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STANDING COMMITTEE ON PLANNING, TRANSPORT, AND CITY SERVICES
Ms Jo Clay MLA (Chair), Ms Suzanne Orr MLA (Deputy Chair),
Mr Mark Parton MLA

Submission Cover Sheet

Inquiry into electric vehicle (EV) Adoption in the ACT

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Standing Committee on Planning,
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Inquiry into electric vehicle (EV) adoption in the ACT

Evoenergy

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Evoenergy is committed to supporting our customers as we work with the ACT Government and community to achieve net zero emissions by 2045. We are seeing an increase in the uptake of electric vehicles which must be underpinned by a strong electricity distribution network.

Evoenergy supports the mass adoption of electric vehicles (EV) and zero-emission vehicles (ZEV) in the ACT. As the electricity network infrastructure provider, Evoenergy welcomes a coordinated and collaborative approach to the roll out of charging infrastructure—both public and private – to ensure network and environmental impacts are minimised. A coordinated approach would also be in the long run interest of current and future EV and ZEV customers in the ACT.

Evoenergy welcomes the opportunity to provide input into this inquiry and is willing and able to provide further information on any matters arising from this submission or in relation to the ACT electricity network.

About Evoenergy

Evoenergy owns and operates the electricity network in the ACT and gas network in the ACT and surrounding regions, distributing energy to local residential and business customers. As the local gas and electricity distributor, we own, maintain and operate 4,720 kilometres of gas mains supplying nearly 160,000 gas customers and 2,120 kilometres of electricity lines supplying over 204,000 electricity customers.

Role of Evoenergy

Evoenergy manages the distribution of electricity and gas to its customers in the ACT and surrounding areas. Managing the network to provide safe and reliable energy involves:

- Maintenance on electricity and gas infrastructure
- Responding to outages and emergencies
- Inspecting trees located near network infrastructure in backyards, Namadgi National Park and nature reserves
- Connecting new customers.

Innovation and industry development

Mass adoption of EV and ZEV vehicles presents opportunities for market participants and research organisations to innovate and partner across the supply chain. One example is the current Australian Renewable Energy Agency (ARENA) funded realising electric vehicle-to-grid services (REVS) project which is led by ActewAGL Retail in partnership with ACT Government and Evoenergy. This project involves partners from fleet services in SG Fleet Group with smart booking technologies along with EV charging providers in JET Charge. The project is demonstrating EVs ability to provide ancillary services to the electricity network by discharging the car battery back to support the grid (a service called vehicle to grid (V2G)).

A second example is Evoenergy's participation in the ARENA funded EV Grid trial in collaboration with JET Charge and five distribution network service providers (DNSPs) across the ACT, Victoria and Tasmania. The trial aims to demonstrate dynamic management of EV charging using real-time electricity network capacity information. The funding for these projects is supported by contributions from all parties and as such has kickstarted a wave of innovative solutions from market participants and DNSPs along with critical assessment of existing

regulatory frameworks, which would otherwise not be possible.

Evoenergy expects EV charging to have a material impact on the ACT electricity network in the upcoming years. Evoenergy encourages strong collaboration between the EV industry, research institutions and electricity providers such as Evoenergy to facilitate and learn from innovative solutions. Post implementation findings from completed projects will inform our understanding to ensure regulatory frameworks and planning laws can adapt to enable technological change.

Role of ACT Government

The ACT Government has a key planning role to ensure equitable and accessible public charging infrastructure in the ACT. The ACT Government's recent policy announcement— *the 2022–30 Zero Emissions Vehicles (ZEVs) Strategy* has clear implications for the region's electricity network. The phase out of light internal combustion engine vehicles by 2035 will drive customer interest and uptake and we must ensure our electricity network is planned and managed accordingly. Charging infrastructure is a key pillar in the customer journey and adoption of EVs.

As a regulated network service provider, our funding is approved by the Australian Energy Regulator (AER) in five-year cycles. Our draft electricity network plan for the next five-year cycle commencing on 1 July 2024 is now open for community consultation until 30 September 2022.

Our proposed plan for expenditure is assessed for prudency and efficiency to ensure it is in the long term interest of our customers. Evoenergy factors in government policy announcements and the need for considerable network investment as part of our regulatory proposal process. The recent announcement about ZEV's will further inform our final proposal to the AER in January 2023.

Our customer centric regulatory environment requires long term planning; and at times legislative support for projects to ensure they can be embedded within network planning and investment cycles. Evoenergy is a willing and active participant in facilitating the roll-out of EV charging infrastructure in the ACT. We encourage legislating roll-out plans to assist our planning and streamline delivery of network infrastructure to support EV charging infrastructure and minimise costs and delays to customers.

Impact on the electricity network

Evoenergy is actively planning for increasing network peak demand that may result from co-incident EV charging which could put pressure on the grid. Consumer behaviour and lack of diversity of EV charges can contribute to traditional electricity network peaks. To effectively manage this change, Evoenergy must plan and invest appropriately to support adoption of EVs in the ACT. Evoenergy will need to be informed of EV developments and infrastructure needs ahead of time with capability and investment to avoid localised supply constraints. Additionally, EV charger technology should also be mandated to have 'smarts' to allow co-ordination such that management of EV loads can be future proofed.

To prepare for the expected uptake of EVs in the ACT, we have proposed changes to our network electricity tariff structure statement (TSS) for the upcoming 2024-29 regulatory period

as part of our draft plan. Evoenergy expects network augmentation will be required if mass EV charging occurs at times of the day when the ACT network typically experiences peaks in demand (i.e., evening periods in residential areas). This network augmentation will result in higher network costs. To provide fair and equitable network pricing to ACT residents, we intend to implement tariff reforms designed to reflect future network costs expected to accrue from EV charging while driving behavioural changes in electricity usage patterns to try and avoid critical peaks.

Evoenergy is partnering with other energy industry participants to learn more about grid integration of EVs. We are collaborating through research projects on industry risks, and consulting with technology providers on new innovations. This will help Evoenergy understand how we can best support the ACT community by planning and adapting our network to cater for increased electric vehicle uptake over the next 10 years.

While Evoenergy is currently part of a trial of V2G enabled fleets, the technology is not yet a viable option for most consumers. The cost of bi-directional EV charging can be prohibitive and have significant regulatory and accreditation hurdles, including compliance with Australian standards. These matters are being contemplated by technology providers and their vendors through innovative trials. As such, the pathway for commercialisation of this technology may still be a few years away and embedding any hardcoded requirement for these newer technologies could limit innovation and mass uptake. Evoenergy recommends that ACT Government closely monitors the progress of V2G technologies to align uptake with available technology that is commercially viable and safe.

Closing comments

Evoenergy is committed to continuing to provide safe and reliable energy to the Canberra region. We look forward to the outcomes of the inquiry and working with ACT Government as well as continuing to engage with our customers and community on how we effectively enable ZEVs to assist with the mitigation and adaption to the effects of climate change on our society and network. For further information on any of the above matters please contact Lauren Wachniewski, Strategic Communications Advisor via [redacted].