FCAI Response to COAG Equipment Energy Efficiency (E3) Committee Consultation Paper: 'Smart' Demand Response Capabilities for Selected Appliances



Federal Chamber of Automotive Industries Level 1, 59 Wentworth Avenue KINGSTON ACT 2604 Phone: +61 2 6229 8222 Facsimile: +61 2 6248 7673

Contacts: Mr Ashley Sanders, Technical Director 23<sup>rd</sup> September 2018

# SUMMARY

The Federal Chamber of Automotive Industries (FCAI) is the peak industry organisation representing the importers of passenger vehicles, light commercial vehicles and motorcycles in Australia. The FCAI welcomes the opportunity to comment on the COAG Equipment Energy Efficiency (E3) Committee Consultation Paper: 'Smart' Demand Response Capabilities for Selected Appliances.

The E3Consultation Paper consider that Australia's current market conditions do not encourage the majority of residential and small business consumers to participate in Demand Response arrangements with their energy providers and, consequently, increase the risk both current and future of challenges in controlling grid load and quality.

E3's Consultation Paper targets four types of electrical appliance, air conditioners water heaters, pool pump controllers and electric vehicle chargers. Unfortunately, the consultation paper has been developed without any participation from the vehicle supply or Electric Vehicle Supply Equipment (EVSE) industries and without consideration of the implications of interrupting electrical supply to an EV during a charge event. FCAI does not oppose Demand Response regulation for electrical appliances of convenience but does not agree that such regulation is justified for EVSE at this time.

The Consultation Paper offers three potential solutions as options.

- Option 1 Business as Usual (BAU) No New Regulations
- Option 2 Encourage Voluntary Adoption of Demand Responsive Appliances
- Option 3 Mandate the Presence of Demand Response Capabilities

The recommended option, Option 3, requires Electric Vehicle (EV) Charge/Discharge Controllers to comply with the unique Australian Standard AS/NZS 4755.

This recommended option was previously considered in 2013 and rejected at that time due in part to significant adverse feedback from Electric Vehicle market stakeholders due to:

- Non-alignment with existing international standards and conventions
- Barriers to competition in the Electric Vehicle Supply Equipment (EVSE) market and loss of choice for consumers
- Barrier to uptake of EVs in the market and loss of choice for consumers
- EVs may not resume charging following a Demand Respnse (DR) event, resulting in serious loss of amenity for owners
- EV risk to the energy grid is not an immediate problem

The issues raised in 2013 are largely unchanged and remain of significant concern to the FCAI members if Option 3 were to be implemented.

## CONCERNS

### Non-alignment with existing international standards and conventions

As a basic principle, to facilitate the adoption of new technology at lowest cost, the FCAI supports harmonisation with international regulations and standards.

Demand Response via AS/NZS 4755 is wholly unique to the Australian market and does not follow any of the internationally recognised standards currently used in the Electric Vehicle industry. In contrast, there are standards and protocols being developed and maintained internationally which automotive designs take into account. These include Open Charge Point Protocol (OCPP) which has become an internationally accepted convention for communication with EVSE and includes smart charging functionality. The International Electro Technical Committee (IEC) has developed IEC 15118 specifically for this purpose. It is our understanding that AS/NZS 4755 methodology is entirely different to and incompatible with OCPP and IEC 15118.

#### Barriers to competition in the EVSE market and loss of choice for consumers

It is FCAI's understanding that the vast majority of EVSE in offered in Australia are imported from overseas designed with a global market in mind and, as such, developed in accordance with international standards. Generally the EVSE does not control the charge event but rather responds to communications from the EV's on-board charge controller. To mandate AS/NZS 4755 would require changes to EVSE, the cost of which would be prohibitive for a market the size of Australia. This would result in EVSE supply being restricted with a consequent loss of consumer choice.

## Barrier to uptake of EVs in the market and loss of choice for consumers

In 2018, plug in EVs including Plug in Hybrid Electric Vehicle (PHEV) represented less that a quarter of one percent of the total new vehicle sales in Australia. EV penetration into the Australian market is slow moving and fragile. Any change to EVSE requirements which would add cost and limit EVSE availability and choice would have a knock on effect on the supply of EVs to the market and result in a reduction of choice for the Australian consumer.

## EVs may not resume charging following a DR event, resulting in serious loss of amenity for owners

It was previously advised that some of the EVs that were already in the Australian vehicle population will not resume charging following an interruption such as a DR event as described in the consultation materials. It is unclear whether new product currently being offered for sale or being developed for future release into the Australian market will include this functionality.

#### EV risk to the energy grid is not an immediate problem

The market for EVs globally remains small with the majority of countries boasting significant penetration achieving this with government incentives encouraging the uptake of EVs. The Australian market is proportionately even smaller mainly due to a lack of government policy designed to increase uptake. Plug in EVs represented less than 0.25% of new vehicle sales in 2018 and growth in the market is expected to remain slow at best in the absence of external factors being introduced for this purpose.

There is no clear evidence Suggesting that the EV market will grow rapidly or cause thy type of peak load problems caused by the unexpected surge in air conditioner sales in the late 1990 as mooted in the consultation paper.

Unique Australian requirements may act to limit the availability of next-generation EVs and EVSE in Australia and restrict the uptake of these new technologies by Australian consumer.

Recognising that peak demand is an important issue for future grid security and stability, FCAI recommends that government intervention in respect of demand response capability for EVs and EVSE take an internationally harmonized, globally consistent approach and is developed in conjunction with, and with the assistance of, the the FCAI and its members supplying and intending to supply EVs to the Australian market and domestic and international EVSE suppliers.