Transport and Infrastructure Net Zero Consultation Roadmap

Take the survey

Department of Climate Change, Energy, Environment and Water

Response received at:
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5 First name
[redacted]

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9 Who are you answering on behalf of?

Individual or individuals

10 Organisation name

Not answered

11 What best describes you or your organisation?

Not answered

12 What sector do you represent?

Not answered

13 What state or territory do you live in?

Victoria

14 Postcode

3039

15 What area best describes where you live?

City

16 1. Do you support the proposed guiding principles?

Yes

17 1.1 Please add details to your response.

Yes, I support the proposed guiding principles. They are comprehensive and well-rounded, focusing on maximising emissions reduction, economic opportunities, inclusivity, equity, and evidence-based decision-making. However, more emphasis should be placed on integrating e-bikes within the EV policy framework to accelerate emissions reductions effectively and cost-efficiently.

18 2. Do you support the use of the avoid-shift-improve framework as a tool to identify opportunities for abatement?

Yes

19 2.1 Please add details to your response.

Yes, I support the use of the avoid-shift-improve framework as a tool to identify opportunities for abatement. This framework effectively addresses emissions by reducing unnecessary travel (avoid), promoting sustainable transport modes like active and public transport (shift), and enhancing the efficiency and technology of transport systems (improve). Incorporating e-bikes within this framework could further accelerate emissions reductions cost-effectively and efficiently.

20 3. Do you agree the development of a national policy framework for active and public transport will support emissions reduction?

Yes

21 3.1 Please add details to your response.

Yes, I agree that developing a national policy framework for active and public transport will support emissions reduction. This approach promotes integrated land-use planning, improved infrastructure for cycling and walking, and increased public transport options, thereby reducing the reliance on high-emission private vehicles. Encouraging the use of e-bikes as part of this framework can further accelerate emissions reductions cost-effectively and efficiently.

22 4. What should be included in a national policy framework for active and public transport and how should it be developed?

A national policy framework for active and public transport should include:

• Infrastructure Development: Investment in safe and accessible cycling lanes, pedestrian walkways, and public transport connectivity.
• Legislative Reforms: Policies prioritising active and public transport networks in urban planning.
• Technological Innovations: Support for electric micromobility like e-bikes and e-scooters.
• Public Awareness Campaigns: Education on the benefits of active transport and responsible usage.

It should be developed collaboratively with all levels of government, industry stakeholders, and communities to ensure comprehensive and inclusive planning.

23 ## 5. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the movement of people contributes to transport emissions reduction?

To ensure the movement of people contributes to transport emissions reduction, governments should financially incentivise e-bike adoption and integrate them into the National Electric Vehicle Strategy. Additionally, all stakeholders should invest in safe cycling infrastructure, promote public transport electrification, and enhance urban planning to encourage active transport modes.

24 ## 6.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure that the movement of goods contributes to transport emissions reduction?

To ensure the movement of goods contributes to transport emissions reduction, governments should financially incentivise low or zero emission freight technologies, improve access to intermodal facilities, and invest in sustainable transport infrastructure. Additionally, collaboration with industry to enhance efficiency across supply chains and promote the shift to rail and other low-emission modes is crucial.

25 ## 6.2. How would these actions address the identified challenges and opportunities for emissions reduction in the movement of goods?

The proposed actions, such as increasing access to intermodal facilities, incentivising low or zero-emission freight technologies, and promoting the shift to rail, address the challenges by reducing road congestion, lowering emissions, and enhancing supply chain efficiency. These steps also offer opportunities for innovation and economic gains by fostering sustainable practices across the transport sector.

26 ## 7. Do you agree with the proposed net zero pathway for light road vehicles?

Yes

27 ## 7.1 Please add details to your response.

Yes, I agree with the proposed net zero pathway for light road vehicles. However, it should also include financial incentives and support for e-bikes, which can reduce emissions faster, cheaper, and simpler than cars. E-bikes offer an immediate and effective solution for local trips and commutes, complementing the broader electric vehicle strategy.

28 8. The Australian Government is currently developing an Australian New Vehicle Efficiency Standard and has already begun to implement actions in the National Electric Vehicle Strategy.8.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce light vehicle emissions?

To further reduce light vehicle emissions, the government should integrate e-bikes within the National Electric Vehicle Strategy, offering financial incentives and support to accelerate their adoption. Communities and industry should promote active transport options and invest in safer, more connected cycling infrastructure, while stakeholders can collaborate on public awareness campaigns to highlight the benefits of e-bikes.

29 8.2 How would these actions address the identified challenges and opportunities to reduce light vehicle emissions?

The Australian government's actions, such as implementing an Australian New Vehicle Efficiency Standard and the National Electric Vehicle Strategy, aim to increase the availability of cleaner, cheaper-to-run vehicles, thus reducing light vehicle emissions. By financially incentivising and encouraging e-bike adoption, emissions reductions can start sooner, advance faster, and require less public funding, addressing both the challenge of high transport emissions and the opportunity for quicker, more cost-effective decarbonisation.

30 9. Do you agree with the proposed net zero pathway for heavy road vehicles?

Not answered

31 9.1 Please add details to your response

Yes, I agree with the proposed net zero pathway for heavy road vehicles. The plan acknowledges the necessity of different technologies, such as battery electric trucks for shorter distances and hydrogen or low carbon liquid fuels for larger payloads and longer

distances. Removing regulatory barriers and investing in charging infrastructure are crucial steps to facilitate this transition and reduce emissions effectively.

32 10. The proposed pathway for heavy road vehicles relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels.Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.

1: Battery electric
2: Hydrogen fuel cell
3: Low carbon liquid fuels

33 10.1 Please add details to your response. Why did you rank them in that order?

This order reflects the current viability and infrastructure readiness of each technology. Battery electric vehicles are already practical for urban areas, while hydrogen fuel cells show promise for long-distance travel but need more infrastructure. Low carbon liquid fuels serve as a transitional solution where electrification or hydrogen use is not yet feasible.

34 11. What role should low carbon liquid fuels play in the heavy vehicle decarbonisation?

Low carbon liquid fuels (LCLFs) should serve as a transitional solution in the decarbonisation of heavy vehicles, particularly for larger payloads and long-distance routes where battery electric and hydrogen technologies are currently less viable. They offer immediate emissions reductions while infrastructure for alternative technologies is being developed and scaled.

35 12. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce heavy vehicle emissions?

To reduce heavy vehicle emissions, governments should focus on supporting the adoption of battery electric trucks for shorter distances and lighter payloads, and hydrogen or low carbon liquid fuels for larger payloads and longer distances. Additionally, removing regulatory barriers such as width and mass limits, and investing in charging infrastructure and renewable fuel production will be critical.

36 13. Do you agree with the proposed net zero pathway for rail?

Not answered

37 13.1 Please add details to your response.

Yes, I agree with the proposed net zero pathway for rail as outlined in the Australian Government's Net Zero Roadmap and Action Plan. The plan recognises rail's low emissions intensity and its critical role in moving freight efficiently. However, it could further emphasise the integration of rail with other sustainable transport modes, such as e-bikes, to enhance last-mile connectivity and overall emissions reduction.

38 14. The proposed pathway for rail relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels.Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.

1: Battery electric
2: Hydrogen fuel cell
3: Low carbon liquid fuels

39 14.1 Please add details to your response. Why did you rank them in that order?

I ranked battery electric first due to its maturity and readiness for immediate deployment, followed by hydrogen fuel cells, which hold significant long-term potential but require further development. Low carbon liquid fuels were ranked last as they are less advanced and need substantial cost reductions and production process improvements before widespread adoption.

40 15. What role should low carbon liquid fuels play in rail decarbonisation?

Low carbon liquid fuels (LCLFs) should serve as a transitional solution in rail decarbonisation, particularly where battery and hydrogen technologies are not yet viable. They can help reduce emissions from diesel locomotives in the short-term, while infrastructure for battery-electric and hydrogen trains is developed and expanded.

41 16. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce rail emissions?

To further reduce rail emissions, it's crucial to:

• Promote and financially support the adoption of low carbon liquid fuels (LCLFs) as an interim solution while infrastructure for battery-electric and hydrogen trains is developed.
• Incentivise the shift from road to rail for freight, given rail's lower emissions intensity.
• Invest in electrification of rail networks and improve energy efficiency across the entire rail system.

These actions leverage existing opportunities and align with the pathways outlined in the Net Zero Roadmap.

42 16.1 How would these actions address the identified challenges and opportunities to reduce rail emissions?

The Australian Government's Net Zero Roadmap and Action Plan outlines actions such as promoting low carbon liquid fuels, incentivising the shift from road to rail for freight, and investing in electrification of rail networks. These measures aim to address rail emissions by utilising cleaner fuel options, reducing reliance on high-emission road transport, and improving energy efficiency in rail systems, thus capitalising on rail's lower emissions intensity and supporting a transition to more sustainable transport modes.

43 17. Do you agree with the proposed net zero pathway for maritime?

Yes

44 17.1 Please add details to your response.

Based on the information provided in the documents, it is difficult to provide a definitive answer as to whether I agree with the proposed net zero pathway for maritime. The documents outline the challenges and opportunities associated with decarbonising the maritime sector, as well as potential technologies and strategies that could be used. However, without further analysis and consultation, it is difficult to make an informed decision.

45 18. The Australian Government is engaging in consultation as part of the development of the Maritime Emissions Reduction National Action Plan and those consultations will also inform the final Roadmap and Action Plan. 18.1 What additional actions by governments,

communities, industry and other stakeholders need to be taken now and in the future to reduce maritime emissions?

The Australian Government is currently engaging in consultation to develop the Maritime Emissions Reduction National Action Plan, which will inform the final Roadmap and Action Plan for maritime emissions reduction. To further reduce maritime emissions, additional actions by governments, communities, industry, and other stakeholders may include promoting the adoption of low-emission technologies, investing in sustainable fuels and infrastructure, implementing regulations and incentives for emission reductions, and fostering international collaboration on maritime decarbonization efforts.

46 18.2 How would these actions address the identified challenges and opportunities to reduce maritime emissions?

The actions proposed in the Net Zero Roadmap and Action Plan aim to address the challenges and opportunities to reduce maritime emissions by promoting the adoption of low-emission technologies, investing in sustainable fuels and infrastructure, implementing regulations and incentives for emission reductions, and fostering international collaboration on maritime decarbonization efforts. These actions will help drive the development and deployment of sustainable aviation fuels (SAF), explore battery electric and hydrogen-powered aircraft, support the transition to net zero emissions in the Australian aviation industry, and contribute to global efforts to reduce emissions from international aviation.

47 19. Do you agree with the proposed net zero pathway for aviation?

Yes, the proposed net zero pathway for aviation includes a range of measures such as the development of sustainable aviation fuels, exploration of electric and hydrogen-powered aircraft, and collaboration with industry stakeholders.

48 19.1 Please add details to your response.

These measures aim to reduce emissions in the aviation sector while supporting industry growth. However, the effectiveness and feasibility of these measures in achieving net zero emissions need to be further assessed and evaluated.

49 20. The Australian Government has already engaged in consultation on aviation decarbonisation through the development of the Aviation White Paper and those consultations will also inform final Roadmap

and Action Plan.

Not answered

50 20.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce aviation emissions?

To reduce aviation emissions, additional actions that can be taken by governments, communities, industry and other stakeholders include:

• Encouraging the development and deployment of sustainable aviation fuels (SAF) and other low carbon liquid fuels.
• Investing in research and development of new technologies, such as electric and hydrogen-powered aircraft.
• Improving energy efficiency and operational practices within the aviation sector, including air traffic management and aircraft design.
• Collaborating with international partners to develop global standards and agreements for reducing aviation emissions.

These actions will be crucial in achieving the goal of reducing aviation emissions and transitioning towards a more sustainable aviation industry.

51 21. Do you agree with the proposed net zero pathway for transport infrastructure?

Yes

52 21.1 Please add details to your response.

I believe that the proposed net zero pathway for transport infrastructure is a step in the right direction. However, I would like to see a stronger emphasis on supporting and incentivising the adoption of electric bikes as part of the overall plan. E-bikes have the potential to contribute to emissions reduction in a cost-effective and accessible way, and should be included within the framework for light vehicles.

53 22. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce transport infrastructure emissions and ensure that transport infrastructure is ready for and enables low-emission transport modes?

To reduce transport infrastructure emissions and enable low-emission transport modes, additional actions by governments, communities, industry, and other stakeholders need to be taken now and in the future. These actions include:

1. Investment in sustainable and low-emission transport infrastructure.
2. Collaboration and coordination
3. Promotion of active and public transport.

54 ## 22.1 How would these actions address the identified challenges and opportunities to reduce transport infrastructure emissions?

Investment in sustainable and low-emission transport infrastructure: Governments should prioritize funding and investment in the development and maintenance of sustainable and low-emission transport infrastructure, such as cycling lanes, pedestrian walkways, and shared paths, as well as charging infrastructure for electric vehicles.

Collaboration and coordination: Governments, industry, and communities should work together to develop and implement comprehensive national policies and strategies that support the transition to low-emission transport modes. This collaboration should involve coordination in planning, designing, and delivering transport infrastructure projects, as well as sharing knowledge and best practices.

Promotion of active and public transport: Governments should actively promote and incentivize the use of active and public transport modes, such as walking, cycling, and public transit. This can be done through awareness campaigns, improved accessibility, and investments in public transport services and electrification.

By taking these actions, we can reduce transport infrastructure emissions and create a sustainable and low-emission transport system that supports Australia's goal of reaching net zero by 2050.

55 ## 23. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the energy mix is ready to support transport emissions reduction?

Some key considerations for actions include:

• Investing in the establishment of a low carbon liquid fuel industry through production incentives and support.

• Promoting the uptake of electric vehicles and supporting the development of charging infrastructure.
• Encouraging active transport modes, such as cycling and walking, and improving infrastructure to support their use.
• Implementing policies and regulations that incentivize the use of low-emission transport modes and technologies.
• Collaborating with international partners to share knowledge and best practices in reducing transport emissions.

By taking these actions, we can create a sustainable and low-emission energy mix that supports the decarbonization of the transport sector.

56 ## 24. How should the use of low carbon liquid fuels (LCLFs) be prioritised across different transport modes over time to achieve maximum abatement?

The use of low carbon liquid fuels (LCLFs) should be prioritised across different transport modes over time based on their feasibility and emissions reduction potential. In the short term, LCLFs can be used in transport modes where alternative emissions reduction technologies are not yet viable. In the medium to long term, as technologies like battery electric and hydrogen technology expand, the use of LCLFs should decrease. Prioritising the transition to these lower emission technologies will help achieve maximum abatement in the transport sector.

57 ## 25. What are the best ways for the Australian Government to work collaboratively with industry, business, governments and communities to implement the proposed pathways?

The Australian Government can work collaboratively with industry, business, governments, and communities to implement the proposed pathways by:

1. Establishing clear mode share and investment targets for active and public transport.
2. Investing in the expansion and electrification of public transport services.
3. Collaborating with state, territory, and local governments to improve active transport infrastructure.
4. Promoting intermodal connectivity between active and public transport.
5. Introducing incentives to encourage the use of active and public transport options.

58 ## 25.1 What are good domestic or international examples of partnership

and collaboration on transport and transport infrastructure emissions reduction that could inform the final Roadmap and Action Plan?

Good domestic examples of partnership and collaboration on transport and transport infrastructure emissions reduction that could inform the final Roadmap and Action Plan include initiatives such as the ACT Climate Change Strategy, NSW Electric Vehicle Strategy, and Queensland Zero Emission Vehicle Strategy. Internationally, examples include Seville's comprehensive active transport policy and the Netherlands' successful integration of cycling into their transport system. These examples demonstrate the importance of government leadership, investment in infrastructure, and collaboration with industry and communities to achieve emissions reductions in the transport sector.

59

25.2 What opportunities can Government leverage to show leadership in Australia and internationally?

The Australian Government can show leadership in Australia and internationally by leveraging the following opportunities:

- Setting national goals to achieve higher rates of active and public transport, and revising urban planning policies to prioritize active transport and public transport networks.
- Investing in the modernization and expansion of the public transport network, electrifying public transport, and improving active transport infrastructure.
- Collaborating with state, territory, and local governments to deliver safe and accessible cycling lanes, pedestrian walkways, and shared paths.
- Promoting intermodal connectivity between active and public transport, and introducing incentives to encourage individuals to choose active and public transport options.

60

26. What measures and metrics should be used to evaluate the final Transport and Infrastructure Net Zero Roadmap and Action Plan?

The final Transport and Infrastructure Net Zero Roadmap and Action Plan should be evaluated based on the following measures and metrics:

- Percentage reduction in CO2 emissions from Australia's transport sector.
- Availability and uptake of zero or low emission technologies.
- Availability of charging and refuelling infrastructure.
- Maximising emissions reduction and economic opportunity.
- Cost to government of zero or low emission technologies.
- Cost to consumers of zero or low emission technologies.
- Improved health outcomes and reduced congestion.

- Climate risk considerations in decision making.
- Public awareness and understanding of the Roadmap and Action Plan.

These measures and metrics will help assess the success of the plan in achieving emissions reductions, promoting sustainable technology adoption, improving infrastructure, and ensuring equitable access to low emission transport options.

61 26.1 What other data and evidence could governments use and how could this offer further insights on the pace, scale and location of transport emissions reduction pathways?

Governments can use additional data and evidence, such as transport emissions inventories, traffic and travel demand data, energy consumption data, and research on technological advancements, to gain further insights into the pace, scale, and location of transport emissions reduction pathways. This information can help identify key areas for emissions reduction, evaluate the effectiveness of existing policies, and inform the development of targeted strategies to accelerate the transition to low emission transport options.

62 27. Do you have any feedback on the proposed review process?

As an avid cycling and e-bike enthusiast, I believe that the proposed review process for the Australian government's Net Zero Roadmap and Action Plan is comprehensive and well-structured. The plan includes regular updates and an in-depth review every three to five years, which will ensure that progress is monitored and adjustments can be made based on feedback and data. This iterative approach will help to track the success of the plan and inform future actions to reduce transport emissions effectively.

63 28. Do you have any further feedback on the Consultation Roadmap and proposed pathways?

As an avid cycling and e-bike enthusiast, I believe that the proposed review process for the Australian government's Net Zero Roadmap and Action Plan is comprehensive and well-structured. The plan includes regular updates and an in-depth review every three to five years, which will ensure that progress is monitored and adjustments can be made based on feedback and data. This iterative approach will help to track the success of the plan and inform future actions to reduce transport emissions effectively.

64 28.1 Is there anything missing? Are the sections appropriately integrated? Is the Roadmap appropriately ambitious?

Based on my review of the Australian government's Net Zero Roadmap and Action Plan and my expertise as a transport policy expert, I believe that the Consultation Roadmap provides a comprehensive framework for reducing transport emissions and achieving net zero by 2050. The proposed pathways and actions outlined in the roadmap address key challenges and opportunities in the transport sector. However, it is important to ensure that active transport, such as e-bikes, are given greater consideration and support within the plan to maximize emissions reductions and provide affordable and sustainable transport options for all Australians.

65 29. Is there any further information or documentation that you wish to be considered with your submission?

Yes

66 Would you like to upload a document?

Yes

67 Have you removed any identifying information from your submission?

Yes

68 Upload a submission

WEB-2024-eBike-Brochure-DDL-v4.pdf

69 Upload a submission

Not answered

70 Upload supporting file

Not answered

71 Upload supporting file

Not answered

Australia's e-bike moment

BICYCLE NETWORK®

About Bicycle Network

Bicycle Network is Australia's largest membership-based bike riding organisation, representing nearly 50,000 members nationwide.

We support our members with bike riding insurance (incl. medical coverage, income protection and third-party coverage) and legal support in the event of a crash.

We are a registered Australian health charity, and our mission is to help create liveable places where people are physically active. We aim to make it easier for everyone to ride a bike every day.

We campaign to build more places to ride, fight for riders' rights and make bike riding safer for all Australians.

We run world class events including Great Vic Bike Ride, Around the Bay, Peaks Challenge and the Great Outback Escape.

For more information visit **bicyclenetwork.com.au**.

Follow Bicycle Network on:

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Acknowledgement of Country

We acknowledge the traditional custodians of the lands where we work and live and pay our respects to Aboriginal and Torres Strait Islander Elders past, present and emerging. We celebrate the diversity, stories and traditions of Aboriginal and Torres Strait Islander people and their ongoing cultures and connections to the lands and waters of Australia.

A note from Bicycle Network's Chief Executive Officer

The battle for the future of our planet has moved into new territory.

The emergence of e-bikes has rapidly expanded the appeal of two-wheeled transport, tapping into new segments of the population and helping them over hills and home with groceries.

E-bikes allow workers to arrive relaxed at the office and they are reshaping the school run, as more Australian families swap cars for a healthier, cost-effective alternative.

This ingenious mode of transport is enabling more Australians to combat the risk of inactive lifestyles. It is empowering individuals to play a daily part in a cleaner future and make sustainable transport choices.

2023 was the first year that global warming exceeded average temperatures of 1.5 degrees, the limit underpinning the Paris Agreement, to which Australia is party.

While experts consider this the threshold for avoiding the worst impacts of climate disaster, they say there is still much we can do to control how much the planet warms.

Transport emissions are our fastest growing source of emissions, and climate experts have sounded the alarm.

E-bikes have given us a powerful tool to create change. They offer an easy solution for the replacement of car trips and an accessible opportunity to dramatically reduce fossil fuel demand around the globe.

We find ourselves at a critical point in the history of transportation. Considering the task in front of us, the e-bike may have arrived at just the right time.

Alison McCormack
Chief Executive Officer

Contents

Introduction

Australia's transport emissions are on the rise and on track to become our biggest contributor to the climate emergency by 2030.

Federal and state governments have taken commendable steps to facilitate a shift to low-carbon transport, through the National Electric Vehicle Strategy, new regulations for fuel efficiency, purchase incentives and tax credits for electric vehicles.

Modelling shows we must do more than rely on electric cars to meet our climate obligations. We must move rapidly towards other sustainable modes of transport such as bike riding and walking. Expanding our low-carbon transport vision to encompass e-bikes will be instrumental in accelerating this shift, while inspiring an entirely new demographic of active transport users.

This will help us tackle not just the climate emergency, but the many risks that come with sedentary lifestyles. Obesity is projected to cost the Australian community $87.7 billion by 2032,[i] and brings with it increased risk of heart disease, diabetes and cancer.

The concurrent crises of climate change and physical inactivity present a complex problem, and the e-bike is the tool that can help us solve both problems together.

Millions of car trips in Australia's capital cities each day are under 5km, and burning calories instead of fossil fuels to carry them out would bring substantial benefits to our health, and the outlook of the planet.

The emergence of e-bikes means this is within our grasp and, with small adjustments in policy and public sentiment, we can set Australia on a path for a healthier and more sustainable future.

This booklet provides an overview of the benefits of e-bikes as they relate to human health, transport affordability and climate action. It also contains evidence in support of financial incentives for e-bike purchases. But before we dive in...

What is an e-bike?

E-bikes are bikes with electric motors that assist riders as they pedal up to speeds of 25km/h. Known as pedelecs or EPACs, they have a continuous rated power output of 250 watts and can roughly double the amount of power your legs put out. They typically cover 80-100km on each good-quality battery charge, and the level of assistance can be dialled up and down as the rider desires.

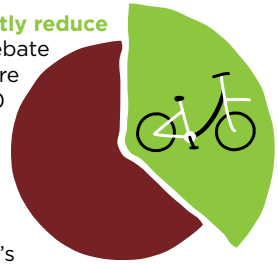
Hundreds of thousands of Australians now get around by e-bike, receiving a nudge along as they push up hills, cover long distances, carry large loads home from the supermarket and drop their kids off at school.

E-bikes can come in all forms to suit all kinds of uses, and cargo models are proving especially popular. They can be fitted with mudguards, racks and lights for commuting, extra kid's seats and cargo holds for larger items (or pets!). Will you join the movement?

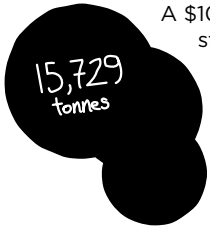
E-bikes are a smart investment for the planet

It's time to subsidise the purchase of the world's most climate-friendly vehicle. Big returns are there for the taking.

As the evidence builds around the many benefits of e-bike use, governments around the world are taking proactive steps to accelerate their uptake. E-bike rebate programs have been implemented in all corners of the globe and are proving highly effective at not just getting people to use e-bikes, but to use them instead of cars.



E-bike rebate programs can **directly reduce emissions**. A study of Norway's rebate program found that emissions were reduced by between 440 and 720 grams of CO_2e (equivalent) per day for each participant, while a study on programs in California found emissions reductions of 12-44 kilograms of CO_2e per rebate participant per month.[ii] Colorado's rebate scheme for low-income earners encouraged owners to replace one third of their car trips with e-bikes.[iii]



A $1000 e-bike subsidy in Australia could stimulate 24,000 e-bike sales, avoid 13 million kilometres of car travel each year and **save 15,729 tonnes of greenhouse gas emissions** over five years. This shift from car use to e-bikes promises a cost-benefit ratio of more than $2 per $1 invested.[iv]

Purchasing incentives for e-bikes are widespread throughout North America and Europe and proving highly effective at **driving adoption**.

Australia has a history of guiding individual transport choices through financial incentives.

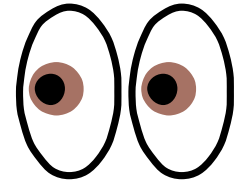
We've subsidised SUVs and made them the most popular cars on the road.

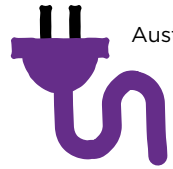
We've subsidised electric cars and sales have accelerated.

Let's subsidise e-bikes and watch them take off.

Cost is a barrier. A survey of US residents found nearly half would switch to an e-bike with financial incentive.[v] Similarly, surveys have found 41% of Europeans would be encouraged to buy an e-bike with financial incentives.[vi]

Tasmania introduced Australia's first e-bike rebate scheme in November 2023 and it inspired a **rapid and noticeable** increase in interest and sales.[vii]





Australia has a National Electric Vehicle Strategy. By broadening its scope to include financial incentives for e-bike purchases, the federal government could fast-track the nation's emissions reductions.

Like Tasmania, other governments can take bold steps of their own through **localised rebate programs** and lead the nation in sustainable transport.

Healthy living, made easy

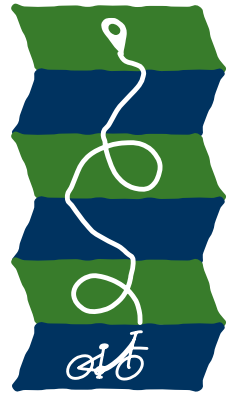
The perception that e-bikes don't count as exercise is proving outdated, as scientific research demonstrates the many health benefits for regular users.

Don't be fooled. Just because e-bikes give riders a little assistance along the way doesn't mean the health benefits are negligible. In fact, research shows that e-bike users routinely ride further and more often than traditional bike riders and have a good time doing it. This helps them to meet physical activity guidelines and live longer, healthier lives.

Sedentary lifestyles are major risk factors for premature death from heart disease, obesity, cancer and diabetes. Making e-bikes a part of our daily lives could help build healthy habits and keep these health risks at bay.

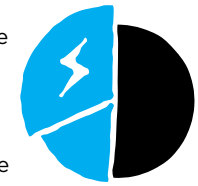
It is recommended that Australians engage in at least **150 minutes of moderate-to-vigorous activity per week**.[viii]

Riding an e-bike can be moderate exercise. Studies have found e-bike use can drive physiological responses that meet the parameters for **moderate intensity physical activity**.[ix]



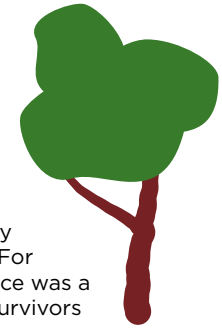
E-bikes **make longer trips more appealing**. Research has shown e-bike riders routinely cover greater distances than conventional bike riders. One study on more than 10,000 adult e-bike users in seven European countries found that average daily travel distance was significantly higher at 8km compared to 5.3km.[x] In a trial in Norway on parents of kindergarten children, e-bike users averaged 20.2km a week compared to 11.9km covered by conventional bike riders.[xi]

E-bikes encourage **more frequent trips**. Research shows that e-bike owners make healthier transport choices each day, even if they already have a bike. One study in Norway showed that after buying an e-bike, owners increased their share of total kilometres travelled by bike from 17% to 49%.[xii]



E-bikes **make exercise enjoyable**. Research has shown e-bikes offer a good workout, but the perceived effort can be low. Participants in one US study on e-bike commuting described it as "easier" and "fun." Another on 100 German workers found that while their perceived exertion was lower, they logged more time riding and expended more energy each week.[xiv]

E-bike riding is **great for mental health**. It is well established that outdoor exercise has big benefits for the brain, but a study directly comparing e-bike use to regular bike riding found greater improvements in reaction times and self-reported measures of mental health.[xv]



E-bikes can **ease the path to recovery**, by helping patients rehabilitate after injury. For example, one trial found electric assistance was a positive factor in enabling some stroke survivors to ride outdoors.[xvi]

Affordable transport, made easy

What would you do with $9000?

The country is in the midst of a cost-of-living crisis and Australian households are feeling the pressure from all angles, from ballooning grocery bills and rising utility prices to rent hikes, and increasing interest rates. But the cost of car ownership, is vastly underestimated and growing even faster than household expenses.

The typical Australian household in 2023 had two cars and spent $415 a week on transport**, 90% of which went towards running cars**.

This is an increase on the $381 per week in 2022, a jump that easily **exceeds the rising cost of living**.[xvii]

Growing **costs of car ownership** are being driven by increasing purchase prices, fuel costs, interest rates on car loans and insurance premiums.

Electric cars are much cheaper to run and can save owners between $1300 and $3700 a year in running costs.[xviii] But they are **expensive to buy**, starting at $45,000.[xix]

Annual estimated cost of owning and operating two cars:

$21,580

Australians are dedicating larger chunks of their household budget to car ownership.

But a viable and incredibly cost-effective alternative to the second vehicle has arrived. Say hello to the e-bike.

E-bikes range in price, but a good quality European-made e-bike with commuter accessories can be bought for around $5000. At a depreciation rate of 15%, this costs $750 annually.[xx]

Commuting on an e-bike 20km a day, five days a week, costs about **$20 a year in electricity**.[xxi]

An e-bike will require regular servicing and replacement of tyres, brake pads and other parts at an estimated **$300 a year**. The battery will need replacement after roughly five years, adding around **$200** to the annual running cost.

You may wish to insure your new ride, at $340 a year for comprehensive insurance.

As a regular e-bike rider, you may want to take out a Bicycle Network membership, to cover you in the event of a crash, at around $130 a year.

There are no road tolls, no parking fees, no registration.

Approximate annual estimated cost of e-bike ownership for an individual:

$1,743

Savings from swapping one car for an e-bike:

$9,047

Carbon savings, made easy

Say hello to Australia's most efficient EV.

Australia faces the significant challenge of decarbonising its transport sector to fulfil its obligations on climate change. Encouraging a shift to more active forms of travel is a key part of the solution and e-bikes are a welcome weapon in the battle.

E-bikes present us with an unprecedented opportunity to fast-track our climate ambitions and create more liveable communities.

E-bikes have huge potential to reduce emissions by replacing car trips. Globally, electric bikes are already **displacing four times as much oil** as electric cars.[xxii]

International evidence shows access to an e-bike has a significant impact on reducing car trips.

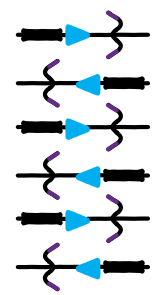
Studies on a number of European countries show more than 50% of e-bike trips are replacements for car trips.[xxiii]

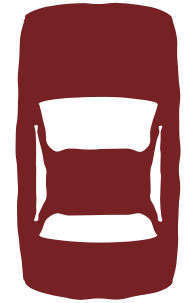
A 2022 study in the UK found that e-bikes have the capability to reduce car CO2 emissions by 24.4 million tonnes each year.[xxiv]

In Australia, most car journeys in capital cities each day are **under 5km**.[xxv]

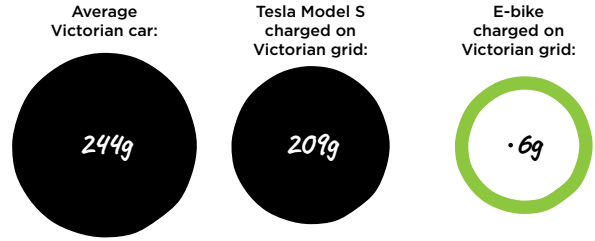
In Victoria, half of all journeys under 2km each day are driven. That's **2.2 million car trips** that could be covered on an e-bike in **less than 10 minutes**.[xxvi]

E-bikes produce **40 times less emissions** than a car and take up less than **one sixth of our public space**.[xxvii]





E-bikes also **emit far less than electric cars**.
Grams of carbon emitted per person per km travelled:



Research has shown that when food consumption is factored in, e-bikes generate **even less carbon emissions than traditional bicycles**, due to the calories that go into each pedal stroke.[xxviii]

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