

MCE

Ministerial Council on Energy

CHAIR

The Hon Martin Ferguson AM MP

Minister for Resources and Energy

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RECEIVED

28 JUL 2011

B11/1429

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

25 JUL 2011

Dear Mr Pierce

The Ministerial Council on Energy (MCE) has agreed to request the Australian Energy Market Commission (AEMC) to provide advice to the MCE on issues relating to the Australian energy markets which may arise from the potential increased uptake of electric and natural gas vehicles in Australia.

The detailed Request for Advice is attached. We expect this work to be conducted in line with Stage 3 of the review *Demand-Side Participation in the National Electricity Market*, and we look forward to receiving your advice by mid 2012.

This letter together with the attachments will be published and available on the MCE website (www.mce.gov.au).

Should you have any further enquiries, please contact Ms Kristen Palmer, Manager, MCE Secretariat, on (02) 6213 6107.

Yours sincerely


Martin Ferguson

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MCE Chair

The Hon Martin Ferguson AM MP
Chair – Ministerial Council on Energy
PO Box 6022
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CANBERRA ACT 2600

REQUEST FOR ADVICE**BACKGROUND**

1. The Ministerial Council on Energy (MCE) has agreed to request the Australian Energy Market Commission (AEMC) to conduct a high level investigation into energy market barriers to the entry of electric vehicles (EVs) and natural gas vehicles (NGVs).
2. The MCE recognises the potential for EVs and NGVs to be an important part of Australia's future transport sector and notes the importance of ensuring Australia's energy markets are ready to support the potential large-scale adoption of these technologies.
3. The MCE notes that a number of EV and NGV related trials and jurisdictional programs are already underway, including: the Victorian Government's *Electric Vehicle Trial*; the Queensland Government's development of an *Electric Vehicle Roadmap*; and the Australian Government's *Smart Grid Smart City*.
4. Pursuant to Section 6(b) of the *Australian Energy Market Commission Establishment Act 2004* (SA) the MCE may request the AEMC to provide advice.
5. Participating jurisdictions under the National Electricity Law (NEL) and the National Gas Law (NGL) have agreed to the following Request for Advice for the AEMC.

REQUEST

6. The MCE requests the AEMC to provide advice on energy market barriers to the entry of EVs and NGVs into Australia's transport sector (the Advice).
7. The Advice should take into account and build on existing EV and NGV work streams by specifically providing advice on key barriers within Australia's energy market framework to the economically efficient uptake of these technologies. The technological, environmental and economic aspects of EVs and NGVs are not expected to be considered, unless the AEMC considers necessary.
8. The advice should be in the context of the National Electricity Objective (NEO) and the National Gas Objective (NGO). The Advice should highlight conditions that will enable Australia's energy markets to support the adoption of EVs and NGVs in the most economically efficient manner possible. In doing so, investigations should provide observations in relation to potential cost and high level benefits of EV and NGV energy market infrastructure, under the National Electricity Rules and the National Gas Rules.
9. Due to separate legislation governing Australia's electricity and gas markets, EV and NGV market frameworks may be considered separately in the Advice and any overlapping energy market issues addressed in an additional section.
10. The MCE notes that the NEL is enacted in all jurisdictions except Western Australia and requests the AEMC to separately identify, if required, EV barriers within Western Australia's electricity market regulatory framework.

ISSUES TO BE ADDRESSED

Electric Vehicles

11. Australia's energy market frameworks have the potential to impact on the uptake of EVs in terms of distribution network access and regulatory arrangements.
12. Recharging of EVs could occur either through centralised EV recharging stations or at residential and commercial premises connected to the distribution network. Commercial and residential regulatory implications should therefore be considered in the Advice.
13. The Advice should take account of, but is not limited to, the following issues:
 - Potential EV usage patterns and penetration rates, including peak demand impacts;
 - Metering requirements, protocols and settlement including the ability of existing and projected metering arrangements to address EV mobility issues and support competition in energy and EV markets;
 - Network protection requirements. The AEMC is not expected to consider *vehicle* technical and safety standards which are being addressed separately;
 - Connection and new network infrastructure implications arising from EVs; and
 - Potential implications for tariff arrangements.

Natural Gas Vehicles

14. Two types of gas resources may be utilised by NGVs: compressed natural gas (CNG) and liquefied natural gas (LNG).
15. Australia's energy market frameworks thus have the potential to impact on the uptake of NGVs in terms of natural gas network access arrangements.
16. Refuelling of CNG vehicles could occur either through a central CNG refuelling station or at commercial or residential premises connected to the reticulated gas system. Commercial and residential regulatory implications should therefore be considered in the Advice.
17. LNG does not rely on distribution pipeline networks for delivery to users but bulk supply to LNG production facilities does utilise the gas transmission system and potential smaller scale facilities might in future utilise the distribution system. The Advice should consider whether network access arrangements have any material impact on the use of LNG powered NGVs.
18. The Advice should take account of, but is not limited to, the following issues:
 - Potential NGV usage patterns and penetration rates;
 - Metering and billing requirements for refuelling stations and residential premises;
 - Network balancing and protection requirements, and the adequacy of current gas market infrastructure to support NGV uptake. The AEMC is not expected to consider *vehicle* technical and safety standards;
 - Connection and new network infrastructure implications arising from NGVs; and
 - Potential implications for tariff arrangements.

CONSULTATION

19. The AEMC must prepare and publish draft Advice on the issues outlined in the Request for Advice, and invite public comment on the draft Advice. The AEMC must consider comments on the draft Advice in preparing the final Advice on the issues outlined in the Request for Advice.
20. In tasking the AEMC to undertake this review, the MCE notes the importance of engaging with the energy and transport sectors, and drawing upon relevant technical expertise and existing work being undertaken on the introduction of NGVs and EVs. In this regard, the AEMC is requested to consult with representatives from:
 - the Australian Energy Market Operator;
 - the Australian Energy Regulator;
 - industry groups and representatives from energy networks and energy retailers;
 - the Cooperative Research Centre for Advanced Automotive Technology; and
 - relevant Commonwealth and jurisdictional departments.

RECOMMENDATIONS

21. The Advice should identify barriers to entry in Australian energy markets for EVs and NGVs to the economically efficient uptake of these technologies which the AEMC believes requires greater investigation. In doing so the AEMC may propose future avenues for assessment and resolution of those issues.

MANAGEMENT OF CONFIDENTIAL INFORMATION

22. The AEMC must manage confidential information provided in accordance with the requirements of section 24 of the *AEMC Establishment Act 2004* (SA) and section 108 of the NEL.

DATE BY WHICH THE ADVICE IS DUE

The AEMC must provide a final copy of the Advice to the MCE by mid 2012. The AEMC must also publish a copy of the final Advice on its website two weeks after providing the Advice to the MCE.