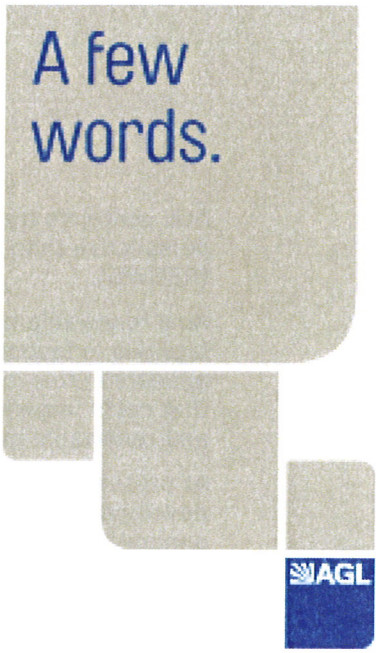
AGL Energy Limited
ABN: 74 115 061 375

Level 22, 120 Spencer Street
Melbourne VIC 3000

Locked Bag 14120 MCMC
Melbourne VIC 8001

T: 03 8633 6000
F: 03 8633 6002
www.agl.com.au




**Independent Market Operator**

**Attn: General Manager Development**

**via email: market.development@imowa.com.au**

**28 January 2011**

Dear Troy,

**Re: Calculation of the Capacity Value of Intermittent Generation – Methodology 1 (IMO) &**

**Calculation of the Capacity Value of Intermittent Generation - Methodology 2 (Griffin Energy)**

AGL Energy (AGL) welcomes the opportunity to make comment to the IMO in relation to the proposed rule impacting the capacity value of intermittent generation operating in the SWIS.

AGL is Australia's leading renewable energy developer with the largest privately owned/operated renewable portfolio. AGL is also one of Australia's largest retailers of electricity with over 3 million customers in Victoria, New South Wales, South Australia and Queensland.

AGL operates across the supply chain with investments in energy retailing, fossil fuelled electricity generation, renewable electricity generation, renewables and upstream gas extraction. The diversity of this portfolio has allowed AGL to develop a detailed understanding of the risks and opportunities presented by government policies that affect the energy sector.

As Australia's leading renewable energy company, AGL has committed more than $2bn to renewable generation since 2007. AGL is a unique participant in the renewable energy industry, with participation spanning four key aspects:

1. Large-scale developer – In August 2010, AGL entered in to a joint-venture agreement to build the Macarthur Wind Farm. With an installed capacity of 420MW, this wind farm is set to be the largest in the southern hemisphere.

2. Small-scale – AGL has partnered with Bovis Lend Lease to install First Solar thin-film solar PV panels made with cadmium telluride, a newer and more effective technology.

3. Australia's largest renewable energy retailer – In addition to offering a suite of Green Power accredited products, AGL has entered into long-term supply agreements to power the Victorian and South Australian desalination plants.

4. Occasional "technology push" participants – For example, equity and project level investments in the Australian geothermal industry.

AGL contends that the underlying issues need to be considered from a more holistic perspective than currently undertaken by the Renewable Energy Generation Working Group (REGWG).

As a renewable energy developer, AGL is looking to invest in new renewable generation facilities in favourable jurisdictions where policy makers encourage such investment. It appears in this instance some stakeholders have incentives (to maintain system reliability) that could impede such investments encouraging scheduled generation rather than cleaner and renewable generation.

At present the South West Interconnected System (SWIS) offers renewable generation developers good wind resource and an explicit recognition of the capacity value of its generation. This recognition is significant in it favourably differentiates the SWIS as the only region in Australia that provides this and as it influences where AGL would consider investing in renewable developments. It also assists with the better wind resource in off setting significant connection costs experienced in the SWIS region. In the absence of this benefit, AGL would review its deep pipeline of projects and consider investments in main land NEM, where developers co optimise wind resource, energy price and transmission access.

By directly reducing the Capacity Credit (CC) allocation to intermittent generation suppliers (Intermittents), one of two outcomes could likely follow:

1. Intermittents will be less viable to build in the SWIS, so the forecast demand (or capacity requirement) will be met by scheduled generation (or DSM); or

2. Intermittents will still be built in the SWIS (at higher cost), but would require an additional capital base to meet the same forecast demand /capacity requirement (as the Intermittents built will not produce sufficient capacity credits). This will lead to ineffective investment increasing the cost to end users, and potentially increase reliability beyond economic levels.

There is a low likelihood of an over-build of intermittent generation in the SWIS. Intermittents must be able to sell that energy to have a chance of being financed. There is a limit to the energy requirement /growth (and viable off takers) in the SWIS. So Intermittents will only be built to the degree that their energy can be viably sold into the market. Where no such case can be made, any deficit in capacity requirement will be met by facilities that can be financed by CC only – such as Open Cycle Gas Turbines (OCGTs) or Demand Side management (DSM).

If the policy position of the State is to attract its fair share of renewable investment into the SWIS (given the load in the SWIS is subsidising renewable investment via the MRET), it would be economically inefficient to allow the subsidy paid by users in the SWIS to flow to other jurisdictions where the investments are actually made. This would be the likely result if investment signals for Intermittents are distorted as proposed by Methodology 1.

Increasing the reserve margin would result in an increase in the capital base required to meet the forecast demand (the forecast demand will not change), which will in turn increase the cost to users and likely improve reliability. This is the same result as dot point 2 above – but it does not impact the investment signals in the SWIS. It would appear that by proposing Methodology 1, the IMO (and the Office of Energy) are comfortable with increasing the cost of energy to users in the SWIS while removing the SWIS's competitive position with regard to investment in renewables when this is not required.

AGL understands there is an alternative proposal from Griffin Energy (RC_2010_37). It appears to be simple, transparent and consistent with the current methodology, but better aligns CC allocation to wind farms and solar facilities with their contribution to demand in peak periods (summer). The alternative proposal (Methodology 1) is a completely different and quite complicated methodology which links fleets performance (mixing technologies) with individual facilities. As a developer AGL has concerns with this approach. AGL supports a technology independent approach that avoids trying to pick winners.

The System Management argument around reliability is unclear. This alternate Methodology 2 is an explicit mechanism to award CCs based on output during peak times. If an intermittent facility is not producing energy during these intervals, then its CC allocation will reduce. AGL considers this a more transparent concept.

Given the demand / supply position in the SWIS, for load shedding to occur, it is likely that, along with a low output day for the intermittent fleet, a large scheduled generator would have to be offline due to a forced outage. This is as uncontrollable by System Management as the wind is. While a scheduled generator is subject to capacity refunds – this does not prevent the load shedding in real time. (AGL notes the amount scheduled generators pay in refunds would possibly be more than offset by the intermittent generators not receiving CCs at 100% of their installed capacity. Further, most Intermittents would likely operate at near 100% of installed capacity much more often than many peaking facilities during the year).

If Intermittents that have a good coincidence with peak periods are built (such as in the SWIS as opposed to the NEM), then the average cost of energy during these periods will be lower, as it will be displacing peakers with very high SRMC of energy with renewables with very low SRMC of energy. It would appear that is would be more economically efficient from an allocative and productive perspective. While we clearly prefer Methodology 2, AGL does not consider there is a strong case to use the Load for Scheduled Generation (LSG) methodology. Incentivising intermittent output during the highest demand periods seems the most appropriate signal to send a potential developer.

The regulatory risk in the market would be lower with Methodology 2 code change. While the rule is changing, the change is fairly simple (and a whole new complex methodology is not being introduced). This has implications for existing facilities, but also on the developers who have outlayed dollars on a number of projects based on the current Rules. It also has implications on the relative benefits in investing in renewable in the SWIS rather than in other jurisdictions (affecting state policy outcomes).

AGL Energy is pleased to continue to provide comment on this code change. Should you wish to discuss this submission further, please do not hesitate to contact my self on (03) 8633 6138

Yours sincerely,

Mr. Chrys Chandraraj

Senior Commercial Manager, Power Development