

Electricity Supply Industry Planning Council

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PC2005/0037

17 September 2008

Dr J Tamblyn  
Chairman  
Australian Energy Market Commission  
Level 5,  
201 Elizabeth Street  
SYDNEY NSW 2000

Dear Dr Tamblyn,

**RE: MARKET COMPETITION IN SOUTH AUSTRALIA**

Following up on our discussion in relation to the above, I provide the following general comments for your consideration.

**THE WHOLESALE MARKET**

**GAS**

Whilst South Australia has an active retail market for gas sales, there is no formal underpinning wholesale market. In terms of pipeline capacity, the Planning Council understands that it is difficult for other parties to contract for capacity on the SEAGAS pipeline. Despite several ownership changes over time, the pipeline supplies the core users; Origin Energy, the Pelican Point power station owned by International Power Australia and the Torrens Island Power Station now owned by AGL. EPIC owns the Moomba to Adelaide pipeline and while access is reportedly possible, supply options are limited at this stage.

The result is that it is generally difficult for parties other than the incumbents with existing gas operations in South Australia to obtain easy access to wholesale gas.

## ELECTRICITY

### 1. Impacts last summer

The purchase of the Torrens Island Power station and effective control of the (small) Lonsdale and Angaston power stations provides AGL with a very strong position in the South Australian region. The following table shows the share of the controllable, bid plant in South Australia held by each participant last summer:

AGL	1325 MW	42%
International Power	723 MW	23%
Babcock and Brown	817 MW	26%
Origin	150 MW	5%
TRUenergy	150 MW	5%
TOTAL	3165 MW	

Murraylink's performance is limited by a significant number of network constraints in regional South Australia, Victoria and New South Wales. In particular, its impact on the market at times of peak demand is limited.

The Heywood interconnector was historically justified and used for importing power from the eastern states. With generation investment in South Australia, particularly in wind generation, the use of the Heywood interconnector is significantly changing. Attachment 1 provides detailed data on the use of the interconnectors over recent years showing that the Heywood interconnector is now constrained for far less hours than experienced in the past and that net imports into South Australia are now very low.

While the actual volume of net imports has fallen and constraints only apply for a shorter number of hours, the value within those hours is large. Since new constraint equations were introduced at the end of 2007, the Heywood interconnector has a maximum import capability of around 350 MW under high load conditions and with little or no wind generation in the Southeast of SA. Under actual dispatch conditions the effective capacity can often be only half that level. This has limited competition in the SA region during the 2007/08 summer such that \$10,000/MWh prices were experienced more frequently. AGL, in particular, appeared to be able to bid high prices with impunity when demand exceeded around 2,700 MW.

### 2. The Future

Origin Energy is currently completing a further 126 MW gas turbine at Quarantine. Commissioning of the Hallett 1 and Lake Bonney stage 2 wind farms is now complete, commissioning of the Snowtown wind farm is almost complete and

Clements Gap and Hallett 2 wind farms are under construction. This additional generation will tend to build on the trend toward reduced imports and higher exports over the next few years. Beyond that, the high level of interest in further wind farm generation in South Australia is likely to lead to more South Australian exports driven by renewable energy targets and emissions trading. This may, however, be offset by potential new loads in South Australia.

### 3. Interconnector upgrades

The Planning Council has been undertaking analysis in-house and working with consultants, ElectraNet and VENCORP to identify the cost and performance of a number of potential stages of interconnector upgrades. The network topology is complex and at this stage we have not identified a cost effective upgrade option. The work is ongoing and we hope to be able to publish information on potentially viable options by the end of the year. The Planning Council expects that upgrades may become more economically attractive in the future under a new regime reflecting carbon emissions constraints and renewable energy targets. The justification of an interconnector upgrade might also be aided by the consideration of any competition benefits.

### 4. Longer term competition concerns

The most recent summer saw an exercise of pricing power in the South Australian wholesale electricity market. One would expect a market response and for that pricing power to be eroded away over the next few years by new entrants. There are concerns in the current environment, however, that:

- the current financial market situation coupled with the current uncertainty in energy markets has thinned the ranks of potential new entrants.
- we may have reached an impasse in the South Australian market that is similar to that in many regions of New Zealand. New entry in the wholesale market may be limited by the need to manage risk by having access to sufficient customer load to manage risk. Conversely, entry to the retail market may be limited by the need to manage the energy price risk in a market where traded financial instruments are known to be illiquid.

#### **RETAIL PRICE REGULATION ARRANGEMENTS**

In the past, retail regulation has provided a three year price path with some (limited) pass through arrangements. The price determination by the Essential Services Commission of South Australia has been informed by advice from consultants and the ESIPC on:

- the load profile of relevant customers;
- the cost of building a contract portfolio to supply that profile; and
- the cost of the mix of new entrant plant required to match that load profile.

This allowed ESCOSA to take a view as to what it would cost a prudent retailer to meet the load and to ensure that the prices permitted new entry investment. This approach sought, at the time of the determination, to look forward up to 4 years. In the case of the new entrant pricing, the net present value of long term costs need to be estimated.

In the near future, the estimation of these costs will become very difficult as a result of carbon policy and linkages to international fuel prices. Some of the current uncertainty should be resolved as Governments decide firm policy directions. However, predicting participant behaviour in the future will be increasingly difficult and will need to be undertaken in the face of some unprecedented market changes. One will, for example, need to estimate the likely cost of carbon, the cost of gas, cost of renewables etc and the response of customers to prices. In a more dynamic environment, one will also need to include the cost of finance including managing the new risks. It therefore seems likely that the current approach to retail price regulation will need to adapt to change and will need to become more responsive to market prices as they emerge.

Should a concentration of pricing power in the wholesale market persist, action may need to be taken to manage outcomes in those circumstances. Retail price regulation may not be the most effective instrument to apply to a wholesale market issue. Greater interconnection or improved inter-regional risk management instruments are the sort of approaches that could possibly be applied.

The number of participants in the South Australian retail market who are actively pursuing the business of small customers has also significantly reduced over the past one to two years. In fact, to our understanding only Origin is currently actively advertising and doorknocking for business in South Australia in competition to AGL. This is unfortunate and action might be warranted. The MCE's work program to deliver national consistency and, in particular, its work on developing a National Energy Customer Framework, should assist in this case by reducing barriers to entry for new retailers.

As always, I would be happy to discuss further details of the above issues with you or your staff at your convenience.

Yours sincerely,

David Swift  
CHIEF EXECUTIVE

## Attachment 1

**Historic Interconnector Flows**

Table 1 and table 2 (below) from our 2008 APR show the total energy imported and exported and the average flow rates for the Murraylink and Heywood interconnectors respectively. These figures have been calculated from half-hourly data for each financial year. Flows are measured at the regional boundary between South Australia and Victoria.

Historically, South Australia has been a significant net importer of electricity from the eastern states. Since late 2006 the level of imports have reduced and exports increased and the wholesale price in the State has fallen below that in Victoria. The total imports into South Australia in 2007-08 are the lowest on record and the total exports from the State are the highest on record. The drought, continued growth in demand and increasing output from wind farms have been significant contributing factors to this situation.

*Table -1 – Historic Murraylink Interconnector Flow*

Year	Total Imports (GWh)	Total Exports (GWh)	Import Average (MW)	Export Average (MW)
2002-03	210	12	87	2
2003-04	217	60	46	27
2004-05	305	38	46	22
2005-06	270	31	41	20
2006-07	87	156	30	33
2007-08 <sup>1</sup>	40	169	20	29
2007-08 pro-rata	41	174	20	29

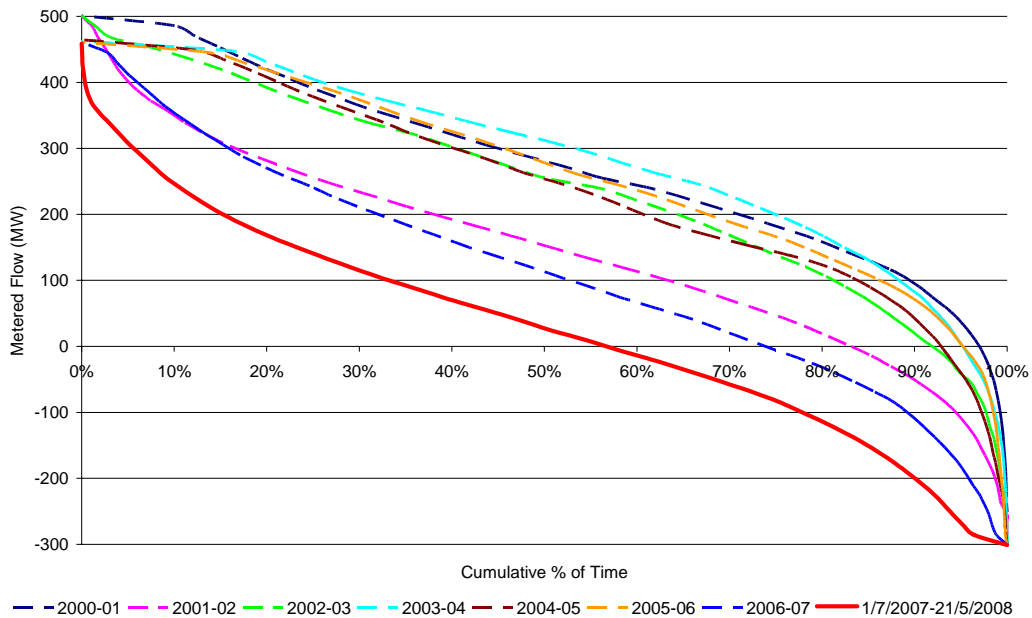
<sup>1</sup> This figure is for the period 1 July 2007 to 20 June 2008.

Table -2 – Historic Heywood Interconnector Flow

Year	Total Imports (GWh)	Total Exports (GWh)	Import Average (MW)	Export Average (MW)
1999-00	3,574	1	408	63
2000-01	2,472	18	291	69
2001-02	1,442	156	97	40
2002-03	2,046	78	130	48
2003-04	2,553	31	305	74
2004-05	2,214	59	272	95
2005-06	2,374	35	312	83
2006-07	1,245	235	203	102
2007-08 <sup>2</sup>	650	503	141	129
2007-08 pro-rata	668	517	141	129

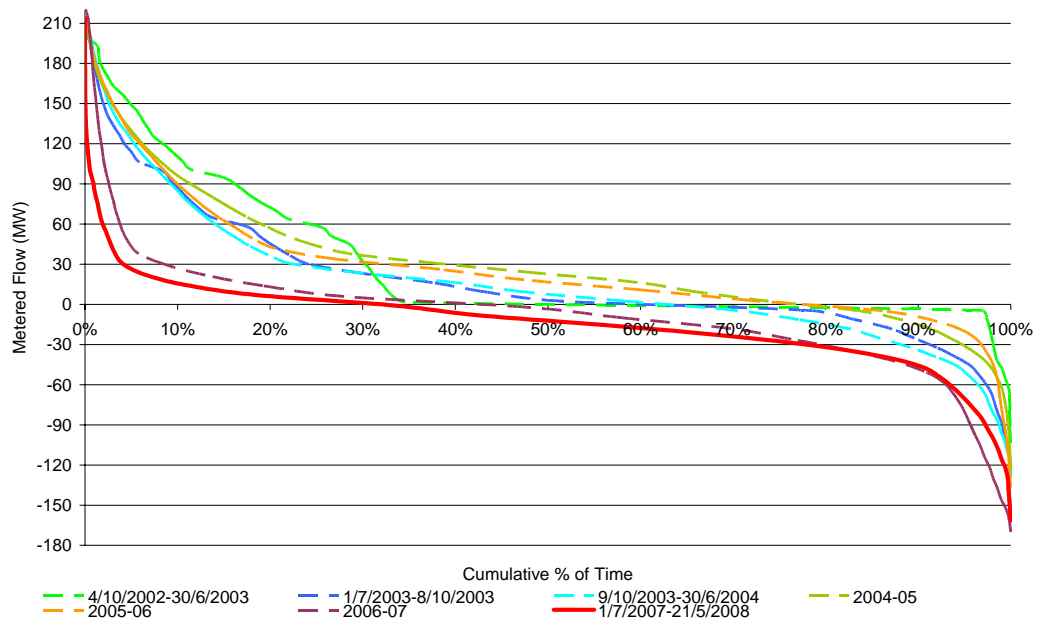
The flow duration curves for Murraylink and Heywood are shown in Figure 1 and Figure 2 respectively.

Figure -1 – Heywood Interconnector Flow Duration Curve since 2000-01



<sup>2</sup> This figure is for the period 1 July 2007 to 20 June 2008.

Figure Error! No text of specified style in document.-2 – Murraylink Interconnector Flow



Duration Curve

Broadly speaking, the level of imports and exports between South Australia and Victoria is represented by the area between the X-Axis and the curves. The area above the X-Axis represents imports from Victoria to South Australia and the area below the X-Axis represents exports from South Australia to Victoria. Using the areas as a rough guide, the change in the utilisation of the Heywood Interconnector is very clearly evident. Over the last couple of financial years the flow duration curve has shifted towards the origin of the axis and the "import area" is now basically the same size as the "export area". While the curve does not yet cross the X-Axis at the 50% line there is a difference in the maximum capacity of the interconnector in each direction. Also of note is the dramatic increase in the number of hours when the flow on the interconnector is at or near the South Australian export limit.

Table -3 – Heywood and Murraylink Performance

Year	% of year flow constrained		% of year import limit is at nominal capacity		% of year export limit is at nominal capacity		% of year import flow is at nominal capacity		% of year export flow is at nominal capacity	
	V-SA	M'Link	V-SA (460)	M'Link (200)	V-SA (300)	M'Link (200)	V-SA (460)	M'Link (200)	V-SA (460)	M'Link (200)
2003-04	17%	10%	64%	39%	45%	0%	11%	0%	0%	0%
2004-05	23%	12%	47%	46%	64%	0%	8%	0%	0%	0%
2005-06	18%	13%	50%	53%	49%	0%	8%	1%	0%	0%
2006-07	9%	23%	33%	19%	69%	0%	1%	1%	1%	0%
2007-08	6%	9%	7%	26%	74%	0%	0%	0%	1%	0%

As can be seen from Table 3Table -3, both interconnectors are often limited to power flow below their nominal capacity. For Murraylink, any benefits from the implementation of the fast runback schemes have been masked by increases in customer load in north-western Victoria and south-eastern South Australia which reduce its effective capability. For the Heywood interconnector, a number of factors have led to reduced import capability.