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INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE VEHICLES IN NSW

Organisation: Western Sydney Leadership Dialogue

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Parliamentary inquiry on infrastructure for electric and alternative energy source vehicles in NSW

Submission by the Western Sydney Leadership Dialogue

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Executive summary

The Western Sydney Leadership Dialogue (the Dialogue) welcomes the opportunity to contribute to the Committee on Transport and Infrastructure's inquiry into infrastructure for electric and alternative energy source vehicles in NSW. We commend the Minns Government for their commitment to working towards achieving the goals of the NSW Net Zero Plan.

Supporting and investing in the growth of electric and alternative energy source vehicles is important for Greater Western Sydney (GWS) for a wide range of reasons. These include the cost impacts on the community, progression towards meeting the goals of NSW Net Zero Plan, and the volume of freight and logistics activity in the region.

Most GWS residents are dependent on private vehicles for transport, live with long commutes and limited public transport connectivity. These households spend an average of \$3,076 annually on fuel, compared to those in the east of Sydney, who only pay \$1,731.¹ This could be reduced to less than \$800 per year for the average GWS resident², if an Electric Vehicle (EV) was used, even more so if the household had solar. The uptake continues to be hindered, however, by lack of charging and refueling infrastructure.

Sydney is not yet on track to meet its 2030 emissions targets³ so catalysing the uptake of sustainably powered vehicles in GWS will be critical for keeping this goal in sight. Considering that road transport accounts for 88% of emissions, it would be most efficient to target the highly-car dependent region that houses one-third of NSW's vehicles⁴, if we are serious about decarbonsation.

With the volume of logistics activity in GWS, the region is the logical test-site for the transition of freight vehicles from diesel to hydrogen. This, plus the region's geographical location and manufacturing capabilities presents an opportunity to turn GWS into a staging ground for the building/conversion of sustainable freight, as well as act as a rollout point for this mode of transport to also be used across regional NSW. This is a high-pollutant industry, this opportunity to reduce emissions and support several sectors in the region should not be overlooked.

¹ March 2025, Deloitte Western Sydney Economic Outlook, "<u>Charging ahead: Western Sydney's EV</u> <u>Future</u>"

² Ibid.

³ August 2022, Committee for Sydney, "*Decarbonising Sydney*"

⁴ 2021, ABS Census

About the Dialogue

The Dialogue is fiercely committed to enhancing the future of the Greater Western Sydney (GWS) region and has cultivated an extensive network of Partners from within the community, private, and public sectors who share this goal.

The GWS region is home to over half of Greater Sydney's population and functions as the third largest economy in Australia, and the infrastructure, or often the lack thereof, that makes up the region has direct implications for these Partners. Through research, events, and strategic partnerships, it aims to shape a prosperous future for the region.

Since its inception, the Dialogue has been an advocate for sensible, equitable, and transformative infrastructure for the residents of GWS alongside quality-of-life priorities.

Response to the Terms of Reference

(A) Funding and location of electric vehicle chargers or infrastructure for other potential energy fuel sources

1. The Dialogue is supportive of location targeted, grant-based government support on an ongoing basis, as part of a multilayered approach to reach the targeted EV uptake outcomes for consumers and industry.

Location targeted grants will support the rollout of EV charging infrastructure more widely than market-driven approaches alone. Access to this infrastructure is highly influential on people's decision to switch to this vehicle type. Lack of infrastructure access creates a significant barrier to market entry and stifles market demand, and this is being seen in many areas of Western Sydney.

The location of EV chargers to date has been largely driven by the market, with placement decisions being made based on commercial factors which works well for supporting existing, and new EV drivers in areas with high or obviously growing demand for charging infrastructure. However, it also creates the conditions for areas with low current or potential demand to remain in a cycle of low demand equals lack of infrastructure and vice versa.

While EV uptake in GWS has been growing, the continuation of this infrastructure versus demand cycle is evident, especially when compared to EV ownership rates of residents in the east of Sydney. Market demand is not growing fast enough in Western Sydney, resulting in unrealised cost benefits for residents and a significant challenge for NSW's decarbonisation goals.

The Dialogue supports the current NSW Government's effort to expand EV infrastructure across the region, particularly the Electric Vehicle Kerbside Chargers and Electric Vehicle Fast Chargers grants. We encourage future funding rounds under these schemes. We do, however, note the geographical restrictions of the Fast Chargers Grant, and encourage the government to strongly consider expanding the boundaries to the outer areas of GWS, such as the Macarthur region.

2. The expansion of EV infrastructure must be balanced to encourage increased uptake both privately and commercially

The importance of reducing the region's transport emissions cannot be understated, and commercial vehicles have a large role to play in this space. Positive actions in supporting government to achieve net zero targets and aligning with customer expectations have been taken by commercial stakeholders in GWS. Large logistics companies such as Woolworths are leaders in this space, committing to a complete transition of home delivery trucks to EVs by 2030 and exploring other low-emissions options, including electric trolley trucks. Greater investment in EV charging infrastructure, however, is needed to support a more rapid and widespread uptake. Lack of charging infrastructure has been cited as an ongoing challenge and barrier to the acceleration of the EV uptake, even for large businesses with enough capital to support independent transition. It should be expected that this is a much larger obstacle for SMEs. Ensuring consideration of commercial needs for this infrastructure is especially critical in GWS, which is a region with high rates of SMEs.

3. The NSW Government should consider the benefits of working with Distributed Network Service Providers (DNSPs) to improve the efficiency of infrastructure rollout in GWS.

Working with DNSPs such as Endeavour Energy, which own poles infrastructure, could accelerate the process as the DNSP can scale installation and distribute chargers more widely and efficiently. The core business functions of DNSPs will enable streamlining connection of electricity and installation, and smoother emergency and fault maintenance of chargers. Cost benefits will also likely be seen as this would enable bulk purchase of charger supplies.

Additionally, the cost and scale benefits of a DNSP supported rollout could allow the NSW Government to target lower socio-economic, semi-rural, high rental and/or dense locations with limited home charging capacity. This will work towards rebalancing the issues seen from market-driven placement in GWS, and ensure all customers have greater opportunity and encouragement to transition to EV use.

4. The Dialogue recommends a holistic and technology-agnostic approach for the NSW Government, given current trends and likely future tech pathways.

The rate of uptake of private EVs is driving a rapid rollout of charging infrastructure, which should be encouraged and supported wherever possible between state and local government and the private sector. For heavy vehicles, however, it is important that the government maintains a focus on the likely transition to hydrogen as the dominant fuel source for long-range heavy freight transport.

During a period of such rapid technological change, any decisions around new or retrofitted infrastructure should seek to de-risk technology investment choices as much as possible as a hedge against redundancy.

5. It is important that the NSW government maintains a focus on the likely transition to hydrogen as the dominant fuel source for long range heavy freight transport.

Green Hydrogen has been earmarked as a target sector for industry policy at both state and federal level. Hydrogen has a high energy to weight ratio and hydrogen cell

vehicles have a much shorter refuel time than battery charging, similar to that of petrol⁵. These are valuable qualities for the many time and weight sensitive jobs that require the use of heavy vehicles and make EVs less viable to bottom lines compared to those fueled by hydrogen.

6. Greater Western Sydney should be designated as the pilot region for the transition of freight vehicles from diesel to hydrogen.

With the concentration of nationally significant freight and logistics infrastructure in GWS, the region is the logical test-case for the transition of freight vehicles from diesel to hydrogen.

The NSW Government should be examining short term opportunities to pilot refueling infrastructure in GWS for early adopters of hydrogen for freight and passenger transport (as the most likely short-term customers for the fledgling hydrogen industry), while heavy industrial customers (such as steel and aluminum manufacturers) take longer to transition to green hydrogen.

7. Considerations for the protection of functional industrial land uses.

Industrial land in GWS is already under pressure of encroachment of other types of land uses. Additional factors need to be taken into consideration when deciding locations for charging and refueling large vehicles, such as freight trucks.

Some areas where freight vehicles frequent or congregate as a function of their operations, such as intermodal terminals will not be appropriate locations for recharging or refueling. This is largely due to space considerations and the otherwise short period that they would usually remain on site. Operators of these sites need to be heavily consulted about these decisions on a case-by-case basis to avoid considerable disruption to business.

(B) The viability of alternative energy sources for freight, heavy vehicles and other licensed vehicles in regional communities

No response.

⁵ July 2023, CSIRO, "Hydrogen vehicle refuelling infrastructure: priorities and opportunities for Australia"

(C) Use of existing infrastructure and measures to ensure a competitive market, including 'ring fencing' policies

8. Consideration should be given to how the NSW Government can work with Distributed network service providers (DNSPs) to scale infrastructure rollout while supporting a competitive market.

It adds an additional layer of complexity when third party operators install EV chargers. When this happens, they are performing a function that is well within the ability of DNSPs to provide and still need to work with DNSPs to complete vital functions.

There is an opportunity to reduce double handing and still maintain a competitive market by leveraging the existing knowledge, processes and infrastructure of local DNSPs for EV charging installation. For example, the NSW government could engage DNSPs, like Endeavour Energy in GWS, to procure, install and maintain charging infrastructure, and legislate the operation to be performed by a private, charge point operator. In this way the need to scale at speed can be balanced with meeting 'ring fencing' policies and keeping the market competitive.

9. The Dialogue recommends that the NSW Government identify opportunities to balance market competition with redundancy risk, where appropriate.

There is opportunity for the government to use procurement policy to hedge against technological redundancy risk while balancing the need for market competition. In transport, this could include procuring and managing bus batteries separately to vehicle procurement, or under an "as a service" contracting model.

10. Invest in mobile hydrogen refuelling solutions as an immediate action to support the growth of hydrogen vehicles.

Government should be examining short term opportunities to pilot refuelling infrastructure in GWS for early adopters of hydrogen for freight and passenger transport (as the most likely short-term customers for the fledgling hydrogen industry), while heavy industrial customers (such as steel and aluminium manufacturers) take longer to transition to green hydrogen.

While hydrogen transport infrastructure is in a start-up phase, there will be a prevalence of brand-specific refuelling facilities in pilot locations. This is to be encouraged; however, Government must avoid becoming locked into a single (or small set of) manufacturer(s).

As an interim measure, to support the early roll out of hydrogen-powered fleets and grow the customer base of the fledgling local hydrogen sector, mobile refuelling solutions, such as Smithfield-based ARCC's mobile refuelling trailer concept should be supported by government.

(D) Measures to ensure the transition of workers from affected industries and industry standards

11. Support the facilitation of formal relationships between GWS zero-emissions transport manufacturers and TAFE.

The Dialogue proposes that the government investigate methods to establish formal ties between NSW TAFE and leading zero-emissions transport manufacturers in GWS.

Through formalised partnership there is significant opportunity to support the transition to Net Zero, the industries which will enable the transition, and our vocational education system. The relationship between industry and training organisations is interlinked, with both benefitting from the success of the other.

We cannot afford a disjointed approach to connecting skills, workers and industry with the high speed of decarbonisation that is required to meet NSW's Net Zero goals. Solidifying this connection will create a strong foundation to continue this work.

(E) Any other related matters

11. The NSW Government must leverage the opportunity to support GWS manufacturers as part of the infrastructure for electric and alternative energy source vehicles.

This process will require reliance on multiple manufacturers and technologies at scale, creating competition at both ends of the supply chain.

For EV chargers, the NSW Government should specify a minimum percentage of the deployed chargers to be locally sourced. This will stimulate the local manufacturing market and workforce and ensure that those chargers are deployed at scale and in line with national and state metering regulations.

When considering large and alternative energy vehicles, the government absolutely should be looking to leverage existing manufacturing expertise and infrastructure within the region.

12. The NSW Government should look to include consideration of investment in locally developed charging infrastructure innovations.

This approach not only supports "local solutions for local problems" but also fosters technologies and programs that deliver broader community benefits and advance the state's net zero targets.

The work carried out at Sydney Motorsport Park (SMSP) is a good example of local GWS initiatives which should be supported in this area. SMSP received Australia's first and only sustainability accreditation from the global motorsport's governing body in

2024. In part, this was attributed to reductions in and reuse of consumables, including repurposing cooking and motor oil as biodiesel⁶.

The venue also provides Hyundai fast chargers that are open to users of the facility and brand-inclusive, allowing guests and users of the track to charge any model of EV. Significantly, investigations are being made into establishing a large-scale battery which could serve the dual purpose of supporting activities at SMSP and improving power supply to nearby homes and businesses.

Not only do these types of initiatives and innovations further the sustainability goals of the organisation, but they also contribute practical benefits, including reach into the wider local community. The Dialogue also believes it is worthwhile to seek opportunities to support or invest in local innovative organisations as it is in alignment with other strategic government plans, including the NSW Innovation Blueprint 2035 and the NSW Industry Policy.

⁶ November 2024, Destination NSW, "<u>Australia-first sustainability accreditation for Sydney Motorsport</u> <u>Park</u>"