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**Mr Nathan Petrus**

**Director, Pricing and Analysis**

**Essential Services Commission of South Australia**

**Level 8, 50 Pirie Street**

14 June 2012

Dear Nathan,

**Re. Special circumstances review of SA Electricity Standing Contract Price Determination**

I refer to the letter and attachment from the Essential Services Commission of South Australia (***the Commission***) dated 14 May 2012 in relation to AGL SA's application for a "special circumstances" review.

## 1. Introduction

The Commission has indicated that it has two significant methodological issues with AGL's application, namely:

- the appropriate average carbon intensity (ACI) used to calculate the carbon cost; and
- the retail margin on the carbon costs arising under the Clean Energy Act.

It is vitally important to recognise that AGL's application is designed to adjust the tolerance cap under the RPM approach, and is not designed to set a specific price. As the tolerance cap provides a 'safety net', it should reflect parameters which are at a reasonable upper bound of the likely range of outcomes. Similarly, the tolerance floor reflects a reasonable lower bound of outcomes, and in this instance, is not being adjusted.

This letter responds to the Commission's preliminary views on these two matters.

## 2. Average carbon intensity factor

### 2.1. <u>NEM ACI is the most appropriate intensity for a retail cap</u>

AGL has proposed that an average carbon intensity (ACI) for the NEM be used to calculate the carbon costs incorporated in the RPM tolerance band cap. The Commission's preliminary view is that to be consistent with the approach used to set the wholesale energy cost (WEC) on a 'standalone' basis, an SA ACI published by the Australian Energy Market Operator (AEMO) should be used.

AGL remains of the view that using a NEM ACI is the most appropriate basis on which to adjust the tolerance band cap for the introduction of a carbon price. In the different jurisdictions where AGL operates under retail electricity price regulation we have consistently advocated that using a NEM ACI represents a simple and transparent approach to calculate the carbon cost exposure that retailers are exposed to in the OTC markets. While individual retailers might have higher or lower cost exposures depending on their risk management strategies, a carbon cost based on the NEM ACI is a publicly acknowledged instrument that retailers can use to manage their risk.

AGL consider that using a NEM ACI to calculate the carbon cost would be in keeping with the approach taken by the Commission in setting the components of the tolerance band cap in the current rpice path. In setting the price path the Commission set the cap as a 'high case' scenario to ensure sufficient allowances were made in the price to ensure retailers could recover their costs and that competition in the market would be encouraged. AGL note that retail competition, as evidenced by customer churn, for small customers in SA is at its highest levels since the introduction of full retail contestability since 2003.

### 2.2. Issues with using the AEMO SA average generation intensity for standing contract prices

The AEMO SA ACI represents the carbon intensity of all generation in SA. In recent years the SA generation mix has changed with the increasing penetration of wind generation in the SA region driven by the Commonwealth Government's Large-scale Renewable Energy Target (LRET). The rules of generator price bidding and dispatch in the NEM mean that wind farms are dispatched whenever they are available to generate, subject to allowance for thermal generation minimum operating levels. This means that when generation from wind occurs it displaces the need for generation from scheduled generators bidding into the pool. This has had the effect of reducing the average generation carbon intensity of the the SA region.

AGL is concerned that using the AEMO SA ACI will underestimate the exposure of retailers to additional wholesale energy costs resulting from the introduction of a carbon price from 1 July 2012. AGL wish to highlight the following concerns to the Commission:

#### *2.2.1. Volatility of AEMO SA average carbon intensity*

AGL is concerned that the volatility of the AEMO SA ACI means that using an average of the daily AEMO SA ACI data could underestimate the costs that a retailer might be exposed to during the two remaining years of the price path.

As noted earlier, the level of wind generation in SA and the nature of the dispatch of this type of generation into the NEM means that the SA ACI is highly dependent on when the wind is blowing and these generators are available. The intermittent nature of this wind resource means that the SA ACI is much more volatile compared with the carbon intensity of other regions in the NEM, and the overall NEM itself. Table 2 sets out the mean and standard deviation of the daily carbon intensities for each region of the NEM from 19 June 2011 to 12 May 2012. A *Coefficient of Variation* has been calculated by dividing the standard deviation by the mean. This provides a description of the volatility of the intensity i.e. the variation of the values in the sample relative to the mean of the sample. The SA1 *Coefficient of Variation* is significantly higher than all the other regions, except TAS1.

**Table 1. AEMO Daily CDEII from 19 June 2011 to 12 May 2012**

| | Region | | | | | |
|---|---|---|---|---|---|---|
| | **NEM** | **NSW1** | **QLD1** | **SA1** | **TAS1** | **VIC1** |
| **Standard Deviation** | 0.024 | 0.025 | 0.009 | 0.101 | 0.054 | 0.040 |
| **Mean** | 0.920 | 0.929 | 0.823 | 0.554 | 0.129 | 1.266 |
| **Coefficient of Variation** | 0.026 | 0.027 | 0.011 | 0.183 | 0.422 | 0.032 |

Source: AEMO Carbon Dioxide Equivalent Intensity Index (CDEII) 19 June 2011 to 12 May 2012

In practice, this means that the level of carbon impact that a retailer could be exposed to in the spot market may fluctuate significantly over time. While some retailers may choose energy purchasing arrangements which can limit their exposure to price fluctuations managing this price risk will come at a premium. Therefore, setting the carbon cost allowance for two years of the price path, based on one year of generation data from a mix of plant highly dependent on intermittent wind generation, poses significant risks for retailers.

#### *2.2.2. SA generation carbon intensity reflects the impact of the LRET*

AGL note that the LRET liability for retailer compliance is calculated on a national basis and charges to customers reflect this approach i.e. the reduction in the SA carbon intensity has been underwritten by customers across the NEM.

### 2.3. Proposed adjustments to the Commission's preferred approach

As a result of the concerns discussed above, AGL suggest that the Commission consider the following amendments to their preferred approach:

#### *2.3.1. Use a NEM ACI to calculate the carbon cost*

As discussed above, AGL considers that using the SA ACI is not appropriate and remains of the view that using a NEM ACI is the simplest and most transparent basis on which to calculate the carbon cost. AGL has provided the Commission with a significant amount of information supporting this approach. If the Commission requires any further information or justification on the merits of this approach AGL would be happy to assist.

#### *2.3.2. Amend proposed SA average carbon intensity factor*

The AEMO SA ACI reflects the existing SA regional generation mix and potentially underestimates the carbon costs of retailers serving small customers in SA. AGL suggest the following amendment to the Commissions preferred approach to ensure that the carbon cost in the tolerance band is a cap:

- AGL proposes that an allowance for the volatility be made by setting the intensity at a higher level than the mean of the AEMO's daily intensity data. If the daily average intensities are assumed to be normally distributed then 68% of the daily SA ACI's should be within one standard deviation of the mean and 95% of the SA ACI's within two standard deviations. AGL suggests that adding one standard deviation to the mean would ensure that the ACI used is appropriate to represent a 'high case' consistent with the other components of the tolerance band cap.

- Based on the data presented in Table 1 this would result in an ACI of 0.655 t $CO_2$e/MWh (Sent out) to be included in the tolerance band cap.

2.4. [confidential text removed]

## 3. Retail margin

AGL has proposed that a 10% retail margin (ROM) be added onto the carbon costs in line with the Commission's approach in establishing the retail component where a retail margin of 10% is added to wholesale energy costs (WEC) and retail operating costs (ROC). The Commission's preliminary view is to exclude the retail margin allowance on the carbon costs as the carbon price, if appropriately passed through, will not affect the gross margin received per customer.

AGL considers that the carbon costs should include a ROM of 10% for the following reasons:

- In the 2010 review, the Commission determined that ROM should be set at 10% of WEC and ROC. If the ROM is excluded on the carbon costs, this will result in a ROM of less than 10%, which will not be consistent with the 2010 determination;

- The appropriate retail margin should be the net margin i.e. margin after taking into account retail operating costs (ROC). The appropriate measure of retail margin is not gross margin as described by the Commission. The introduction of carbon pricing will increase retailers' costs through higher prudential costs, additional administration expenses, IT systems changes and higher bad debt levels and bad debt rates. These increased costs have not been allowed for elsewhere;

- In its Draft Determination (April 2012, p53), IPART has "recalculated the allowance for the retail margin to provide a margin in dollar terms equal to 5.4% of the updated retail and network costs". The updated retail costs include carbon costs for the first time. IPART's approach will result in higher margins in dollar terms but an unchanged retail margin in % terms. AGL's proposal on ROM is consistent with this approach; and

- The current benchmark for ROM used in the tolerance cap is already less than the upper benchmark range of 10.5% assessed by LECG in its report to ESCOSA in 2010.

It may be argued that since the Commonwealth Government has provided increased welfare payments to some customers as compensation for the increase in costs due to carbon pricing, there should be no impact on bad debts. AGL is not convinced of this argument as these payments are not directly offset against customers' accounts so that customers are not restricited in terms of where they choose to spend these payments. The higher bill amounts are likely to lead to a higher level of bad debts on average and a greater number of customers facing hardship.

## 4. Summary

In summary:

- AGL is concerned that basis described by the Commission for using an AEMO SA ACI to set the carbon cost allowance in the tolerance band cap wil likely underestimate retailers carbon cost exposure in serving small customers in SA because:

  - The volatility of the SA ACI is significantly higher than other states or the overall NEM itself. The variation in the SA ACI would indicate that the level of carbon cost passed-through into the spot market could vary over time.

  - Setting the carbon cost allowance for two years of the price path, based on one year of generation data from a mix of plant highly dependent on intermittent wind generation, poses significant risks for retailers.

- AGL suggests that due to the issues identified with using the AEMO SA ACI, it would be more appropriate to set the carbon cost allowance in the cap based on the NEM ACI;

- If the Commission is not minded to use the NEM ACI, then Since the AEMO SA ACI is significantly affected by wind generation, and consequently the level of retailers carbon cost in the spot market could fluctuate, an adjustment should be added to the SA ACI to represent an appropriate amount for the tolerance band cap i.e. adjustment of 0.101 t $CO_2$e/MWh + 0.554 t $CO_2$e/MWh = 0.655 t $CO_2$e/MWh (Sent Out).

- The carbon pricing scheme will result in additional costs for retailers and this should be recognised through a maintenance of the current net retail margin.

If you have any queries in relation to this matter, please do not hesitate to contact me on (03) 8633 6207 or at elizabeth.molyneux@agl.com.au.

Yours sincerely,

Elizabeth Molyneux

Head of Regulated Pricing