AUSTRALIAN SENATE

SENATE SELECT COMMITTEE ON THE SCRUTINY OF NEW TAXES

11 August 2011

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Inquiry into a carbon tax

The following Question on Notice was taken at the public hearing on Friday 22 July 2011 in Sydney. The question was asked by Senator Madigan.

> **Senator MADIGAN:** I suppose what I am trying to get at is how much solar do you people have, how much wind power do you have and what is the breakup. How many kilowatts of power do you produce and from what sectors do you produce it? How much do you produce by wind?
> **Mr Nelson:** AGL's operated capacity is roughly 43 per cent, I think, renewable at the moment.
> **Senator MADIGAN:** How much wind?
> **Mr Nelson:** I have to take that on notice and come back to you.

Answer:

AGL's 2010 Sustainability Report states that the proportion of output from wind within the AGL operated portfolio of generation assets is 18% (p.49).

The report can be accessed here - http://2010.aglsustainability.com.au/Index.aspx

(Overleaf is p.49 of this report)

Carbon risk

Introduction to carbon risk

In the energy industry, to get an accurate picture of a company's greenhouse performance it is not enough to look solely at the total amount of greenhouse gas emitted from the company's operations. It is equally important to examine the greenhouse intensity of the assets managed and invested in by the company, and how the company's business strategy will contribute to the overall greenhouse intensity of Australia's economy into the future.

Approach

Australia's electricity supply sector is dominated by coal fired generation, providing some 81 percent of Australia's electricity (esaa 2010). Consequently, electricity generation accounts for over one third of greenhouse gas emissions in Australia. Consistent with its Greenhouse Gas Policy (August 2009), AGL has identified that placing a cost on greenhouse gas emissions will alter the economic incentives for electricity generation. In particular, lower intensity generation over time will become comparatively lower cost relative to coal fired generation, increasing its market share and contributing to the reduction of Australia's greenhouse gas emissions.

The greenhouse intensity of AGL's operated electricity generation portfolio compared to the market average is an important metric for measuring how well the organisation is positioned to manage the risk of regulatory intervention through a carbon price.

Vision for carbon risk: AGL's vision is to have an emissions intensity significantly lower than the market average.

Drivers: In addition to measuring the greenhouse intensity of generation as an indicator of future economic impacts on AGL, AGL also uses three approaches for measuring and communicating the greenhouse gas impact of its business: an Operational Footprint page 50, an Equity Footprint page 52 and an Energy Supply Footprint page 53.

Performance

The greenhouse intensity of electricity generated from AGL's operated assets compared to the market average is one way to determine how the portfolio is positioned to compete in an energy market that includes a price on carbon.

The greenhouse gas intensity of AGL's operated electricity generation assets decreased by 11% compared to 2008/09.

Greenhouse footprint

A summary of AGL's three greenhouse footprints is presented below. Further detail about each footprint is provided in the following pages.

Operational Footprint

The Operational Footprint covers the emissions from activities and assets that AGL operates. The Operational Footprint has decreased by 11 percent compared to 2008/09 to 1.490 $MtCO_2e$, primarily due to a decrease in electricity generation from Torrens Island Power Station.

2009/10	**1.489** $MtCO_2e$
2008/09	**1.677** $MtCO_2e$
2007/08	**2.030** $MtCO_2e$

Equity Footprint

The Equity Footprint sets out AGL's share (by percentage investment level) of the emissions from fully or partly owned entities. The Equity Footprint has increased to 7.8 $MtCO_2e$ due to an increase in emissions associated with AGL's stake in Loy Yang Power. However this increase has been largely offset by a decrease in the AGL Operational Footprint.

2009/10	**7.8** $MtCO_2e$
2008/09	**7.7** $MtCO_2e$
2007/08	**8.1** $MtCO_2e$

Energy Supply Footprint

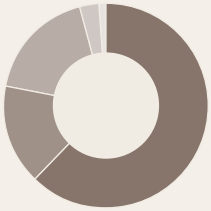
The Energy Supply Footprint estimates the greenhouse gas emissions associated with the use of electricity and gas by AGL customers. The Energy Supply Footprint has decreased slightly compared to 2008/09.

2009/10	**47.3** $MtCO_2e$
2008/09	**48.6** $MtCO_2e$
2007/08	**51.3** $MtCO_2e$

Note

AGL's Operational Footprint includes scope 1 and scope 2 emissions only. Scope 3 emissions were included in this footprint in previous Sustainability Reports, therefore historical emissions have been recalculated this year to include only scope 1 and scope 2 emissions.

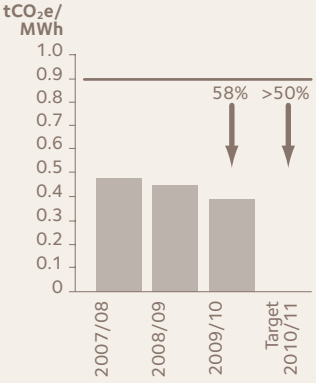
Output and intensity of AGL operated electricity generation assets[1]



Generation intensity 0.39 tCO_2e/MWh

Legend	%
Gas	63%
Hydro	16%
Wind	18%
Landfill gas, biomass and biogas	3%
Diesel	0.02%
Solar	0.003%
Total output	**3,589 GWh**

Intensity of AGL operated electricity generation assets[1]



Notes

1 These figures relate to the sent-out greenhouse gas emissions (scope 1 and scope 2) intensity of generation assets over which AGL has operational control, regardless of who owns the asset. Assets where AGL controls or has rights to the electricity output only are not included.

2 Australia-wide scope 2 greenhouse gas emissions intensity figure is from the National Greenhouse Accounts (NGA) Factors published by the Department of Climate Change and Energy Efficiency, July 2010 (latest estimate is 0.92 tCO_2e/MWh).