



27 February 2012

The Chairman
Australian Energy Market Commission
Level 16, 1 Margaret Street
SYDNEY NSW 2000

By email to submissions@aemc.gov.au

Dear Chairman,

Energy Market Arrangements for Electric and Natural Gas Vehicles

AGL Energy welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC) review related to *Energy Market Arrangements for Electric and Natural Gas Vehicles*.

As the leading investor in renewable energy and one of the largest energy retailers in Australia, AGL Energy (AGL) is well placed to comment on the review. AGL operates across the supply chain and has investments in coal-fired, gas-fired, renewable and embedded electricity generation. AGL is Australia's largest private owner, operator and developer of renewable generation in Australia with over 1,000 MW of renewable capacity. AGL is also a significant retailer of energy with over 3 million electricity and gas customers.

In AGL's earlier submission to the review, the AGL Applied Economic and Policy Research Working Paper: "Electric Vehicles in the NEM: energy market and policy implications" was provided as essential reading on the topic of electric vehicles. This Working Paper has subsequently been accepted for publication in *The Electricity Journal* – a multidisciplinary journal published in the US. The conclusions of this paper are relevant to many of the issues raised through the AEMC review of energy market arrangements for electric and natural gas vehicles:

- Electric vehicles should be treated in the same way as any other energy consuming appliance. AGL supports the AEMC's preliminary view that EV charging is the sale of electricity, and that EV charging agencies should therefore be subject to the National Energy Customer Framework (NECF). AGL is concerned that if electric vehicle market participants avoid regulatory compliance by selling electricity as an alternative product (e.g. "kilometres driven"), other businesses may similarly attempt to avoid regulatory compliance by rebranding electricity sales (e.g. air-conditioning could be sold as "reductions in degrees Celsius"). Electricity is an essential service and all participants in the market should be subject to regulatory frameworks which provide for consumer protections in this context.
- Energy sources for electric vehicles (EVs) should not be mandated: As a result of existing clean energy policies, the emissions from an electric vehicle in 2020 will be less than half those of a standard Australian vehicle (e.g. Holden Commodore) – 10 and 23 kg CO₂e per 100 km travelled respectively. Based upon this analysis, there is no reason why the generation source for electric vehicles should be mandated. Requiring EVs to use green energy could also be difficult to enforce in practice. It would require an acceptance that EVs should be treated as different from other appliances using the grid and may require potentially expensive sub-metering. The

application of this requirement might be complicated in households that already purchase some renewable energy, or that generate their own renewable energy by, say, using solar PV.

The introduction of time-of-use (ToU) pricing for residential customers is critical if electric vehicles are to be adopted successfully. In particular, cost-reflective critical peak prices should be facilitated so that consumers will be able to determine what price they are prepared to pay for 'convenience' charging. In addition, ToU pricing allows technology providers to offer innovative solutions allowing automation of this economic decision of the EV driver.

- AGL does not support mandated metering arrangements established solely for electric vehicles. Sub-metering with an off-market NMI may be an easier and cheaper outcome for an EV customer, where desired, although this should be on an opt-in basis, not mandated.

Should you have any questions in relation to this submission, please contact me at tanelson@agl.com.au or on (02) 9921 2516.

Yours sincerely,



Tim Nelson
Head of Economic Policy and Sustainability