



# Net Zero 2050 Transition Statement



## Acknowledgement of Country

The Government of Western Australia acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

## OUR NET ZERO 2050 **TRANSITION STATEMENT**

We are committed to achieving Net Zero by 2050, doing our part in tackling climate change and making our corporate operations future-ready.

- We will support the Whole of Government 2030 Greenhouse Gas (GHG) emissions reduction target of 80 per cent below 2020 levels and will achieve emissions reduction on our Scope 1 and 2 emissions by actively reducing emissions as quickly as possible
- Lower operational emissions through electrification and energy efficient activities
- Contribute and support the transition to renewable energy in all aspects of our business.

Our aim is to achieve further emissions reduction by adopting proactive policies and Whole of Government initiatives including:

- Seeking alternatives to and transitioning away from significant materials with high carbon intensity where appropriate
- Collaborate with our supply partners and others to work towards decarbonising road projects and construction activities to the extent possible
- Work with Portfolio partners to lower emissions from the road network (support initiatives that enable the transition of road users to net zero).
- Developing A Net Zero Transition Roadmap setting our path to 2050.



## OUR NET ZERO 2050 **TRANSITION ROADMAP**

The WA Climate Policy requires all Government organisations to develop and implement plans to transition towards the State Government target of net zero GHG emissions by 2050 and support the interim Whole of Government target of 80% emissions reduction over 2020 levels by 2030 for Scope 1 and Scope 2 emissions.

**Main Roads' Net Zero 2050 Transition Roadmap** is a key strategic document that will drive our efforts in achieving 2030 and 2050 emissions reduction targets, meet legislative obligations and provide an overall framework to decarbonise our operations and support the Government's climate action and emissions reduction goals. The Roadmap defines desired outcomes, key actions, and maps potential pathways for us to achieve Net Zero by 2050.

The Roadmap is centred around **four key actions** and **five outcomes** outlined in the Net Zero Transition Framework with a vision to support the Whole of Government 2030 emissions target and reach Net Zero by 2050. The key actions provide targeted and differentiated interventions, addressing the largest sources of emissions within our operations. These actions were developed through consultation with business units based on current available data.



We will address our Net Zero Transition by adopting the following framework.

## VISION

**Support the Whole of Government 2030 emissions reduction target of 80 per cent below 2020 levels and be Net Zero by 2050**

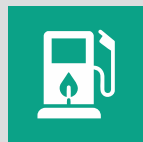
## ACTIONS



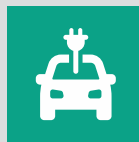
## OUTCOMES



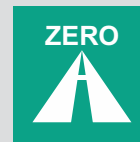
**Reduce energy consumption**



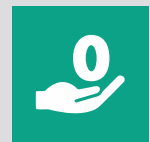
**Reduce fossil fuel consumption**



**Transition to green assets**



**Make Net Zero road projects feasible**



**Build Net Zero capabilities**

## COLLABORATION AND ENABLERS



### Net Zero in our context

Our scope 1 and 2 emissions profile have three main contributors:

- Streetlighting
- Maintenance and vehicle fleet
- Buildings and depots

Within this Roadmap, there is a specific focus on taking action to improve the energy efficiency of our streetlighting network, through the adoption of LEDs technology, and to work towards electrifying our maintenance and commercial vehicle fleets. Our maintenance fleet is currently transitioning in-house (due to be fully in-house by the end of 2024) but has been included now as an area of focus.

An emissions reduction hierarchy approach was adopted to analyse and prioritise various strategies in

response to their emission sources (from demand reduction measures

to off-site decarbonisation programs; with evaluation of their respective risk levels and potential payback), including identifying hard-to-abate measures.

The greatest opportunity of Net Zero transition lies in three key intervention packages:

1. Streetlight LED Replacement Program
2. Plant and Fleet Electrification Program
3. Green Depots Program
4. Net Zero Innovation Program.

The upgrade to LED is a significant program of work and requires substantial time and resources to deliver. To electrify our various fleets, we are dependent on model availability and technology development in the face of global competition and limited supply as other jurisdictions are undertaking similar decarbonisation activities.

## Actions in detail

The Net Zero Transition Roadmap covers a period of 7-10 years for implementation of the following



# 1.

### Streetlight LED Replacement Programme

A significant supporting action for the transition to Net Zero lies in the replacement of the existing HPS street lighting with energy efficient LED. LED lighting technologies have matured rapidly and are being adopted widely, it is imperative to drive the large-scale deployment of LED street lighting as early as possible to harness energy savings and other non-energy benefits. The replacement will also provide a strong case for futureproofing of network assets, leading to significant sustainability benefits.

# 2.

### Plant and Fleet Electrification Programme

Plant and fleet will remain a major contributor to our emissions profile until 2030. Significant barriers exist for reducing emissions from fleet and plant equipment for maintenance and corporate operations, such as the lack of suitable electric vehicle (EV) models, the long turn over time and cost of charging infrastructure which may require significant building upgrades.

A two-prong approach is proposed to address emissions reduction within this category:

- I. Establish a policy to introducing electric trucks and plant items into our fleet
- II. Leverage national EV strategies and Whole of Government collaboration for EV procurement.

The Roadmap also explores opportunities arising from changing operation models, including the transition of maintenance fleet to in-house operations which may help to reduce the size of plant and fleet and improve operational efficiency.

# 3.

### Green Depots Programme

A focus on our depots and properties will address a key emission source and, at the same time, present a unique opportunity due to the well-established technology solutions available in this space. The Roadmap includes a concept of Green Depots with an aim to transform our depots into energy neutral or positive facilities through adoption of solar power and energy efficiency improvements.

# 4.

### Net Zero Innovation Programme

Beyond corporate emissions, the Roadmap takes steps to identify opportunities and begin the consideration of how we can transition Scope 3 emissions including interventions that target our industry and continue to support developing our own capability. The Net Zero Innovation Program facilitates undertaking studies and pilot projects, such as planning design guides, technical specifications for recycled materials to address embodied carbon, trials on smart solutions utilising AI to improve network operations and alternative fuels for fleet, to name a few examples. It is also intended that this program will assist pushing boundaries for scope 1 and 2 initiatives, through tackling hard-to-abate items and building our own staff capabilities. This program will proactively be seeking other avenues and opportunities to discover additional ways to achieve the desired target outcomes.



## Enablers

Enabling mechanisms are essential to delivering the Roadmap with measurable outcomes. They include governance structures, key performance indicators, reporting, monitoring, awareness raising and staff training. The Roadmap includes an overview of these enablers and indicators.

## Maximising Whole of Government programs

There are a number of Whole of Government activities that are anticipated to occur, which will provide value for all government agencies including Main Roads. Our approach to carbon offsetting, procurement of renewable energy and emissions reporting will be guided by such activities.

We will work closely with external agencies including Department of Water and Environmental Regulation, to explore Whole of Government opportunities. In addition we will be proactively driving electrification within our fleet and making our operations Net Zero ready. We will also explore opportunities on possible renewable energy policies.

## Transport Portfolio Governance Council

The Department of Transport encourages and supports agencies' approaches to be aggregated and best value, least cost of abatement initiatives to be identified. Progress reporting will be conducted in line with WA government requirements which are currently in development.

## Conclusion

This Roadmap is aligned with WA's Climate Policy tools and similar initiatives that are being driven by the Commonwealth. Our strategic direction "Keeping WA Moving" has identified Net Zero Emissions and Decarbonisation as one of our strategic initiatives meaning it is a priority area that is helping to shape our future direction.

It identifies opportunities and challenges and outlines practical actions that will keep us on the pathway to Net Zero and will guide future investment and policy development to drive the Net Zero transition of our operations.

