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Dear Mr Tutaan

### **EMO0022 – AEMC’s Issues Paper – Energy Market Arrangements for Electricity and Natural Gas Vehicles**

Ergon Energy Corporation Limited and Ergon Energy Queensland Pty Ltd, collectively referred to as Ergon Energy, appreciates the opportunity provided by the Australian Energy Market Commission (AEMC) to provide comments on the *Energy Market Arrangements for Electricity and Natural Gas Vehicles – Issues Paper* (the Issues Paper). This submission is provided by Ergon Energy in its capacity as a Distribution Network Service Provider (DNSP) and non-competing retailer in regional Queensland.

Ergon Energy has not addressed all of the questions in the Issues Paper, but rather provided high-level matters for consideration in relation to specific questions. These are discussed below:

- Question 1 assessing the take up of Electric Vehicles (EVs) – Ergon Energy is concerned that the penetration levels defined by AECOM are based on NSW and Victorian data. Ergon Energy therefore considers that the AEMC should note that AECOM's Report does not break the penetration levels into regional centres v major urban centres. This is a factor that is relevant for Ergon Energy given the geographic diversity of the Ergon Energy network.
- Question 2 – Cost of additional system peak demand - Ergon Energy notes that the costs associated with peak demand increase at a market level. Ergon Energy envisages that there may be issues at a local level independent of the market price with the increase in demand directly impacting the Low Voltage and Medium Voltage network necessitating network augmentation to support stressed assets. The magnitude of these costs should be performed on a network simulation v EV uptake and demographics analysis.
- Question 3 – Costs imposed by EVs on electricity markets – There is not a clear indication of load aggregators and the impacts they will have on electricity costs within their revenue streams. This will include the interaction between DNSP, retail and EV charger providers. Ergon Energy suggests that the interaction between DNSPs, retailers and EV charge providers is modelled to assess the costs imposed by EVs on electricity markets.
- Question 7 EV metering issues – Ergon Energy believes that EV charging should be via a single NMI multiple meter model. We do not support an embedded network framework that includes parent/child NMI relationships or a sub-metered solution.

- Question 9 Retail pricing and EVs - The sale of electricity should be dependant on the cost to provide that electricity rather than the purpose for which it is used. Selling electricity for EVs at different rates would only be appropriate if there were network and market benefits for such sale. Such benefits may include the capacity for the EV to be used as spinning reserve, help smooth renewables or grid support directly via V2G (vehicle to grid). If such network support can be correctly quantified there may be a case for independent EV tariffs. In all cases ensuring EV charging outside of peak time is paramount so the impacts of EVs do not drive peak demand increases. Customer access must also be considered such as emergency recharge requirements for customers whose only transport may be an EV.
- Question 10 Structure of retail pricing for EVs - The uptake of EVs will be dependent initially on the high capital cost of the EV. The running costs will be a secondary impact. Ergon Energy considers that Time of Use (TOU) pricing will have little impact on EV uptake as long as it provides the customer with choice of charging time vs costs. Most customer charging would be at home in the evening, so these customers can effectively be serviced by a TOU tariff offering emergency charging at peaks if necessary and low cost charging during off peak times.

Consideration should be given in the event that EVs are the only means of transport for a customer. There needs to be a mechanism for the customer to charge at any time regardless of price, either via the charger or via the meter. The customer should be provided this option especially in the event of an emergency. A higher tariff might be an appropriate signal to customers to disincentivise them from charging at peak periods.

Ergon Energy also notes that the AEMC should have regard for the fact that retail pricing is under the authority of the Jurisdictions. Jurisdictional policy will play a role in determining the structure of retail prices.

- Question 11 Network pricing and EVs – Ergon Energy considers that any sort of incentives built into the network pricing arrangements for EV, should be left up to the DNSP to determine. This is because it is the DNSP who is responsible for operating and managing peak demand on their own networks and EVs are expected to heavily impact last mile assets more so than directly impact on electricity markets. Assets that are expected to be impacted first are low voltage distribution, low voltage distribution transformers and medium voltage distribution.

Ergon Energy looks forward to providing continued assistance to the AEMC in its consultation on the Energy market arrangements for EVs and natural gas vehicles. Should you require additional information or wish to discuss any aspect of this submission, please do not hesitate to contact either myself on (07) 4092 9813 or Alena Christmas on (07) 3228 8272.

Yours sincerely

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