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22nd March 2022

Dear Ms Barone,

Re: Electrification of Transport in the City - Strategy and Action Plan

Thank you for the opportunity to comment on the City of Sydney's strategy and action plan for electrifying transport in the city.

Bicycle NSW has been the peak bicycle advocacy group in NSW for forty-seven years, and has more than 30 affiliated local Bicycle User Groups. Our mission is to *'create a better environment for all bicycle riders'*, and we support improvements to facilities for pedestrians and cyclists. Bike riding provides a healthy, congestion-reducing, low-carbon form of travel that is quiet, efficient and attractive for all ages with the correct infrastructure design.

Bicycle NSW strongly supports the City of Sydney's goal to reach Net Zero by 2035 and its consistent commitment to a city that enables walking, cycling and public transport, supported by electric vehicles, as the best way to facilitate a reduction in transport related emissions.

In this submission, Bicycle NSW recommends additional steps to hasten the Net Zero 2035 target by making transport electrification more inclusive, convenient and socially equitable.



Figure 1: Smiling faces at the Better Streets Ride and Walk event on 4th March 2023. The Better Streets coalition works to build support for streets that encourage walking and cycling. Improvements to urban amenity and reductions in emissions will benefit the entire community. (Source: Bicycle NSW)

Continuing the vision of a sustainable, inclusive and resilient city

The City of Sydney remains committed to the Sustainable Sydney 2030-2050 - Continuing the Visionⁱ goals of fewer cars causing less congestion, reduced air and noise pollution, a city for walking and cycling, improved access to public transport, and the creation of a 10-minute city, where everything is accessible without having to drive.

The Electrification of Transport in the City - Strategy and Action Planⁱⁱ continues to prioritise active and public transport over private car use. Sydney's emphasis on inclusivity and equity remains a focus and it is significant that the strategy clearly states that EVs will not be privileged at the expense of public space, or optimum access and convenience for the greater communityⁱⁱⁱ.

Whilst acknowledging Sydney's dedication to active transport, **the strategy lacks sufficient actions for growing the mode share of e-bikes and electric micromobility.**

Action 5 sets out how the City will campaign for any government subsidies for electrification to apply to e-bikes and other forms of micromobility, respecting the City's fleet transition hierarchy. "Any subsidies or incentives should, as a priority, support people to not use cars". Action 10 promises to encourage NSW Government to include e-bikes and other micromobility modes to accelerate the transition of service and delivery vehicle fleets to electric vehicles. These actions recognise that although state and federal e-bike subsidy schemes are outside the local government legislative purview, City of Sydney is able to advocate for their implementation.

However, the strategy misses many important steps that the City of Sydney itself can take in the immediate and short-term to facilitate the use of e-bikes and micromobility by city residents and visitors.

This submission offers recommendations regarding e-bike share and loan schemes, micromobility trials, improved e-bike facilities and multimodal public transport.

The best EVs have two wheels

E-bikes, trikes and cargo bikes outperform larger EVs in every measure by multiples of 10^{iv}. And there are other areas in which large EVs can't compete:

Cost of living: E-bikes are anywhere between 10-40 times cheaper to purchase than an average EV^v, which, with a subsidy, makes them available to anyone who wants them. This reason alone makes e-bikes the EV of choice for rapidly decarbonising the transport sector.

Decarbonisation: E-bikes are 40 times less carbon-intensive to produce and draw a fraction of the electricity required to power an EV^{vi}. The National EV Strategy surmises that it will take 10 years to fully commission a national EV fleet and a used EV market. But when it comes to the climate emergency, time is a luxury we cannot afford.

E-bikes reduce traffic congestion: 1 average car (ICE or EV) takes up the space of 8 bicycles^{vii}. City of Sydney understands that congestion is a massive deadweight upon the economy and remains pledged to a walkable liveable city.

Micromobility for last mile logistics: For short trips and the majority of deliveries, standard vehicles cannot compete. This is because one e-cargo bike connected to a logistics hub can make 8-10 times as many trips as a truck battling through traffic^{viii}.

Healthy people and streets: A legacy of car-based planning has resulted in a deadly urban environment. Australians are currently making 2 million daily car trips under 2 km. As a result, 25% of children and 67% of adults are considered overweight or obese^{ix}. And in 2022, 1187 Australians were killed in road crashes. We celebrate City of Sydney's continual commitment to reducing the impact of vehicles on its streets.

Benefits to business: Both the Queensland^x and UK Governments agree that, *at a minimum*, every \$1 invested in bicycle infrastructure returns a \$5 net social benefit. The Value of Cycling^{xi}, a UK Government study, determined that bicycle schemes 'can achieve more for less, with benefit-to-cost ratios in the range of 5:1 to 19:1' This figure sometime reaches as high as 35.5:1 depending on connectivity and population.



Figure 2: Deliveries by e-bike already make a major dent in congestion and emissions in the City of Sydney and must be encouraged through safer infrastructure, charging facilities, e-bike loans and education programs (Image: City of Sydney)

Recommendation 1: Scale up e-bike loan schemes and solicit an additional lender to make them more affordable

The Green Square e-bike scheme allowed users to try an electric bike for a month with an option to purchase it at the end of the trial. Under this arrangement Transport for NSW funded the City of Sydney to deliver active transport outcomes identified in the Green Square Travel Demand Management Strategy^{xii}. Given the emphasis on active transport opportunities in the NSW Net Zero Cities Action Plan^{xiii}, there's an opportunity for City of Sydney to explore more accessible bike loan and loan-to-own schemes.

Bicycle NSW looks forward to TfNSW data on the outcomes of this scheme which is understood to have been successful. Cycle UK are in the process of expanding its similar but much larger bike loan scheme which was likewise successful and taken up by individuals and workplaces including the NHS. Paris offers a brilliant case study with the [Véligo](#) programme that rents out 20,000 high-utility e-bikes for 6 months at a very affordable price.

Bicycle NSW suggests that, in addition to TfNSW as a funding partner, City of Sydney should canvass private equity. For instance, Transport Mutual's Green Loan Scheme to purchase an e-bike has been Bicycle NSW's most visited media post. This is due to widespread cost of living pressures and therefore presents a partnership worth exploring.



Figure 3: City of Sydney partnered with 4 e-bike providers for the 4-week Green Square trial in 2022. (Image: City of Sydney)

Recommendation 2: Advocate to make e-bike share schemes more affordable through advertising on bike share collateral

E-bike share schemes have enormous potential to encourage mode shift to active transport and decarbonise the transport sector. This is happening across Europe, the UK, US and Asia and is exemplified by Janette Sadik Khan's transformation of New York City^{xiv}. In Sydney however, and across Australia, share bikes are largely underutilised. And the business model resembles the Wild West complete with the carcasses of failed businesses littering footpaths and canals. The outstanding problem with share bikes is that they are too expensive.

Stockholm's bikeshare model^{xv} utilises advertising space on the bike and associated physical and virtual collateral. All stakeholders benefit from the revenue and it is regarded as the world's cheapest, most sustainable and efficient bike share system.

Recommendation 3: Advocate with Bicycle NSW to cut the red tape and align bike share with the City of Sydney commitment to inclusion, sustainability, resilience and social equity.

Bicycle NSW understands that City of Sydney is constrained by NSW Legislation from allowing strategic advertising on bike share property. However, both local and state governments' have shared commitments to sustainability, decarbonisation and active travel, making a strong case for cutting legislative red tape. Furthermore, bike share companies have expressed a desire to work together to see a different model that would enable them to lower their price and increase sales.

With a new approach to finance, subsidy and advertising, bike share should be reoriented to tackle transport poverty and accelerate the decarbonisation of the transport network.

Recommendation 4: Given an 8-bike corral occupies the space of one parked car, install corrals where convenient for users and place them on the street, not on footpaths.

Bicycle corrals and charging stations must not impact pedestrian space. Partner with aligned businesses who will support corral placement on the kerbside e.g. supermarkets, schools, cafes, galleries, restaurants and bars with outdoor seating.

Corrals present additional opportunities to advertise and re-invest in e-bike infrastructure. Such considerations will require an adjustment to contract with existing street marketers QMS. Whilst there is a pre-existing contractual relationship between COS and the street advertising monopoly, it is reasonable to draw exceptions, exclusions on materials not yet existent. Cutting red tape is often more difficult than physical construction and for this reason reflexively avoided. But, considering the massive potential to rapidly decarbonise and enrich Sydney and those living and moving in it, we strongly recommend this avenue.

Recommendation 5: The NSW Government will co-fund EV charging bays. Therefore, double the number of e-bike charging facilities and have these available at corrals.

Corrals occupying parking spaces with charging ports present a useful strategic marker in place-making activities and the ongoing pedestrianisation of the CBD. Combined with a new approach to finance and advertising, the facilities will pay for themselves.

Public Transport

Bicycle NSW supports Actions 9-12 that focus on the electrification of high-impact transport fleets^{xvi}, particularly buses on routes with high frequency and high impact on residents and public amenity.

Recommendation 6: Bicycle NSW and Bike East recommend the introduction of an electric double-decker to add capacity and reduce congestion on Oxford Street and Bondi Road.

We suggest that Oxford Street is a key corridor for prioritising the introduction of electric buses. The 333 articulated bus from Circular Quay to North Bondi is Sydney's busiest bus route with up to 15 services per hour. Business Sydney's report *High Time - The Future of Oxford Street 2020*^{xvii} notes that 'the deployment of electric buses for the routes that traverse Oxford Street is a must'. Bicycle User Group BIKEast agrees that 'electrification of the bus fleet would be a complementary initiative to the separated cycleway, 30km/h speed limits, removing two traffic lanes, removing clearways and better place amenity' currently proposed as part of a major revamp of Oxford Street.

The recent decision by the NSW Government to enhance the bus fleet with electric buses that are much quieter and do not emit any noxious fumes means that there is a capacity to deliver. Given the economic value of Oxford Street to Sydney and the uplift that electric buses will provide through enhanced amenity of the public domain, Oxford Street will provide the right return on investment.

However, the 333 articulated single-decker bus is 18m long. A double-decker electric bus would not only provide a more space-efficient bus service, it is an iconic vehicle that celebrates public transport and encourages greater uptake.

Wellington, NZ, has introduced the first double decker electric bus. Compact and practical at 10.4m long, the buses fast charge at the terminus in 2-5 minutes^{xviii} using Dutch charging technology. They carry 83 passengers - slightly more than a Sydney bendy bus.

Recommendation 7: All electric public transport fleets must be fully accessible and multi-modal, with capacity inside or on special external racks to carry bicycles.

Having a transport system that is fully integrated^{xxx} enables people to switch between modes seamlessly. This makes for inclusive and efficient travel and eliminates the need for unnecessary car trips. Participants should be able to roll onto the light rail, train, ferry or bus without assistance or hassle from staff.



Figure 4: Wellington's 100% electric double decker buses were built by Kiwi Bus Builders in Tauranga, with the batteries provided by global company Microvast and the chassis coming from China-based company TEG (Source: Dominion Post)

Conclusion

Bicycle NSW thanks City of Sydney for its work to reach Net Zero by 2035 through the electrification of transport, always prioritizing active and public transport over private car use.

We have recommended additional steps to make electrification more inclusive, convenient, and socially equitable, including the scale-up of e-bike loan schemes, the reallocation of road space, not footpath space, for bike parking and leveraging private sector financing and advertising to dramatically reduce the cost of bike share schemes.

In addition, Bicycle NSW strongly supports a Low Emissions Zone in the CBD to incentivise operators to transition fleets to electric, the continued support of mobility hubs and the rapid modification of development controls to ensure that most EV charging will be provided by a commercial operator in off-street locations.

Bicycle NSW is confident that the City of Sydney will continue to meet the challenges ahead and we look forward to offering whatever assistance is required.

Yours faithfully,

Francis O'Neill

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Bicycle NSW

Peter McLean

Chief Executive Officer
Bicycle NSW

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- ⁱ City of Sydney. 2022. Sustainable Sydney 2030–2050 – Continuing the Vision, available at <https://www.cityofsydney.nsw.gov.au/sustainable-sydney-2030-2050> and City of Sydney. 2022. Community Strategic Plan – Delivering Sustainable Sydney 2030–2050, available at <https://www.cityofsydney.nsw.gov.au/strategies-action-plans/community-strategic-plan>.
- ⁱⁱ <https://www.cityofsydney.nsw.gov.au/vision-setting/have-your-say-electrification-of-transport-in-the-city>
- ⁱⁱⁱ <https://www.cityofsydney.nsw.gov.au/vision-setting/have-your-say-electrification-of-transport-in-the-city>
- ^{iv} <https://theconversation.com/cycling-is-ten-times-more-important-than-electric-cars-for-reaching-net-zero-cities-157163>
- ^v <https://bicyclensw.org.au/wp-content/uploads/2022/11/221108-NSW-EV-Strategy-submission.pdf>
- ^{vi} <https://bicyclensw.org.au/wp-content/uploads/2022/11/221108-NSW-EV-Strategy-submission.pdf>
- ^{vii} https://bicyclensw.org.au/wp-content/uploads/2022/11/2022-October_Submission-to-National-Electric-Vehicle-Strategy_FINAL.pdf
- ^{viii} <https://www.wsp.com/en-au/insights/future-of-delivery>
- ^{ix} <https://www.diabetesaustralia.com.au/wp-content/uploads/Diabetes-the-silent-pandemic-and-its-impact-on-Australia.pdf>
- ^x <https://www.tmr.qld.gov.au/Travel-and-transport/Cycling/Cycling-investment-in-Queensland>
- ^{xi} https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509587/value-of-cycling.pdf
- ^{xii} <https://www.parliament.nsw.gov.au/la/papers/pages/qanda-tracking-details.aspx?pk=92814#:~:text=The%20electric%20bike%20trial%20scheme,Square%20Travel%20Demand%20Management%20Strategy>.
- ^{xiii} https://www.dpie.nsw.gov.au/__data/assets/pdf_file/0010/539794/NSW-Net-Zero-Cities-Action-Plan.pdf
- ^{xiv} <https://www.nytimes.com/2011/09/11/opinion/sunday/bruni-janette-sadik-khan-bicycle-visionary.html>
- ^{xv} <https://www.vice.com/en/article/g5vm8x/stockholm-thinks-it-can-have-an-electric-bikeshare-program-so-cheap-its-practically-free> <https://cities-today.com/stockholm-to-launch-new-e-bike-sharing-service/>
- ^{xvi} <https://www.cityofsydney.nsw.gov.au/vision-setting/have-your-say-electrification-of-transport-in-the-city>
- ^{xvii} <https://www.businesssydney.com/sydney-policy-and-advocacy/thinking-business-reports/the-future-of-oxford-street>
- ^{xviii} <https://chargedevs.com/newswire/heliox-fast-chargers-power-new-zealands-first-10-electric-double-decker-buses/>
- ^{xix} <https://blogs.worldbank.org/transport/bicycles-and-public-transport-perfect-match>