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Energy Efficiency Advisory Team
COAG Energy Council

By email: smartappliances2019@sa.gov.au

Dear Advisory Team

The Australia Institute welcomes the opportunity to make a submission on the Smart Demand Response Capabilities for Selected Appliances Regulatory Impact Statement. We support mandatory compliance with AS/NZS 4755 for the nominated priority appliances, for all Demand Response Modes (DRM).

These 'smart' demand response (DR) standards have been developed through industry consultation, research and trials in Australia since the first Standards Committee EL-054 was established in 2005.

Energy Queensland's network companies have over 100,000 consumers enrolled in the PeakSmart air conditioner demand response program. This program demonstrates that AC DRM capabilities are effective, with over 58 MW of enrolled capacity, contributing to over 850 MW of demand response¹ capacity in Queensland, which is the equivalent of 'half a Liddell' power station, and helping that state through heatwaves over at least two consecutive summers.²

The Regulation Impact Statement (RIS) shows that mandatory compliance would have a positive benefit/cost impact in the order of \$2.3 – 4.3 billion NPV, with a likely value of almost \$3 billion.³ This equates to a net benefit of \$300 NPV per household in Australia. Households that participate directly in Virtual Power Plant or DR services would have direct additional financial benefits. This economic impact should be sufficient for COAG Energy Council to approve this regulation.

It is notable that the analysis does not include all of the value that could be delivered by the regulation. For example, demand response can compete in ancillary services markets in Australia and this value is not included.⁴ If these were included, the benefit/cost would be greater.

¹ Ergon/Energex (2018), *2018-19 Demand Management Plan*, p.10

² Potter (2018) 'Demand response worth half a Liddell to Energy Queensland', *Australian Financial Review* (7 April), p. 6

³ E3 (2019) *Consultation Paper: 'Smart' Demand Response Capabilities for Selected Appliances*, https://ris.pmc.gov.au/sites/default/files/posts/2019/08/smart_demand_response_capabilities_for_selected_appliances.pdf

⁴ *Ibid.*, p.31

The Australia Institute is a co-sponsor of the wholesale demand response rule change proposal currently before the Australian Energy Market Commission (AEMC).⁵ We are hopeful that in its final determination due in November 2019, the AEMC will make the decision to open up the National Electricity Market (NEM) to competition from wholesale demand response. If this happens then it will create significant demand for the DRM services enabled by this regulation. This will amplify the benefits of the smart appliances regulation.

COAG Energy Council has directed the Energy Security Board (ESB) to report on a post 2025 redesign of the NEM. In September 2019 the ESB published an issues paper which argues for the central role of DR in the future market design, in both improving reliability but also in lowering cost. For example, the ESB notes ‘without efficient use of demand response, the overall investment in generation capacity could be larger than required.’⁶ The smart appliances regulation is an important facilitator of progress towards a better 2025 market redesign.

COAG Energy Council should take into consideration broader energy and climate transition benefits. According to the International Energy Agency, a significant increase in DR is necessary in order for the world to deliver the Paris Agreement on climate. This is because demand response can maintain reliability at a low cost, whilst coal-fired power stations retire. In its *World Energy Outlook 2018*, the IEA calls demand response ‘the sleeping giant of system flexibility.’⁷

The RIS did not include economic analysis of the long-term policy benefit provided by demand response in relation to enabling the safe retirement of coal-fired power stations or meeting Australia’s Paris Agreement climate commitments. This would further increase the benefit-cost ratio of this regulation.

This ‘smart’ DR regulation is a necessary step in the modernisation and reform of the NEM, to meet the challenges of this century.

We are happy to provide further detail if required.

Regards,



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The Australia Institute

⁵ Public Interest Advocacy Centre, Total Environment Centre & The Australia Institute (2018), *Wholesale demand response energy market mechanism: rule change request*

⁶ COAG Energy Council (2019) *Energy Security Board Post 2025 Market Design Issues Paper*, p.18

⁷ International Energy Agency (2018) *World Energy Outlook 2018*, p.363