



Mr John Pierce
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Australian Energy Market Commission
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**MODELLING OF CARBON EMISSION REDUCTION SCENARIOS IN THE
NATIONAL ELECTRICITY MARKET**

Dear Mr Pierce and Dr Marxsen

I am writing to you in my capacity as the Chair of the Senior Committee of Officials (SCO) on behalf of the COAG Energy Council (the Council).

I refer you to the Council's decision at its 4 December 2015 meeting to task the Australian Energy Market Commission (AEMC) and the Australian Energy Market Operator (AEMO) with modelling the effect of carbon abatement mechanisms on the electricity sector. A letter setting out the Terms of Reference for this work was provided by the Chair of the COAG Energy Council Senior Committee of Officials (SCO) on 18 February 2016. This letter is attached for your reference.

The original Terms of Reference asked AEMC and AEMO to carry out two tasks to be completed by the end of 2016. Under Task 1, the AEMC was requested to develop scenarios setting out alternative pathways for achieving a 28 per cent emission reduction target from 2005 levels by 2030, including:

- least cost abatement;
- staged generator exit, whereby generators withdraw from the market on the basis of their emissions intensity or publicly notified retirement dates; and
- accelerated deployment of renewable energy, whereby solar and wind energy is pushed into the market by economic or policy drivers.

Under Task 2, AEMO was asked to identify power system security and reliability impacts under the alternative emissions reductions pathways examined by the AEMC in Task 1.

At its 19 August 2016 meeting, the Council agreed that SCO will expand the Terms of Reference for AEMC and AEMO's work to include consideration of the economic and operational impacts of existing jurisdictional renewable energy targets.

My understanding of the various jurisdiction based targets suggest that, if achieved, they would deliver just under 40% renewables in the NEM in 2030. I note that the AEMC's current scenario of the extended LRET (to deliver the 28% reduction of emissions compared to 2005 levels) would deliver just over 40% renewables in the NEM. Of course, while the specific mechanisms individual jurisdictions might choose to use to deliver their renewable energy targets may differ from that used in the LRET, it seems to me that whatever mechanism design they do use would likely have a broadly equivalent effect.

Accordingly, I consider, at least at an aggregate level, the AEMC's and AEMO's current process will substantially deliver what the Council has requested.

It is possible that the actual delivery of renewable energy targets for some jurisdictions, such as Queensland and Victoria, may result in a geographical distribution of renewable energy that requires more finely calibrated modelling to assist Ministers' understanding of the relative costs of alternative emission reduction pathways and their implications for system security. It would, however be premature to commence that additional modelling at this point in time, prior to the relevant jurisdictions finalising their policy positions. When positions are sufficiently finalised, I will write to you commissioning further work, after appropriate consultation with the relevant jurisdictions. Of course this might mean that Council's deliberations of the precise effect of different jurisdiction-based targets might not take place until next year.

In the interim, the AEMC and AEMO are asked to draw qualitative inferences regarding how jurisdictional renewables policies, if achieved, could influence the results and system security. I also request that you provide high level advice on what additional modelling, if any, is required. This should be sufficient for the 2016 December Council meeting and I would be grateful if the report required for this meeting clearly outlined this.

If you would like to discuss any aspects of this request, please do not hesitate to call me.

Yours sincerely



Rob Heferen

Chair

COAG Energy Council Senior Committee of Officials

September 2016