

ELECTRIFY 2515

LET'S BE AUSTRALIA'S FIRST ELECTRIC COMMUNITY

Submission to Wollongong City Council draft [EVCI Policy](#)

Electrify 2515 team 3 March 2023

Executive Summary

Councils can play a vital role in steering the transition of electric vehicle (EV) uptake in the community. With Wollongong LGA home to the fastest growing ownership of EVs outside of Sydney, Wollongong City WCC (WCC) has the support of the community to fully embrace a comprehensive EVCI policy, as well as the responsibility to do so. Publicly visible and accessible EVCI is essential to combat range anxiety, equity issues and EV uptake. Well-designed EVCI that encourages frequent daytime charging will also lead to lower EV running costs and a lower-cost energy system for all.

Electrify 2515 is a community campaign to replace gas home appliances and petrol vehicles with efficient electric alternatives. It's run by a group of volunteer locals committed to reducing community-wide emissions and providing practical and accessible solutions for households and businesses to transition to renewable energy. We will be actively encouraging and facilitating the growth of EV ownership in the area in the 2023/4 period and beyond. Greater proportion of EVs in the local area will bring a wide range of benefits to the wider community including:

- A significant reduction in carbon emissions (cars are the biggest contribution to the climate crisis for an average householder and light vehicles account for 10% of Australia's greenhouse gas emissions¹)
- An improvement in air quality and noise pollution bringing a range of health benefits.
- A savings of on average \$3000/year fuel costs per household. In 2022, \$15,790,000 was spent on petrol and diesel, which means millions more is available to be spent on the local economy²

To facilitate the accelerated growth of EVs in the local area, Electrify 2515 will be actively supporting and expecting WCC to urgently and comprehensively invest in EVCI, whilst meeting our recommended guiding principles. Below is our response to the specific details in the proposed EVCI policy.

¹ <https://www.energy.gov.au/households/transport>

² Rewiring Australia presentation August 2022

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Guiding Principles

- Electric Vehicles are the future of private vehicle ownership, and the policy should not only support the rapid uptake of EVs but reflect planning for beyond 2030. Future proofing development and infrastructure is important in preparing for the inevitable transition.
- WCC must assist with shifting electric usage loads to the middle of the day during peak solar generation and the policy should reflect this.
- WCC must invest and coordinate community-owned solar generation to support EV charging. It is not enough to provide EVCI and power it with fossil fuels if WCC is serious about meeting its 'Sustainable Wollongong 2030' emission reductions goals.
- WCC-owned EVCI is an equity priority and will improve access for apartment dwellers, renters, and low-income households.
- Range anxiety continues to be an issue for potential EV owners and convenient and plentiful chargers will quell concerns.
- Public ownership of assets should be prioritised.

Policy Response

Integration

The EVCI Policy should integrate with WCC's Climate Change Mitigation Plan (2023-27) as well as the Wollongong Development Control Plan (2009).

- Update the DCP to mandate provision of EVCI in new, expanded, and renovated class 2 buildings with communal parking areas (or at least mandating the provision of electrical infrastructure for future charger installation).
- Integrate EVCI into WCC's new climate Mitigation Plan which will help meet emissions reduction targets faster.

Objectives

In support:

All outlined policy objectives.

Needs review:

- Include the active facilitation of shifting EV charging load management to daytime solar peaks.

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- Include planning for the long-term inevitable and significant change to EV use. The policy should not just reflect Phase 1 of initial deployment of EVCI but reflect the future transformation of the light vehicle industry to save on future costs.

EVCI Provider Selection

In support:

Outlined aspects of the procurement process.

Needs review:

Prioritising the public ownership of EVCI. Whilst private ownership of some EVCI may make sense, eg DC rapid chargers, WCC should own and manage other aspects including Level 1 & Level 2 AC chargers to provide free/low cost charging to improve equitable access to EVs.

Site selection

In support:

- Sites to be prioritised that are: WCC owned/managed; close to public transport; accessible (day/night, to commuters, **also** to renters and strata dwellers)

Needs review:

- While sites close to electrical capacity should be prioritised for cost effectiveness and especially for level 3 chargers, expanding electrical capacity in potential sites is also necessary and the policy should reflect this (in a range of WCC car parks, off-road parking etc). Highly visible and accessible chargers will actively encourage greater EV uptake.
- Selecting sites that also complement potential solar generation should be a high priority. For instance, installing solar carpark rooftops (this will also reduce the heat island effect), installing large solar arrays on community buildings (libraries, surf clubs etc) *as well as* the adjacent EVCI.
- Areas that have a high concentration of apartments, other strata properties and high-density areas should have nearby EVCI to improve access.
- Include sites that are highly visible and frequented destinations.
- Include sites that link to tourism (eg. Symbio, large hotels, beaches etc) to support increase visitors as a destination and support local economy

Types of charging stations

In support

A range of charger types including level 2 and level 3 chargers.

Needs review

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- We believe the best outcome is a small number of relatively expensive Level 3 fast chargers and widely available lower cost slower Level 2 chargers. For typical road users, the lowest cost way to recharge should be to regularly 'top up' from slow chargers on cheap green solar energy.
- Level 3 chargers can be provided and operated for private profit and used by intensive road users - eg taxi services or commercial drivers needing full recharges on a daily basis.
- We support a large deployment of level 2 (both 7kw and 11-22kw) chargers in a greater number of areas and sites that offer many charging points. This is especially the case at commuter car parks and similar 4-8 hour parking areas. For example <https://www.atompower.com/> has a system which allows a dozen cars to connect to a single core charging point and manages the 'queueing' to avoid overloading.
- Making charge points cheap and abundant will minimise the need to reserve specific spaces for EVs. Reserved EV parking should be limited to a small number of fast chargers.
- Plan for technological developments now such as Vehicle to Grid charging infrastructure and communications enabled infrastructure that will support load control. This is the future and it is prudent to plan for technological developments now.
- Consider pole mounted chargers (eg. [EVX Glebe](#) example) as a large number of WCC residents park on the street.

WCCs Role

Needs review

- **WCC need to promote/incentivise energy charging behaviour to shift to midday peaks, which will benefit the energy grid as a whole and reduce emissions.**

Charging EVs is predicted to increase demand for electricity overall (almost doubling) in the coming years as we move off fossil fuels. Australian rooftop solar is the cheapest form of generation in the world, and already regularly makes up more than 50% of available energy in the grid at midday peaks. Maximising EV charging at these peak solar times will make the energy system more affordable for everyone. In contrast, if most people charge at home overnight, this will increase the need for additional generation and additional storage to cover this nighttime demand, adding costs to the energy market.

- **WCC must recognise its role in planning for the long-term transition to EVs and how they will contribute to creating liveable communities.**

The policy must go beyond planning to install a handful of chargers sporadically with what suits in today's environment, but to lay the foundations for a fully electric community. For instance, EVs will play a significant role in changing how energy is stored and managed and infrastructure should be planned for now (e.g. provision of electrical distribution boards, conduit/cable trays, points for future connection of EV chargers, proximity to solar generation sites, communication

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software integration etc). WCC to work with NSW Government, Endeavour Energy, Industry Bodies and community groups to plan for this long-term transition.

- **WCC could use this opportunity to consider potential business and financial models that will support EV uptake in the LGA.**

For example, WCC should incentivise businesses to provide EVCI at workplaces.

WCC could investigate financing options for businesses and homeowners to pay for new EV chargers through their rates.

Further recommendations

- WCC to partner with Electrify 2515 and Rewiring Australia to run a fast-tracked pilot trial of level 2 chargers at WCC sites with adjacent installed solar arrays (eg. at Thirroul Community Centre), testing the success prior to a large scale rollout
- All public shade structures should be required to have solar installed and level 1, weatherproof charging infrastructure.
- WCC to realign their internal CAPEX and OPEX balance sheets and get solar onto all WCC buildings as soon as possible to ensure people are using renewable local power where possible.
- Consider supporting EV car sharing service
- Increase active and public transport options, which integrate with electric vehicle plans (eg. move local bus fleet to EV, provide EV chargers at transport hubs etc) to provide a holistic approach to liveable communities.