by customers, and it is important periodically to investigate the schemes to ensure that they provide benefits to society that exceed these costs*.[19]

AGL request that IPART review the modelling approach used to calculate retailers compliance cost for 2011/12.

GGAS Market Costs

As evidenced above, there are costs incurred by retailers in complying with the GGAS, which do not always accord with the spot price. However, the market price provides further transparent evidence as to the existence of this cost.

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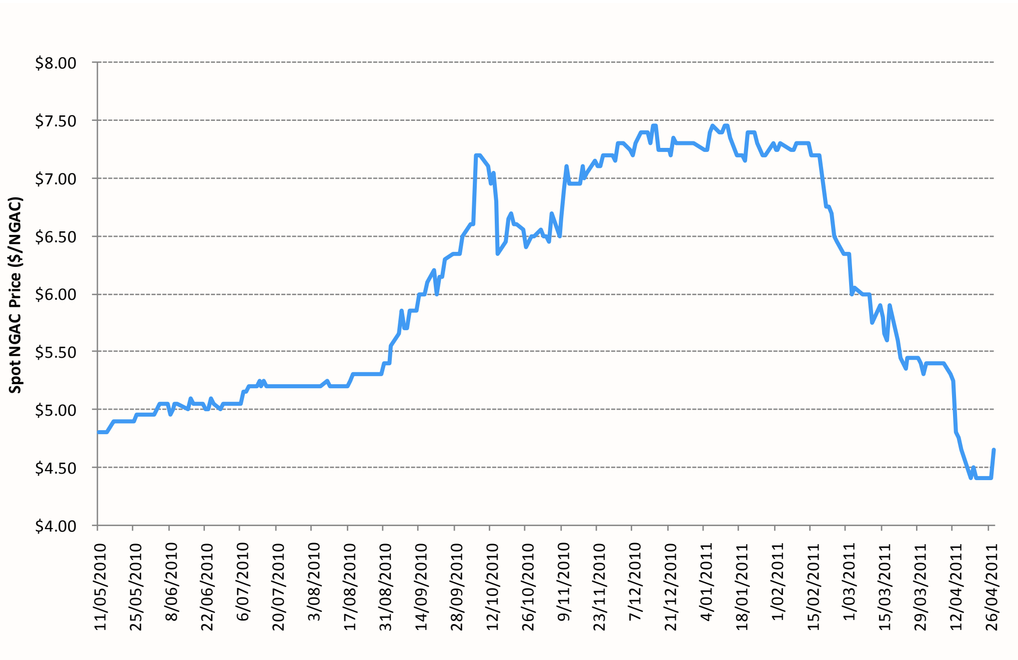
[16] AGL operates and manages the accreditation for 7 Category D Power Generation Projects i.e. generally generating systems commissioned after GGAS was first announced by the NSW Government in January 2002. These projects are the Coopers Cogeneration Plant, Symex Cogeneration Plant and Landfill Gas Generation Plants at Shoalhaven, Hobart, Glenorchy, Kincumber & Woy Woy.
[17] Cox, James PSM, *Progress with GGAS & ESS and implications for electricity pricing*, IPART, 29 April 2011, p.4.
[18] Ibid. p.3
[19] Ibid. p.4

Figure 1 shows NGAC market costs over the past 12 month period.

Figure 1 - NGAC Spot Prices (April 2010 – April 2011)



Source: ICAP 2011[20]

Frontier LRMC modelling approach

The modelled cost proposed by Frontier is obviously incorrect, as it bears no relationship with reality. AGL raised these concerns in respect of the 2010 Determination, and is very concerned to note that the same approach has been adopted this year, notwithstanding the obvious deficiencies in this approach.

IPART stated that based on the methodology used in the 2010 – 2013 Determination, even if it is assumed that the scheme continues past 2013:

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'….a carbon price and higher gas generation output will ensure that enough certificates are created at zero cost… with the increasing RET target there are more certificates created that can be utilised towards compliance with zero cost.'[21]

The explanation provided in the Draft Report and the Frontier Report[22] does not provide retailers with sufficient information on which to analyse the approach taken by Frontier. A number of key assumptions are unclear:

- Current NGAC supply-demand assumptions i.e. Frontier state that 'the existing surplus of NGACs, and the forecast ongoing production of NGACs, is more than enough to meet the GGAS target.
- Any assumption made regarding the compensation of NGAC holders by the Commonwealth Government upon the conclusion of GGAS and the introduction of a carbon price[23].

AGL believes that the results produced by Frontier suggests that Frontier's modelling is premised on:

- using a multi-year model, contrary to that used in the 'black' LRMC model;
- assuming that investors in gas fired plant are investing now with certainty as to a carbon price, rather than responding to the existing GGAS scheme; and
- an assumption that GGAS and a carbon price will co-exist. The GGAS will in all probability be discontinued as soon as a carbon scheme becomes legislated, as was the case under the proposed CPRS, GGAS would be discontinued.

Consequently, it is not reasonable to assume that a carbon price will reduce the cost of complying with the GGAS.

Cost pass through applications

AGL has some concerns with some of the issues raised in IPART's assessment of the cost pass-through applications submitted by the Standard Retailers.

CPRS Deferral event

As noted above, AGL is of the view that as the carbon price assumption was included on the basis of a policy decision, then a change to that policy decision must be considered sufficient to support a cost pass through application.

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[21] IPART, *Changes in Regulated Electricity Retail Prices from 1 July 2011- Electricity Draft Repor*t, April 2011 p.39
[22] Frontier Economics, *Energy costs – annual review for 2011/12 and 2012/13. A Draft Report prepared for IPART*, April 2011. p. 47
[23] On 2 September 2009 Minister for Climate Change and Water announced that $80 million would be provided to assist users of unused NGACs (http://www.climatechange.gov.au/~/media/Files/minister/previous%20minister/wong/2009/media-releases/September/mr20090902.pdf).

RET change event

LRET costs

IPART has used the same approach as the 2010 Determination in order to calculate the incremental costs of changes to the RET. In doing this IPART considers:

- The change from RET targets to LRET targets;
- Exclusion of small-scale renewable generation technologies from contributing to the target i.e. these technologies are eligible for certificate creation under the SRES.

The Draft Report points out that in considering the pass-through event that IPART has attempted to isolate the incremental costs associated with the specific regulatory event. AGL agrees with the general principle of holding modelling assumptions constant for the purpose of updating historical pricing decisions.

However, in the case of the Draft Report AGL has concerns that this results in LGC prices that are significantly below both the LRMC of a LGC and recent market prices which combined with the reduced RPP results in the negative allowance for LRET compliance costs. This modelled result is counter-intuitive, given that the purpose of the change to the legislation was to remove the suppressing effect the small scale renewables were having on the REC price. AGL notes that:

- Stakeholders now understand that in calculating the LRMC of a REC in the 2010 Determination, Frontier made assumptions as to what proportion of the target would be met by small scale renewable generation. This assumed volume was apparently removed from the overall target, and the LRMC of a REC calculated on the basis of the "remainder" of the target;
- Further, stakeholders now understand that the initial assumption (ie that in the 2010 Determination) made by Frontier in respect of the volume of small scale renewable generation was premised on a BCSE Report from 2005[24];
- AGL is of the view that if this information had been made available to stakeholders at the time of the 2010 Determination, stakeholders would have raised significant concern with such an assumption – the significant growth in small scale renewable generation between 2005 and 2010 was a matter of widespread comment and would have been remarked upon; and
- It now appears that it is this assumption as to small scale generation in the 2010 Determination that is significantly contributing to the peculiar result obtained through the Frontier modelling – whereby the change in the RET scheme, which had the purpose of removing the suppressing impact of small scale generation, is actually driving a decrease in the modelled LRMC of a REC.

This evidences a clear issue with transparency and process. While in general AGL agrees that it is appropriate to hold modelling assumptions consistent in a pass through exercise, where those assumptions are significant, and limited transparency or consultation has been permitted, there must be some sensible latitude exercised in the application of this principle.

Modelled LGC Prices below LGC Market Prices

The LGC prices proposed by Frontier are significantly below the LRMC of a LGC and market prices over the period.

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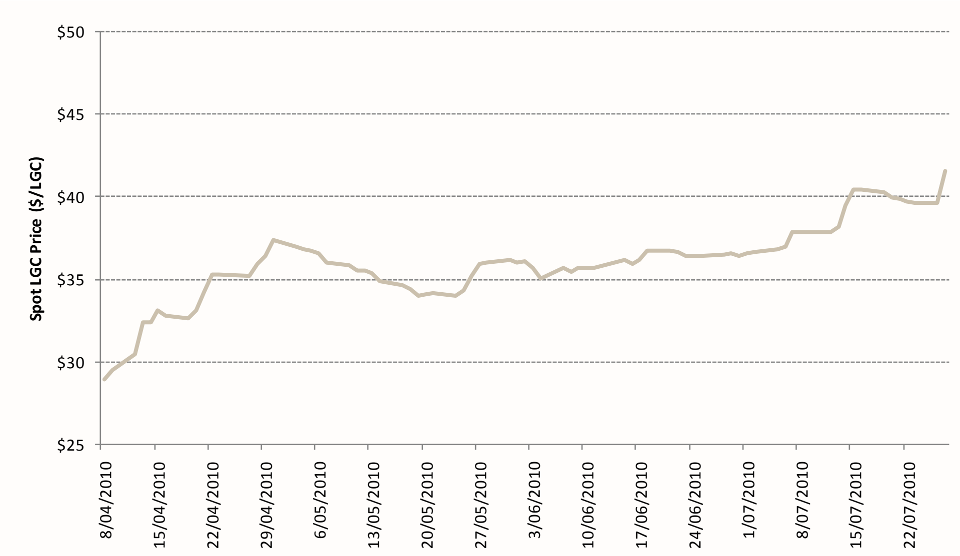
[24] Frontier Economics, *Cost pass-through application for LRET and SRES, A Draft Report prepared for IPART*. April 2011 p.12.

Figure 2 shows a steady rise in LGC spot prices from January to April 2011 above LGC prices presented by Frontier.

Figure 2 - Spot LGC Prices (Jan – April 2011)



Source: ICAP 2011[25]

IPART also notes that the Standard Retailers used a market based approach to justify LGC prices in their applications. Whilst AGL supports the LRMC approach for determining long term costs of compliance, in this context AGL believes that this comparison highlights the LGC cost for retailers, and that IPART's estimate significantly undermines a retailer's ability to recover compliance costs for this period.

Regulatory requirement for cost pass-through calculation methodology

IPART notes that the process for assessing the cost pass-through applications is set out in Schedule 4, clauses 3.1 and 4.2 of the 2010 Determination, and this was followed by IPART[26]. The 2010 Determination clause 3.3 *Factors for consideration by IPART* also sets out a range of issues which IPART need to take into account when making its determination in relation to the application.

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[26] IPART, *Changes in Regulated Electricity Retail Prices from 1 July 2011- Electricity Draft Repor*t, April 2011. p.43

AGL has reviewed these clauses and requests that IPART clarify the requirement to use the same methodology to assess the costs of the pass-through applications. From AGL's review the only relevant requirement appears to be clause 3.3 (e) which states:

> *the need to ensure that the Standard Retail Supplier only recovers any actual or likely increment in efficient costs under this clause 3 to the extent that such increment is solely as a consequence of a Pass Through Event;*

It could be argued that the only methodology which can ensure that the cost "increment is solely attributable to the Pass Through Event" is the same methodology used in the previous Determination with updated assumptions related to that Pass Through Event. However, AGL is concerned that the modelling approach used in the 2010 Determination combined with the relevant assumptions being updated has not resulted the "likely increment of efficient costs" referred to in clause 3.3 (e).

Appendix A – LRMC Capital Costs

As part of the preparation of the 2010 NTNDP ACIL Tasman prepared a report[27] setting out the supply assumptions for each NTNDP modelling scenario (**ACIL 2010 Report**). In setting out the supply assumptions for each scenario clearly ACIL identified a 'central' set of capital cost data that forms a base case with corresponding assumptions for other input data input data

ACIL 2010 Data most appropriate input data

In regards to the ACIL 2010 Report, AGL notes that:

- The Energy White Paper process was conducted by the AEMO/Commonwealth Government Department of Resources, Energy and Tourism (***DRET***), and ACIL spent a significant amount of time consulting on capital costs for generation, working in conjunction with the Electric Power Research Institute (***EPRI***) and receiving significant feedback from a diverse Stakeholder Reference Group (***SRG***) during the consultation period.
- The work focussed on developing several scenarios, and identifying the appropriate LRMC input data for each scenario. In the ACIL 2010 Report, ACIL details the various scenarios. AGL observes from this report that:
    - There is a 'central' set of capital cost assumptions, which form the basis of the capital cost analysis. These capital costs, referred to in the ACIL 2010 Report as the 'central estimates', are based on the EPRI data adjusted in line with the feedback from the SRG. These provide the reference point for all of the scenarios; and
    - Scenario 3 appears to be the scenario which captures the 'average' or 'medium' ground on the input parameters, with the other scenarios designed to reference to the 'average'. AGL is of the view this suggests the input data used in Scenario 3 would be appropriate for the purpose of the BRCI analysis.
- AGL understands that the findings in the report are generally supported by industry. The ACIL 2010 Report is available on AEMO's website.

<u>Capital Costs – clearly articulated 'central' case</u>

- The consultation process resulted in robust cost assumptions for a complete range of generation technologies for Australian conditions. As is clear from the ACIL 2010 Report, the EPRI capital cost data, as adjusted in consultation with the SRG, forms the basis of the ACIL 2010 Report.

    > *The capital costs of each technology covered in the study are derived from the data provided by EPRI with amendments as agreed by the Stakeholder Reference Group on 23 December 2009 and 30 April 2009*

- As noted above, the ACIL 2010 Report refers to a number of 'scenarios', with the central case for capital costs is that articulated in Table 18 at page 24 of the ACIL 2010 Report, titled 'Assumed Capital Costs – central estimates'. These capital cost are referred to as the 'average' capital costs, and the different capital cost scenarios are defined with reference to deviations from this 'average'.

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[27] ACIL Tasman, *Preparation of energy market modelling data for the Energy White Paper, Supply Assumptions Report*, (Prepared for AEMO/DRET - 13 September 2010)

- On this basis, AGL believes it is clear that the 'central' or 'average' capital costs articulated in Table 18 of the ACIL 2010 Report is the most appropriate capital cost data to be used for the purpose of the Draft Decision. AGL would ask for a detailed explanation from ACIL as to why these 'central estimates' of capital costs are not appropriate in the event ACIL does not use these capital costs.

Other input data – Scenario 3 data presents more robust basis for 'base case'

- AGL observes from Tables 12, 13 and 14 on pages 18-20 of the ACIL 2010 Report, that Scenario 3 appears to be premised on a set of inputs that are described as 'average' and/or 'medium', thereby suggesting this presents a scenario analogous to a 'base case'.

Appendix B – Alternative Market Based Cost Model

AGL has established an alternate model which seeks to model an energy cost price in a manner more aligned to the QCA's approach, whereby a rolling average of the contract price is used as a basis for a market based energy purchase cost. This modelling has been performed with the purpose of providing a point of comparison with that produced by Frontier, rather than with the purpose of asserting a definitive alternative result.

AGL used the following inputs in its modelling exercise:

- the actual 2009/10 spot trace;
- the actual half hourly aggregated 2009 regulated load, adjusted for load control (using assumptions as to the controlled load volume, but ensuring that the load factor was aligned with the load used by Frontier in its modelling);
- the actual NSW contract prices, layered in over a 2 year period; and
- the same hedging strategy used by the QCA in its modelling[28].

AGL's model delivered results between $55-59/MWh, with the variation depending on the volatility in the pool price trace. AGL notes in this respect that the 2009/10 year had abnormally high amounts of VoLL pricing. This results in a lower EPC than would be delivered in a normal year. AGL sought to exclude the impact of 10 hours of VoLL as a means of demonstrating the likely variance, and this suggested a variation of up to $4/MWh.

[28] For a description of the hedging strategy see ACIL Tasman, *Calculation of Energy Costs for the 2011-12 BRCI*, 16 December 2010, p. 33