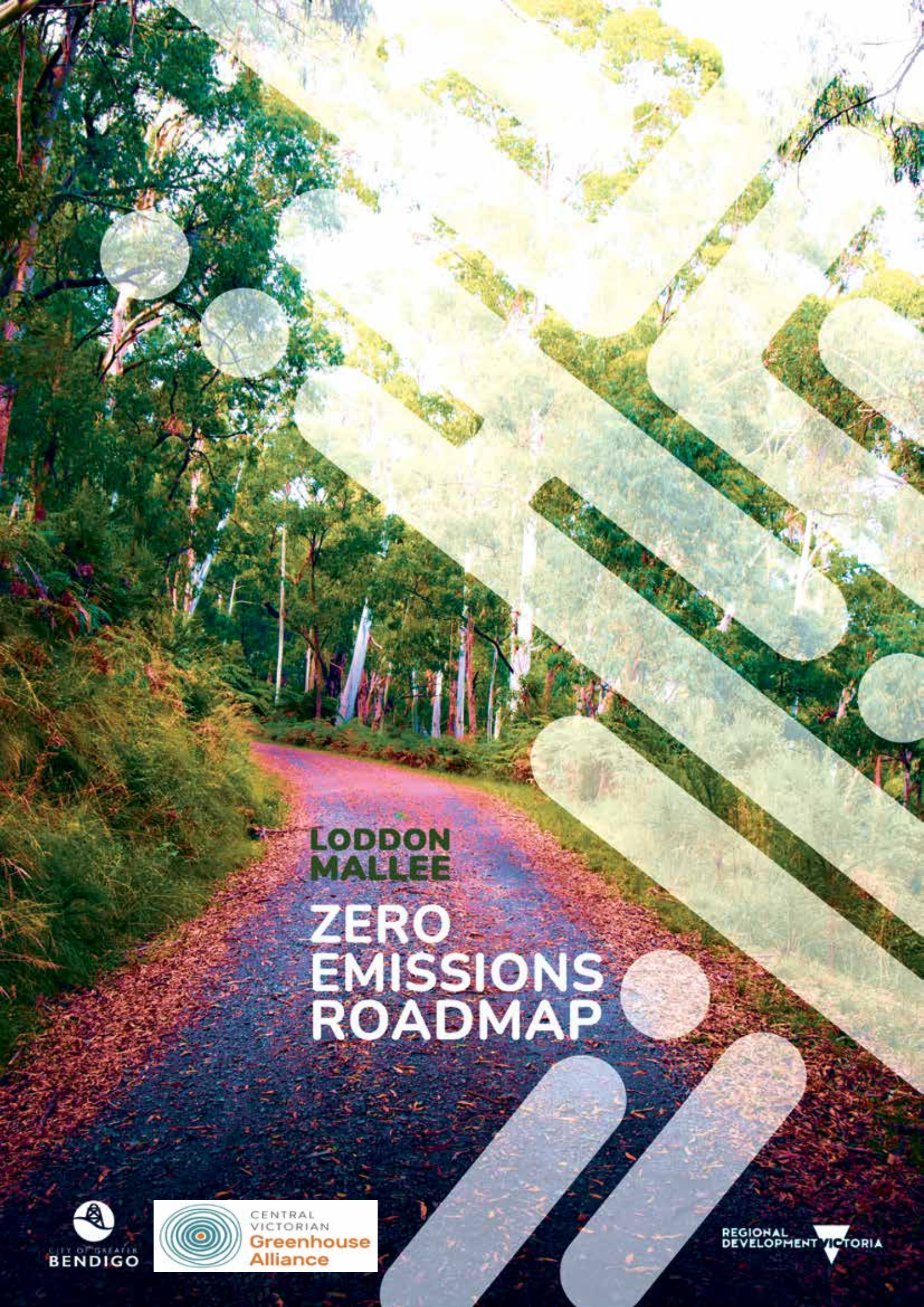

LODDON
MALLEE
ZERO
EMISSIONS
ROADMAP
CITY OF GREATER
BENDIGO
CENTRAL
VICTORIAN
Greenhouse
Alliance
REGIONAL
DEVELOPMENT VICTORIA

Executive Summary

Climate change is already having an impact on the Loddon Mallee region and the need to reduce greenhouse gas emissions is more urgent than ever. The region is already a leader on climate action and has the potential to become one of Australia's first regions to reach net zero emissions. This ambition creates a range of new economic, social and cultural opportunities.

The Loddon Mallee Zero Emissions Roadmap identifies key regional initiatives that will help our region transition to net zero emissions. In particular it focusses on investing in and strengthening human capacity in our region rather than identifying specific infrastructure that may be needed to support the transition to zero emissions.

This Roadmap has been undertaken through a collaboration between the City of Greater Bendigo, the Greater Bendigo Climate Change Collaboration, the Central Victorian Greenhouse Alliance, and Regional Development Victoria. It incorporates the outcomes of a range of stakeholder engagement activities conducted across the region throughout 2022-2023.

The objectives of the Roadmap are to

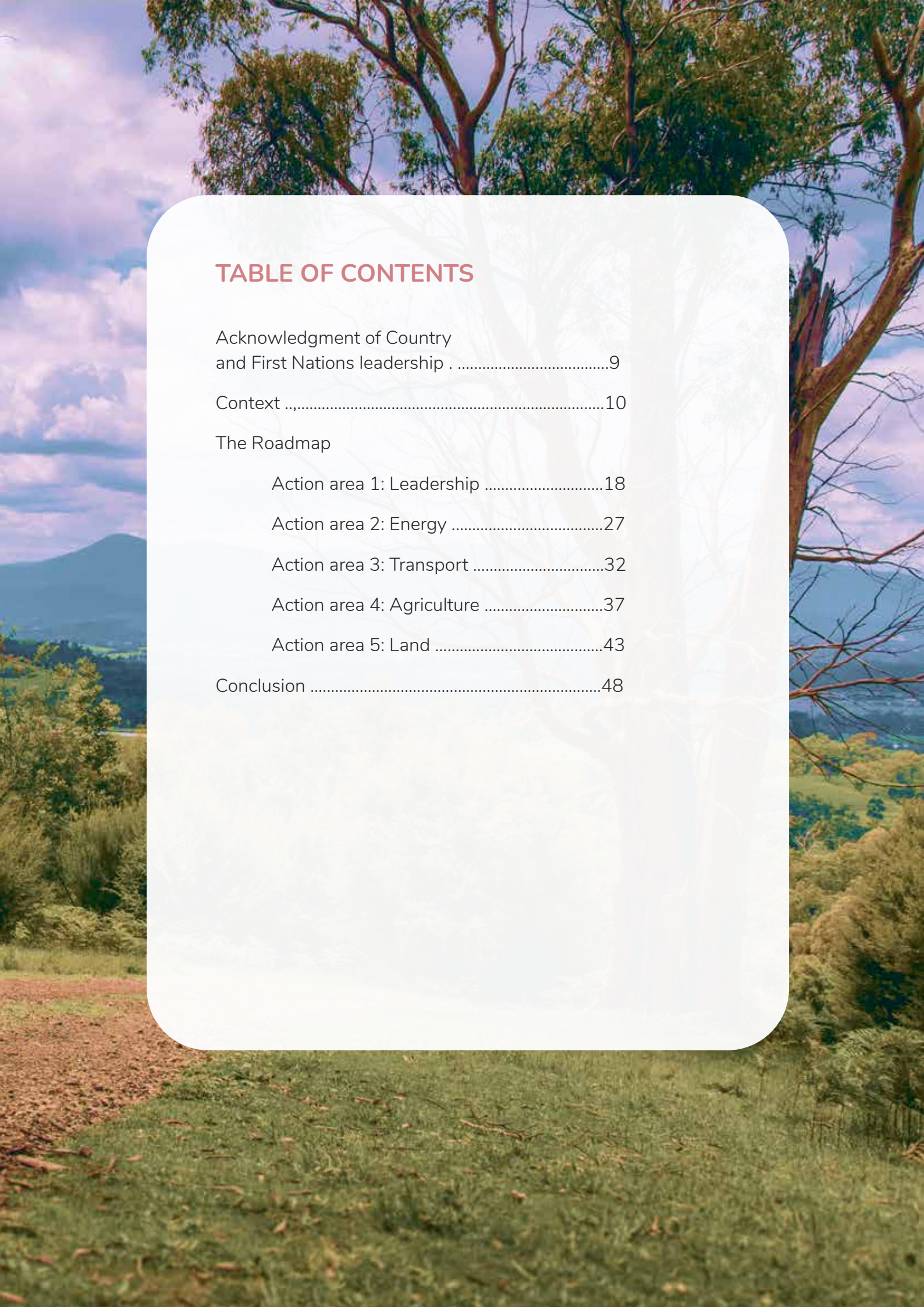
i) **improve collaboration**; doing things together so we don't need to do them separately and reinvent the wheel
ii) **achieve economies of scale**; spread outcomes to shires and communities that have less resources or capacity to take action locally
iii) **achieve equitable outcomes**; ensure that the transition to zero emissions has an equity lens and that no one in the region gets left behind.

The Roadmap is structured into 5 key action areas, each with flagship initiatives. Achieving net zero emissions requires a multitude of projects, policies and changes in practices across multiple scales, actors and stakeholders. We recognise that there is no silver bullet or quick fix to the problem of climate change. Nonetheless we have focussed in on key action areas where boosting capacity could help to unlock significant emissions reductions in our region. The following table summarises the Roadmap.

The success of any regional strategy or roadmap relies on ensuring there is adequate resourcing and good governance to help drive and facilitate initiatives over time. This Roadmap has identified existing and new regional structures can be developed to support the roadmap implementation. Action area 1 is focussed on ensuring that the Roadmap is able to support ongoing climate action across the region.

Our region has a long history of strong and bold climate action and this Roadmap builds on that good work. Individuals, communities and local councils have historically been leading the way, testing and trialling innovative ideas to reduce emissions. Our region already has great regional networks and agencies that have been working to scale action over the past two decades. This Roadmap will help our State and Federal government understand what the priority issues and opportunities are that matter most to our region. It also helps to coordinate action across multiple levels.

Action area	Objective	Flagship Initiatives	Estimated cost
1. Leadership / collaboration	Our region leads the way in emissions reductions through enhanced collaboration and coordination and support for First Nations leadership and self-determination.	Regional facilitators	$600,000
		Loddon Mallee Climate Fund	$40,000
		Loddon Mallee Climate Taskforce Establishment	$40,000
		Local Climate Action Planning	$500-750K over 3 years
		Regional Zero Emissions Economic Opportunities Analysis	$50,000
2. Energy	Our region accelerates the energy transition and ensures that no one gets left behind	Home Energy and Resilience Service	$2M plus grants / rebates
		Business Emissions Reduction Service	$1M
3. Transport	Our region transitions to a zero net emissions transport system that everyone can access	Sustainable transport planning shared service	$900,000
		Heavy Vehicle Fleet Transition Network	$150,000
4. Agriculture	Our zero net emissions food and fibre production is world leading	Extending farmer support	$1M
		Farmer emission reduction grants	$10M over 3 years
5. Land	Our regional environment is regenerated and maximises carbon sequestration whilst delivering other co-benefits	Local carbon offsets	$470K
		Local seed for the future	$5M



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ACKNOWLEDGEMENT OF COUNTRY AND FIRST NATIONS LEADERSHIP

The Roadmap acknowledges the Traditional Owners of the Loddon Mallee region and pays respect to elders past, present and emerging. With an Aboriginal population of 6,702 the Loddon Mallee region accounts for approximately 14% of Victoria's total Aboriginal population. The region includes the people of the Dja Dja Wurrung, Taungurong, Wurrundjeri Woi Wurrung, Wadawurrung, Eastern Maar, Wotjobaluk, Jaadwa, Jadawadjali, Jupagulk, Wergaia, Wamba Wamba, Tatti Taitti, Waddi Waddi, Barapa Barapa, First Peoples of the Millewa-Mallee, Latji Latji, and Ngintait Peoples.

Several First Nations organisations in the region have identified climate action in their Country Plans and strategies. For example, the Dja Dja Wurrung Aboriginal Clans Corporation and the Barengi Gadjin Land Council have recently released Renewable Energy Strategies, while the Dja Dja Wurrung have also launched their climate strategy "Turning Wrong Way Climate Right Way" and Galk Galk Delkynya Forest Gardening Strategy. These strategies set an important vision for parts of the Loddon Mallee and surrounding regions including identifying work that facilitates carbon storage and introducing native plants into agriculture.

This Roadmap seeks to build on and support this work, ensuring alignment with self-determination and the rights of First Nations custodians. The Roadmap identifies ways in which Country Plans and First Nations leadership can be supported to determine the direction of climate action in the region.

CONTEXT

Purpose and audience

The Loddon Mallee Zero Emissions Roadmap identifies five priority action areas to enable our region to achieve zero emissions as soon as possible. Rather than focussing on big ticket infrastructure items this Roadmap has focussed on investing in and strengthening human resource capacity in key areas to unlock emissions reductions. Through the development of a regional governance model the Roadmap aims to attract investment in future projects and initiatives that can help to scale climate action.

Scope

This Roadmap provides direction for emission reduction priorities for the Loddon Mallee Region. While some projects support climate adaptation and community resilience outcomes as well, other documents such as ADAPT Loddon Mallee Climate Ready Plan provide direction for adaptation priorities for the region.

Where appropriate, opportunities for collaboration will be sought with other neighbouring regions and networks such as the Grampians New Energy Task Force, and the broader network of Victorian Greenhouse Alliances as projects are scoped and implemented.

The region

The Loddon Mallee region is made up of 10 local government areas from the Central Highlands through to the Murray River and up into the Mallee. These LGAs include the shires and cities of Macedon Ranges, Mount Alexander, Central Goldfields, Loddon, Greater Bendigo, Campaspe, Gannawarra, Buloke, Swan Hill and Mildura.

The Roadmap was originally conceived to apply to the local government areas within the Central Victorian Greenhouse Alliance (CVGA) and the Loddon Campaspe Regional Partnership regions. These regions overlap with the exception of the Shire of Campaspe which is within the Goulburn Murray Climate Alliance rather than the CVGA.

Councils in the Grampians region are also part of the Grampians New Energy Taskforce which has developed the Grampians Regional Roadmap to Net Zero Emissions. As a result, this Roadmap focuses on providing direction for the Victorian Government Loddon Mallee Region which does not have a similar regional coordination body or regional emissions reduction plan.

The various government and greenhouse alliance regions relevant to this Roadmap are outlined in Table 1 below.

Local government	Greenhouse Alliance	Regional Partnership	DEECA Regions	Grampians New Energy Taskforce
Mildura	CVGA	Mallee	Loddon Mallee	
Swan Hill	CVGA	Mallee	Loddon Mallee	
Gannawarra	CVGA	Mallee	Loddon Mallee	
Buloke	CVGA	Mallee	Loddon Mallee	
Loddon	CVGA	Loddon Campaspe	Loddon Mallee	
Greater Bendigo	CVGA	Loddon Campaspe	Loddon Mallee	
Mount Alexander	CVGA	Loddon Campaspe	Loddon Mallee	
Central Goldfields	CVGA	Loddon Campaspe	Loddon Mallee	
Macedon Ranges	CVGA	Loddon Campaspe	Loddon Mallee	
Campaspe	Goulburn Murray	Loddon Campaspe	Loddon Mallee	
Hepburn	CVGA	Central Highlands	Grampians	Yes
Ballarat	CVGA	Central Highlands	Grampians	Yes
Pyrenees	CVGA	Central Highlands	Grampians	Yes
Ararat	CVGA	Central Highlands	Grampians	Yes

TABLE 1: *Existing regional boundaries across the Loddon Mallee and neighbouring areas*

Existing Targets and Initiatives

The Roadmap does not set a specific target for getting to net zero other than acknowledging the urgency and need to transition the region as quickly as possible to net zero. Many organisations in our region such as local governments, water authorities and communities have already set ambitious net zero targets for the next 5-15 years and are working on a range of programs and initiatives to reach these targets. In addition, the Victorian and Federal Government have a range of targets and initiatives that will help our region also reach net zero through collaboration (see Table 2). The Roadmap aims to support and where possible accelerate these ambitions.

	Federal	State	Local governments	Community / regional
Emissions reduction or net zero targets	43% below 2005 levels by 2030	45-50% below 2005 levels by 2030 and achieve net zero by 2045	Currently 6 of the 10 Loddon Mallee councils have targets for their own organisation (see Appendix 1 for details)	2 LGAs in the region have net zero community targets by 2030 (Bendigo and Mt Alexander)
Key programs & strategies	> Net Zero Authority > Rewiring the Nation > Emissions Reduction Fund and the Safeguard Mechanism > Fuel efficiency standard to promote low emissions vehicles	> 95% by 2035 renewable energy target > Solar Victoria > State Electricity Commission establishment > Energy programs such as Neighbourhood Batteries and Microgrid funding > Gas Substitution Roadmap > Zero Emissions Vehicle Roadmap	> CVGA strategy and programs > Greater Bendigo Climate Collaboration > Council climate plans, programs and climate emergency declarations	> Loddon Mallee Renewable Energy Roadmap > ADAPT Loddon Mallee > First Nations Country Plans, emerging climate and renewable energy strategies and projects > Local sustainability group initiatives (eg. Warrarack Initiatives in Mount Alexander Shire)

TABLE 2: *Current targets and initiatives across the Loddon Mallee region*

History of success and collaboration

Our region has a long history of strong and bold climate action and this Roadmap builds on that good work. Individuals, communities and local councils have historically been leading the way, testing and trialling innovative ideas to reduce emissions. Our region already has great regional networks and agencies that have been working to scale action over the past two decades.

Some of the key highlights for the region include:

> All Loddon Mallee councils are active members of the Central Victorian Greenhouse Alliance which has been delivering innovative regional projects and advocacy for emissions reduction for more 20 years.

> All Loddon Mallee councils use 100% renewable energy for their own operations through the Victorian Energy Collaboration.

> Through CVGA, councils have delivered the largest streetlighting retrofit project in Australia and the largest local government owned electric vehicle charging network.

> First Nations leadership on climate action through Country Plans and emerging climate and renewable energy strategies, strategies such as the Barengi Gadjin Renewable Energy Strategy, Dja Dja Wurrung Climate Change Strategy Turning Wrong Way Climate Right Way, Nyaywi Mutjeka Renewable Energy Strategy, and Galk-Galk Delkunya Forest Gardening Strategy.

>Aboriginal Energy projects led by Barengi Gadjin Land Council Aboriginal Corporation, Dja Dja Wurrung Clans Aboriginal Corporation, First People of the Millewa-Mallee Aboriginal Corporation, Taungurung Land and Waters Aboriginal Corporation, Wadawurrung Traditional Owners Aboriginal Corporation, Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation, and Yorta Yorta Nation Aboriginal Corporation, funded through the Traditional Owner Renewable Energy Program (TOREP)

> Home to a range of community energy and sustainability groups leading the way on emissions reductions (e.g. Loddon Mallee Regional Advisory Group (formerly the Community Power Hub), Bendigo Sustainability Group, Macedon Ranges Sustainability Group, Mount Alexander Net Zero Working Group, Goldfields Sustainability and Renewable Energy Groups, Sustainable Living in the Mallee and others).

> Community energy projects such as the Newstead Solar Farm led by Renewable Newstead, and the More Australian Solar Homes Program which has assisted more than 1700 households and 17 community groups and schools across the region to install rooftop solar PV systems.

The case for action

Climate change is already happening and having impacts across the Loddon Mallee. The region is projected to experience a hotter and drier climate in coming decades, with severe implications for human health, livelihoods, regional economies and the environment. Taking immediate and drastic action to reduce greenhouse gas emissions has never been more important. Everyone and every organisation and business in the region has a part to play in helping to reach net zero.

Acting on climate change also creates significant opportunities for our region to address multiple economic, social and environmental challenges. Our region is well placed to become one of the first regions to reach net zero, thereby attracting investment and helping to encourage other regions to accelerate their own ambitions. This leadership is an important component of this Roadmap.

Greenhouse gas emissions in the region

The Loddon Mallee region creates greenhouse gas emissions across a variety of sectors. At a high level, an estimate of greenhouse gas emissions for the whole region is approximately 6,049,000 tonnes of CO2 equivalent. The breakdown of emissions across different sectors is shown in Figure 1.

LODDON MALLEE EMISSIONS BY SECTOR

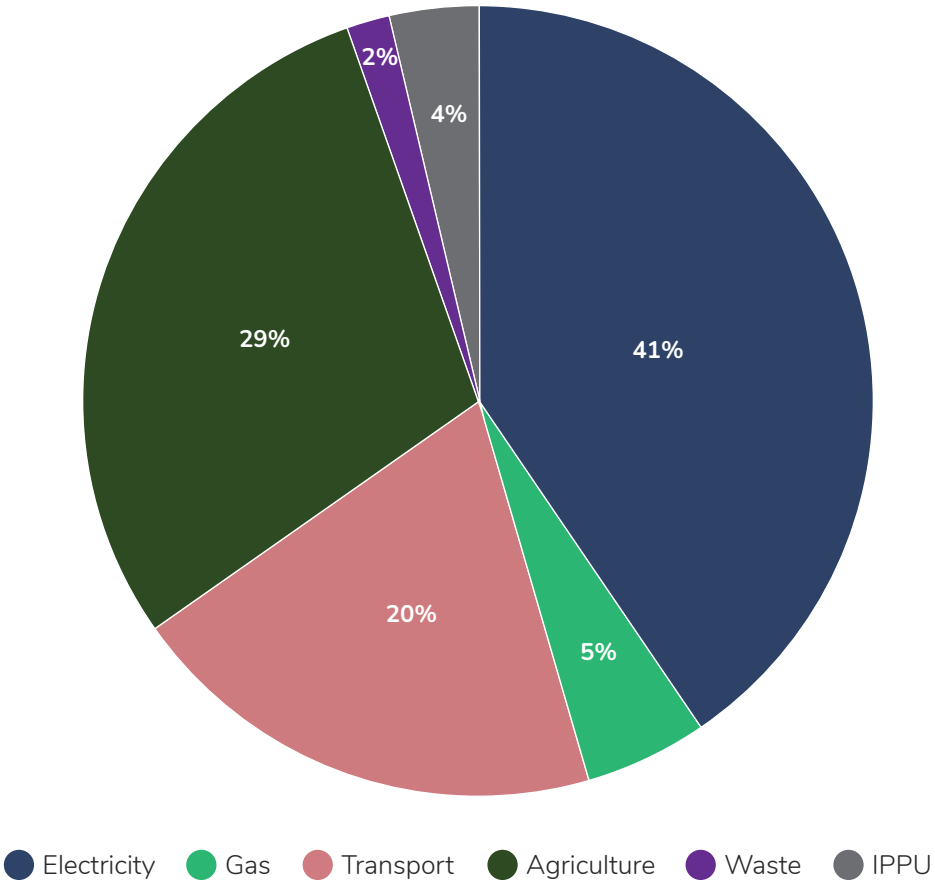


FIGURE 1: *Greenhouse gas emissions (tCO2-e) by sector across the Loddon Mallee in 2020/21 (n.b. IPPU represents Industrial Processes and Product Use) (Data source: Snapshot Climate*)*

***** *Snapshot Climate is a national inventory of greenhouse gas emissions for every local government area. It uses a common framework to allow for comparison between regions. All the local profiles add up to the national emissions total, meaning that no emissions go unaccounted for. Some local councils and communities may use slightly different datasets in which case not always reflect the same proportions.*

The region's major emissions source is electricity use accounting for 41%. The majority of this comes from industrial consumption, followed by residential (household) consumption, and commercial (business) consumption. Gas use accounts for a further 5% of the region's emissions, coming primarily from residential (household) consumption.

The region's second largest source of emissions is agriculture (29%), coming largely from the dairy, meat, and livestock sectors, followed by hay and silage, and other crops. In some of the region's smaller rural shires, agriculture accounts for as much as 74% of municipal emissions.

Transport is the third largest sources of emissions in the region (20%). Close to two thirds of transport emissions come from automotive (passenger) vehicles. On-road freight accounts for just over a third of transport emissions.

Many sectors emissions are interrelated, for example as the transport sector electrifies over time, emissions from petrol and diesel will decrease while emissions from the electricity sector may increase. Nonetheless the data does provide some guidance as to the key areas for concentration in this Roadmap.

The following section identifies the 5 key action areas and associated initiatives to help our region reduce its emissions to zero as soon as possible.

The Roadmap

The following section sets out 5 action areas of focus for the region to reduce greenhouse gas emissions. These areas are chosen based on a range of community and stakeholder consultation activities while taking into account the emissions profile for the region. The areas also reflect the regional knowledge and understanding of existing programs and initiatives that can be built upon, the history of actions and areas that have traditionally been difficult to transition, and the principles of equity, justice and collaboration.

Action area 1: Leadership

Objective: Our region leads the way in emissions reductions through enhanced collaboration and coordination, and support for First Nations leadership and self-determination.

Action area 2: Energy

Objective: Our region accelerates the energy transition and ensures that no one gets left behind.

Action area 3: Transport

Objective: Our region transitions to a zero net emissions transport system that everyone can access.

Action area 4: Agriculture

Objective: Our zero net emissions food and fibre production is world leading.

Action area 5: Land

Objective: Our regional environment is regenerated and maximises carbon sequestration whilst delivering other co-benefits.

Other areas of emissions in the region such as from waste, and refrigerants and other industrial emissions are still important but have not been a major focus of this Roadmap. This is due to the comparatively small contribution they make to the region's emissions profile and the existing state and federal government initiatives and collaborative work occurring in the circular economy sector. The Roadmap emphasises that other areas should continue to transition to net zero and is supportive of the broader environmental and climate benefits that come from a shift to a circular economy.

Initiatives

Each of the 5 action areas have identified flagship initiatives for the region to pursue. Tackling climate change and reducing greenhouse gas emissions requires a diverse mix of actions and initiatives, rather than a few big individual projects. As such we recognise that in addition to the flagship initiatives each action area has a range of advocacy, knowledge sharing and other actions that need to continue. Whilst the Roadmap implementation will focus on the key flagship initiatives, it is important that it also supports, guides and facilitates ongoing action across multiple levels.

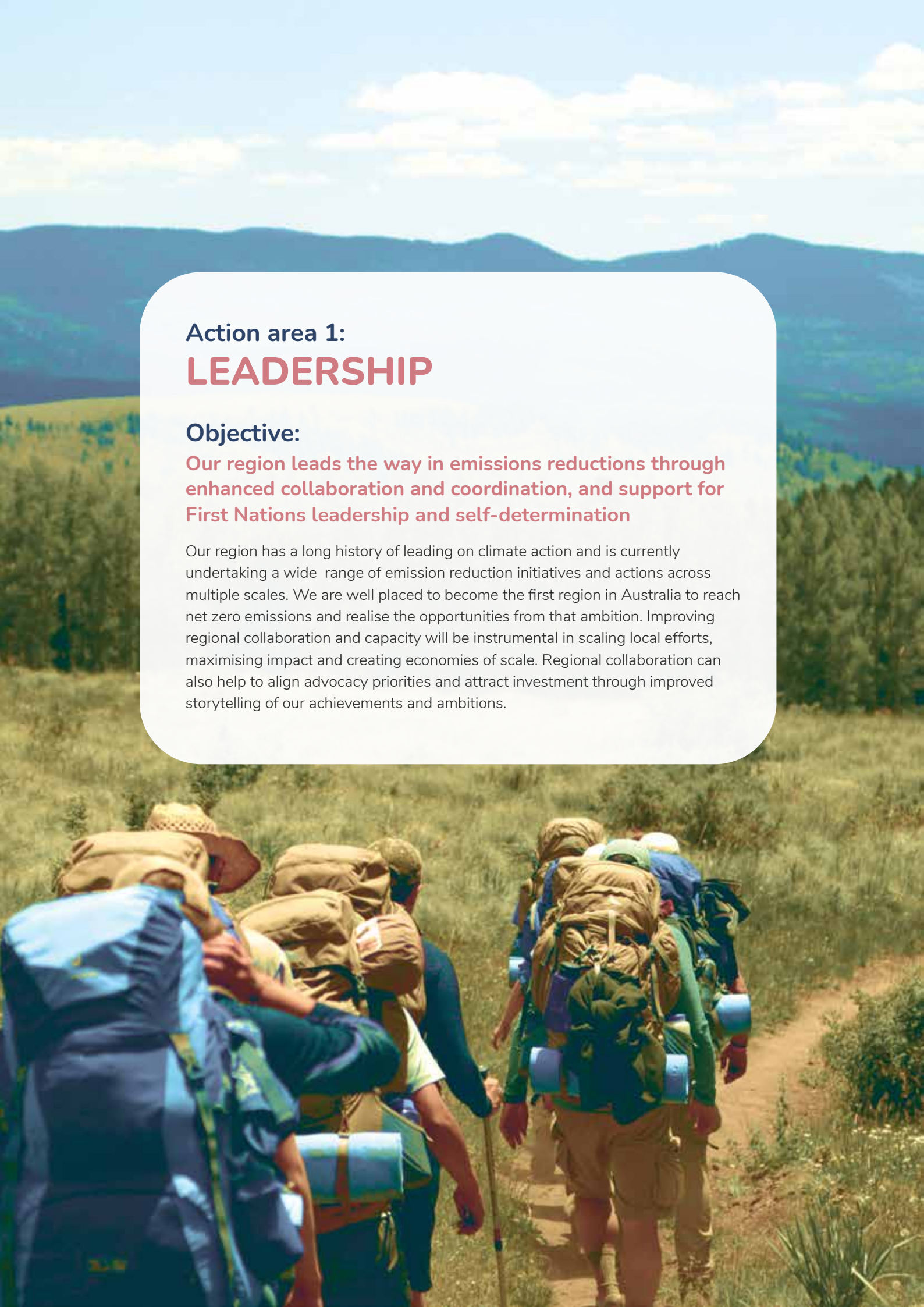
Action area 1:

LEADERSHIP

Objective:

Our region leads the way in emissions reductions through enhanced collaboration and coordination, and support for First Nations leadership and self-determination

Our region has a long history of leading on climate action and is currently undertaking a wide range of emission reduction initiatives and actions across multiple scales. We are well placed to become the first region in Australia to reach net zero emissions and realise the opportunities from that ambition. Improving regional collaboration and capacity will be instrumental in scaling local efforts, maximising impact and creating economies of scale. Regional collaboration can also help to align advocacy priorities and attract investment through improved storytelling of our achievements and ambitions.



What is happening already

> CVGA

The Victorian Greenhouse Alliance is a best practice model for regional climate change governance and collaboration. The alliances now operate across many regions in Australia but were initiated in our region with the formation of the Central Victorian Greenhouse Alliance (CVGA) in 2000. Over 20 years the CVGA has delivered projects, advocacy and knowledge sharing activities in our region.

> FRRR

The Foundation for Rural and Regional Renewal (FRRR) currently administer the Central Victorian Regional Grants Fund which provides grants for local projects within Central Victoria, including for climate mitigation and adaptation initiatives.

> Cross-council collaborations

A number of local councils are already collaborating on regenerative agriculture and carbon offsetting projects, and a number of communities are working on a range of community transition plans and initiatives (eg. Warrarack)

> Greater Bendigo Climate Collaboration

The Greater Bendigo Climate Collaboration has brought together government, businesses and community organisations within the City of Greater Bendigo to help reduce emissions within the City. Many of these organisations play a role across the region.

> First Nations climate leadership

Traditional Owner Corporations in our region are already leading the way on climate action through Country Plans and emerging climate change and renewable energy strategies. 1. Groups in our region are working with the First Nations Clean Energy Network (FNCEN) and other collaborative opportunities may include the Indigenous Carbon Industry Network and Federation of Victorian Traditional Owner Corporations.

> Grampians New Energy Task Force

Outside the Loddon Mallee, the Grampians New Energy Task Force has been formed to deliver zero emissions outcomes for the Grampians region and has produced roadmaps for “Community Energy”, “Broadacre Agriculture” and “Energy as an Enabler”.

> Community benefit sharing

CVGA has received funding from DEECA for an Energy Leadership Program to build the capacity of local leaders to advocate for best practice community benefit sharing outcomes in the region, working towards a regional benefit sharing policy / statement of expectations.

> Victorian Government

The Victorian Government are in the early stages of preparing a coordinated and consistent approach to community benefit sharing from transmission and large scale renewable energy projects. This could result in the establishment of state-wide policies, processes and funding mechanisms.

What we heard

> Building stronger collaboration across government, community and the private sector is critical for achieving the region's ambitions.

> More capacity and resources are needed to support backbone entities to drive collaboration and coordination.

> Opportunity exists to collectively leverage investment across the public and private sector for local climate action, including community benefit contributions from renewable energy and transmission line developments.

> Large-scale solar developments must deliver community benefits to build and maintain social licence. Communities need to establish community engagement and benefit sharing policy positions in preparation for large scale transmission line, solar and wind developments in the region to be Renewable Energy Zone ready.

> The rights and ambitions of First Nations communities should be reflected and elevated in regional renewable energy policy positions. Support for all Traditional Owner Corporations (TOCs) and groups across the Loddon Mallee region to come together to inform the development of regional strategies and statements is a key consideration. The Central West Orana region's First Nations Guidelines provides one example that could be drawn on.

> While some TOCs in the region have funded roles to develop policy positions and guide engagement with internal and external stakeholders on climate and renewable energy, may groups don't, and funding for existing positions is not ongoing. Ensuring adequate and ongoing resourcing within each TOC and group across the region is critical to enable each group to develop positions and engage with external stakeholders. This is a key starting point and precursor to any regional coordination roles or mechanisms (such as a facilitator).

1. Regional Roadmap Project Manager and First Nations Facilitator

Rationale

Improving collaboration and coordinating the implementation of this Roadmap will require additional engagement with industry, local and state governments, community and non-government organisations as well as development of feasibility studies, business cases and funding proposals. No organisation is currently resourced to complete this work.

A Roadmap Project Manager could be responsible for:

> Administering the Loddon Mallee Climate Taskforce (see details below)

> Project planning and stakeholder engagement to progress the projects in the Roadmap

> Preparing business cases and funding applications

> Management and delivery of the projects in the Roadmap

> Liaising with the DEECA Aboriginal Partnerships Team, Federation of Victorian Traditional Owner Corporations, and First Nations groups to discuss resourcing needs and co-design of an appropriate mechanism to support First Nations leadership, coordination and engagement across the region.

In addition to an overall Roadmap Project Manager, a dedicated First Nations Facilitator role could be further explored and tested with TOCs and other First Nations groups across the region. This role could also work to help First Nations groups progress Country Plans, realise their climate strategies, and renewable energy goals, ambitions, identifying and facilitating opportunities for broader regional collaboration and joint advocacy, and help to inform the Regional Roadmap and its implementation.

A First Nations Facilitator could be responsible for:

> Bringing Traditional Owner groups together to work on collaborative projects and identify shared advocacy initiatives

> Progressing collaborative projects and initiatives on behalf of participating Traditional Owner groups

Objectives

Progress development of the projects listed in this Roadmap through to implementation and support the creation of the Loddon Mallee Climate Taskforce (see details below).

Funded Components

> Loddon Malle Zero Emissions Roadmap Project Manager

> Loddon Mallee First Nations Regional Climate Facilitator

Potential project partners

Central Victorian Greenhouse Alliance (lead) is a natural fit for hosting the role of the Roadmap Project Manager given its history, existing structure and coverage of the region. Alternatively, the Department of Energy, Environment and Climate Action (DEECA) could also host the Project Manager from their Loddon Mallee regional office. The First Nations Regional Climate Facilitator could sit within existing First Nations organisations and networks, or within the CVGA or DEECA.

Next Steps

1. Recruitment of Project Manager and Facilitator

Approximate cost

> Loddon Mallee Zero Emissions Roadmap Facilitator 0.8 - 1 FTE, 3 years ($300,000)

> Loddon Mallee First Nations Regional Climate Facilitator 0.8 - 1FTE 3 years ($300,000)

2. Loddon Mallee Climate Fund

Rationale

An independent funding mechanism with an inter-organisational governance structure is required to deliver projects and programs with a regional scale. The development of a regional fund could help to channel funding from renewal energy projects, corporate contributions and community donations towards local and regional projects that help to achieve the objectives of this Roadmap.

To ensure that funds are obtained and channelled equitably across the region a new governance body is likely to be needed (see details below about a proposed Taskforce).

The role of the Loddon Mallee Climate Fund could be to:

> Hold community benefit contributions from transmission and renewable energy projects in the region
> Hold donations from the corporate sector and the general public
> Fund local and regional community benefit sharing projects
> Fund community organisations to implement emission reduction and climate adaptation projects
> Provide seed funding for community owned renewable energy projects
> Fund large scale legacy projects from this Roadmap

Multiple funds may be required to achieve these multiple objectives.

A Regional Community Benefit Sharing Policy and Funding Guidelines will be needed to guide decisions about the collection and allocation for funds from transmission and renewable energy projects.

Objectives

Establish a regional fund to receive financial contributions from the public and private sector and redistribute funds to priority emission reduction and climate projects.

Components

> Loddon Mallee Climate Fund/s and associated administration
> Regional Community Benefit Policy and Funding Guidelines

Potential project partners

> Loddon Mallee Climate Taskforce (see below)
> Local governments in the Loddon Mallee region
> DEECA
> RDV
> CVGA
> Traditional Owner Corporations
> Key businesses, regional peak bodies, education institutions, non-government organisations and community groups.
> FRRR
> VicGrid

Next Steps

> Stakeholder engagement
> Loddon Mallee Climate Fund/s design and business case

Approximate cost

> See Loddon Mallee Climate Taskforce

3. Loddon Mallee Climate Taskforce

Rationale

A new regional governance body is likely to be needed to drive implementation of this Roadmap and govern administration of the Loddon Mallee Climate Fund.

The CVGA could fulfil an interim regional governance and delivery role, however this function does not align with the organisation's existing council-only governance structure, its inter-regional membership and its current local government focus.

The role of a Loddon Mallee Climate Taskforce could include:

> Providing direction for the Regional Roadmap Project Manager and First Nation's Facilitator
> Approving project plans, project proposals and funding applications
> Collective advocacy
> Governance of the Loddon Mallee Climate Fund

The role of a Loddon Mallee Climate Taskforce could include:

> Loddon Campaspe Regional Partnership
> Mallee Regional Partnership
> Local government
> Community sustainability groups
> Business and economic development peak bodies or committees
> Traditional Owner Corporations
> CVGA

Objectives

Establish an independent incorporated organisation for the Loddon Mallee (e.g. a Loddon Mallee Climate Taskforce) made up of key public and private stakeholders from across the region to oversee implementation of regional emission reduction projects and advocacy.

Components

> New organisation, including governance arrangements
> Executive Officer (could be fulfilled by the Regional Roadmap Project Manager
> Administrative support

Potential project partners (to progress establishment of the group)

> DEECA
> CVGA
> RDV
> Local governments
> FRRR

Next Steps

> External Feasibility and Scoping Study to confirm the broader interest, need and potential governance structure for a new Task Force.

4. Local climate action planning

Rationale

Opportunity exists for local communities to position themselves to take advantage of the energy transition and to identify initiatives that will help build their resilience to the changing climate. A clear plan of community priorities will enable communities to access funding, advocate for best practice community benefit sharing arrangements, and ensure that funding is channelled to high impact initiatives that address local wants and needs.

While some communities have robust community plans that identify their broad community needs and emission reduction and climate resilience priorities, others need assistance to conduct local engagement and identify priorities. A process of local engagement can also help build energy literacy and awareness of emission reduction and resilience actions that can be implemented at an individual, household or business scale.

Building the capacity of local leaders, including First Nations leaders, is needed in order to embed climate action within communities.

This engagement could be delivered centrally by the Victorian Government (e.g. through DEECA) or the CVGA, and Traditional Owner Corporations, or it could be delivered locally by funding local government or community organisations.

Objectives

> Facilitate delivery of local engagement where needed to help communities identify community priorities for benefit sharing, emission reduction and climate resilience initiatives.

> Through this process, build energy literacy and awareness of individual, household and organisational emission reduction and climate resilience actions.

> Train local leaders in climate action and resilience.

Components

> Delivery or funding for local engagement and action planning.

> Climate leadership training.

> Climate engagement officer/s.

Potential project partners

> DEECA

> CVGA

> Traditional Owner Corporations

> RDV

> Local governments

> FRRR

> Local community groups and organisations

Next Steps

> Develop a model for local engagement and capacity buildings.

Approximate cost

> Central delivery option - Climate Engagement Officers x 2 plus program funding - $250,000 per year, $750,000 over 3 years

> Decentralised delivery option – funding for local government or community organisations - $500,000 over 3 years

5. Regional Zero Emissions Economic Opportunities Analysis

Rationale

The global, national and regional transition to zero emissions will require the scaling up of a range of industries. Products and services likely to be in high demand include energy efficient construction materials and builders, renewable energy products, carbon accounting services, information technologies and services, electrical trades and engineering, sustainable design services, electric vehicles and associated products, sustainable agriculture products and services, revegetation services, material engineering services and circular economy industries. As such, opportunity exists to identify how the Loddon Campaspe region can capitalise on these and other current and future needs based on the region's existing industry strengths.

Objective

> Identify current and future economic development opportunities for the region to capitalise on the global and regional transition to zero emissions based on the region's current industry strengths.

Components

> Regional Zero Emissions Economic Opportunities Analysis

Potential project partners

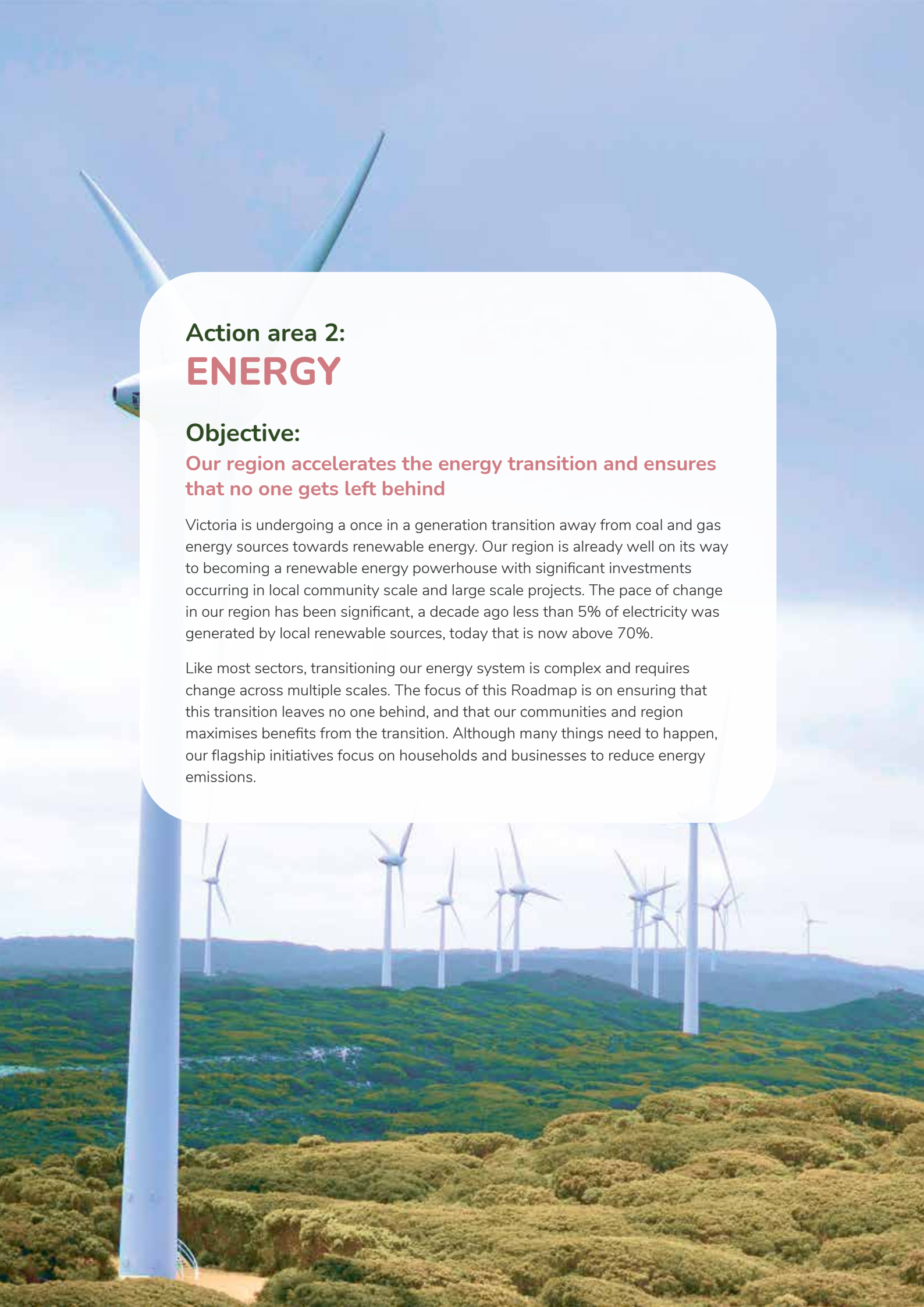
> Loddon Campaspe Regional Partnership and Mallee Regional Partnership, Regional Development Victoria, CVGA, Traditional Owner Corporations and First Nations enterprises, Local governments Zero Emissions Economic Opportunities Analysis

Next steps

> Engage a consultant to undertake the analysis

Approximate cost

> $50,000



Action area 2:

ENERGY

Objective:

Our region accelerates the energy transition and ensures that no one gets left behind

Victoria is undergoing a once in a generation transition away from coal and gas energy sources towards renewable energy. Our region is already well on its way to becoming a renewable energy powerhouse with significant investments occurring in local community scale and large scale projects. The pace of change in our region has been significant, a decade ago less than 5% of electricity was generated by local renewable sources, today that is now above 70%.

Like most sectors, transitioning our energy system is complex and requires change across multiple scales. The focus of this Roadmap is on ensuring that this transition leaves no one behind, and that our communities and region maximises benefits from the transition. Although many things need to happen, our flagship initiatives focus on households and businesses to reduce energy emissions.

What is happening already

> Renewable energy targets

The Victorian Government has set a renewable energy target of 65% by 2030 and 95% renewable electricity generation by 2035. In addition the Victorian Government has released a Gas Substitution Roadmap focussing efforts on electrification of the economy.

> Loddon Mallee Renewable Energy Roadmap

Developed in 2019 by the Central Victorian Greenhouse Alliance in consultation with regional stakeholders, the roadmap identifies seven priorities for the region to take advantage of the renewable energy transition.

> Renewable Energy Zones (REZs) and large-scale development

There is significant solar and wind potential in the region's Murray River and Western REZs. Grid connections remain a significant challenge to ongoing investment in the region. The Victorian Government is accelerating investment in transmission network upgrades in the region (WRL-VNI West) and looking to strengthen community engagement and benefit sharing through the new Victorian Transmission Investment Framework launched in May 2023.

> Distributed energy resources

A number of existing community and government programs support the uptake of Distributed Energy Resources (eg. solar, batteries, electric vehicles). These include the Neighbourhood Battery Initiative, Solar Homes, More Australian Solar Homes (MASH), virtual power plants and microgrids.

> Renewable energy contracts

Councils across the region have signed on to one of the largest Power Purchasing Agreement ever established in Australia (VECO) and are powering their operations with 100% renewable energy from a Victorian wind farm. Councils are also supporting the roll out of PPAs for businesses in the region through a Business Renewables Buying Group.

> First Nations leadership

The First Nations Clean Energy Network is conducting roundtables with Traditional Owner Corporations and groups across Victoria to inform the development of a First Nations Clean Energy Strategy, to ensure that First Nations people help drive the energy transformation and can share in the benefits of renewable energy development. Several Traditional Owner Corporations and groups across the Loddon Mallee region are delivering projects through the Traditional Owner Renewable Energy Program and developing and releasing their own climate action and renewable energy strategies.

> Electrification

Households and businesses are experiencing energy bill stress and there is a growing movement to get off gas and "electrify everything" as part of the broader transition to a cheaper, cleaner, 100% renewable grid. Local council and sustainability groups, state and federal government programs are helping households across the region.

What we heard

> Energy equity

Inequality and exclusion are a major threat to achieving zero emissions. We need to find ways to ensure all members of the community can benefit from the energy transition, including the ability to access renewable energy and make their homes more energy efficient. Low-wealth households, renters, and people living in social housing cannot afford to make the transition without support, incentives, and rebates. Current state and federal grants, rebate and incentive schemes remain inaccessible for many low income and disadvantaged households in the region, who also face barriers accessing green loan products offered through traditional financial institutions. Targeted incentives and place-based programs with a strong equity focus area needed to bridge this gap. The NILS (No Interest Loan Scheme) is another potential avenue for low wealth households to access funding for energy efficient appliances.

> Electrification and energy efficiency

We need to electrify and retrofit the region's homes for energy efficiency. There are opportunities to enhance resilience to climate change and extreme weather events through integrated 'whole-of-home' retrofit programs. Communications and engagement must be localised, tailored and appropriate for diverse communities and low-wealth homes. Households are seeking tailored information, advice and referrals from trusted local services.

> First Nations leadership

Traditional Owners want to be leaders in climate action and renewable energy and want to be engaged early as rights-holders in the development of renewable energy projects. Getting back on Country and playing a leading role in the clean energy transition is critical to self-determination.

> Collaboration

There is overlap in the renewable energy and other emissions reduction priorities identified for the Loddon Mallee and Grampians region, with opportunities for collaboration across regions.

1. Home Energy Efficiency and Resilience Service

Rationale

Certain segments of the community face significant barriers to upgrade and retrofit existing homes. A not for profit trusted facilitation and advisory service would help households in the region increase energy efficiency and resilience to climate change.

Objectives

Support households to stage and prioritise energy upgrades through access to assessments and tailored advice on retrofit options. Facilitate access to rebate and incentive schemes offered by federal, state, and local governments, and community-based programs, and provide case/ project management (coordination) assistance to low wealth households.

Components

> Project Manager and Home Energy Officers to cover the region

> A referral network of accredited Residential Scorecard Assessors (RES) and a panel of accredited installers, vetted by the program and delivery of free or subsidised RES Assessments to households

> Coordination of quotes, referrals, and installers for home upgrades

> Facilitation of access to low/no interest loans such as residential Environmental Upgrade Agreements (EUAs)

Potential project partners

> CVGA (lead), Bendigo TAFE, Federation University, Registered Training Organisations, Sustainability Victoria, DEECA, local governments, Traditional Owner Corporations, welfare organisations, community sustainability groups, scorecard energy assessors

Next Steps

> Undertake a project plan and business case for a home energy resilience service

> Work with Registered Training Organisations to offer Scorecard training in the region to meet accreditation requirements.

> Work with employment agencies and the social welfare sector to recruit participants to energy assessment training and build demand.

> Work with potential project partners on the design of a pilot retrofitting program.

Approximate cost

> 1 FTE Project Manager, 5 years, $500,000

> Home Energy Officers approximately x 3 FTE, $1.5M.

> $40,000 project set-up (contracts, communications materials, CRM and forms)

> Up to $3,000 incentive per participating ‘low wealth’ household

> Incentives to support women, CALD, and First Nations young people to undertake Scorecard training and accreditation

2. Business emission reduction service

Rationale

Small to medium sized businesses often do not have the time and financial capacity to identify cost efficient interventions to reduce their energy emissions and costs. The recent Small Business Energy Saver program delivered across the region through Sustainability Victoria and the CVGA demonstrated the importance of 'energy outreach' officers for businesses.

Many local governments in the region do not have sufficient resources to work directly with businesses, including facilitating their involvement of the Business Renewables Buying Group currently facilitated by Yarra City Council or promotion of the rebates available through the Victorian Energy Upgrade scheme.

Objectives

Support businesses to access renewable energy and energy efficiency upgrades through direct investments, rebates, and Power Purchase Agreements.

Components

2 FTE Business Energy Support Officers to provide shared services to a cluster of councils and ensure coverage across the region.

Potential project partners

Local governments

Next Steps

Develop a business case for consideration by each council.

Approximate cost

2 FTE for 5 years, $1 million

Action area 3:

TRANSPORT

Objective:

Our region transitions to a zero net emissions transport system that everyone can access

Transport is lagging behind other sectors when it comes to emissions reduction, and transport emissions are set to increase with population growth. As the energy system rapidly decarbonises, transport is set to become the region's second largest source of emissions. Achieving emissions reductions from transport is best achieved through two aspects; i) promoting public and active transport (eg. Walking cycling buses and trains) and ii) electrifying light and heavy vehicles and freight. Achieving this transition requires significant collaboration amongst different stakeholders across the planning system (eg. local and state transport planners), industry, community and businesses. This roadmap focusses on ensuring transport is accessible to all as the sector decarbonises.

What is happening already

> National electric vehicle policies
The Federal Government has released a National Electric Vehicle Strategy and is consulting on the development of Fuel Efficiency Standards to stimulate the market for the sale of EVs in Australia and to increase uptake.

> Charging infrastructure
State and federal governments are funding networks of fast chargers across the state. In the Loddon Mallee region, local governments installed Australia's largest public EV fast charging network through the Charging the Regions program.

> Green hydrogen
The Federal Government has established a $2 billion Hydrogen Headstart initiative for large-scale green hydrogen projects. ARENA is developing a revenue support program to scale up green hydrogen production. The Victorian Hydrogen Hub and Mallee Hydrogen Hub have been facilitating information sharing, education and engagement opportunities for local government and industry leaders in the Loddon Mallee region to learn about emerging hydrogen technologies and potential applications.

> Public transport
The Victorian government has reduced the cost of V/Line fares for regional travel and is supporting a state-wide trial of zero emissions buses. From 2025 all new buses in Victoria will be electric.

> Active transport
The transport sector pledge under Victoria's Climate Change Strategy includes a target for active transport to make up 25 per cent of mode share by 2030. Local governments have integrated transport strategies include investment plans for active transport.

> Minister for Public and Active Transport
The Victorian Government has recently appointed a Minister for Public and Active Transport which will help focus government policies and investment in these sectors.

> Loddon Mallee mode shift targets
The Department of Transport and Planning in Loddon Mallee is currently developing mode shift targets for the region to guide future strategic planning and resource allocation.

> Greater Bendigo Zero Emissions Transport Implementation Plan
The City of Greater Bendigo through the Greater Bendigo Climate Collaboration is collaborating with the Department of Transport and Planning to prepare a Zero Emissions Transport Action Plan which will assess the financial costs and benefits of different types of transport interventions for the Bendigo City Centre and municipality's satellite towns in terms of their contribution to achieving the council and the Victorian Government's mode shift and transport emission reduction targets. The Plan will also include an action plan of priority projects.

What we heard – opportunities and challenges

> Electric vehicles

Although uptake is increasing, cars with internal combustion engines are still being bought today and are likely to operate for the next 20 years. EVs are still currently unaffordable for many households, with limited supply in Australia, and state government incentives have been removed. Policies are needed to stimulate supply and governments need to invest in fleet transition to establish a market for second hard EVs.

> Active and public transport

Electric vehicles will not be the whole solution. Most trips are short, even in the regions, so could be made by other transport modes. We should be doing more with less. Many people want to be able to access services and meet most of their daily needs within a 10-20 minute walk or bike ride from their home. Communities want to see more investment in active and public transport networks and to ensure that these are safe and climate-conscious. Equity must be prioritised in all active and public transport initiatives to ensure we are meeting the needs of people with disabilities, people from remote areas, children, elderly residents, and others with specific needs or at risk of exclusion.

> Heavy vehicle fleet transition

There are specific challenges and opportunities for heavy vehicle fleet transition in regional Victoria due to distances travelled and the freight routes. When it comes to financial viability, electric trucks need to be equivalent to the cost of traditional trucks otherwise freight companies are unlikely to adopt them. There are lots of benefits to switching to electric trucks, especially for public health. When it comes to decarbonisation of road freight green hydrogen is also emerging as an option.

> Temporary infrastructure

Temporary' active transport infrastructure provides the opportunity to trial new initiatives for replication/scaling-up which can generate learnings for the region.

> Integrated transport planning

There is a lack of integrated or sustainable transport planning expertise within local governments in the region to identify and advocate for innovative local interventions that are proven to be successful at achieving a mode shift away from car use. This means that current road planning and projects are at risk of re-enforcing current car dependency. Regional Victoria's population to set to double over the next 20 years, with cities and towns within a two-hour radius of Melbourne (including Bendigo and many other towns in the Loddon Mallee region) experiencing the strongest growth. Local governments across the region have integrated and active transport plans but have not been able to secure funding for implementation or dedicated sustainable transport planners.

3. Shared service for regional transport planning

Rationale

Investing in a shared service of local sustainable transport planners could help to improve local and regional sustainable transport outcomes. By working together these planners could also help to identify regional priority zero emission transport initiatives and scale up effective local solutions.

Objectives

> Boost the capability and capacity of local governments in the region to undertake sustainable transport planning. Identify priority interventions across the region that will achieve a mode shift from car use to walking, cycling and public transport. Increase investment in active transport, public transport and electric vehicle planning and infrastructure. Seek policy settings and incentives that facilitate greater take up of electric vehicles, walking, cycling and public transport use.

Components

> Development of a shared service model for sustainable transport planners for the region.

> Delivery of a coordinated public education and engagement campaign for the region, promoting the benefits of active travel and breaking down barriers.

> Development of an Integrated Zero Emissions Transport Strategy and action plan for the region

> Develop a suite of advocacy statements for state and federal governments seeking investment in active and public transport infrastructure, including the establishment of an Active Transport Fund.

> Implementation of 'temporary' active transport infrastructure as proof-of-concept trials for replication/scaling-up, and share lessons across the region.

> Establishment of partnerships with universities to evaluate interventions

Potential project partners

> Local governments, Department of Transport and Planning, Universities, Department of Health and local Public Health Units

Next Steps

1. Work with potential partners on an agreed shared service model
2. Recruit 2-3 FTE Sustainable Transport Planners for the region
3. Discuss development of an Integrated Zero Emissions Transport Strategy and action plan for the region with the Department of Transport and Planning.
4. Work with local government and universities to identify opportunities for temporary infrastructure 'trials' across the region and to tap into small grant funds.

Approximate cost

3 FTE Sustainable Transport Planners for 3 years, $900,000)

4. Heavy Vehicle Fleet Transition Network

Rationale

The uptake of electric cars for passenger vehicles is increasing, yet significant financial and technical barriers exist for heavy vehicles and freight in the region. The technology for this sector is changing rapidly, yet for most companies and organisations with heavy vehicle fleets the costs are still prohibitive. Some businesses and organisations are choosing to pilot electric and hydrogen fuel cell heavy vehicles and are beginning to explore the infrastructure needs to support electrification. A critical step to helping to progress this aspect of the transport transition is building the region's knowledge and understanding of the technologies available, the predicted cost curves and the changes needed to business and operational models for different industries to cater for electric fleet.

Next steps

> Engage a consultant to undertake the analysis

Objectives

> Establishment of a network of fleet managers from government and industry across the region to share information, knowledge, and learnings.
> Identify industry support needs and advocacy priorities.
> Identify opportunities for joint procurement or trials.
> Work with transport planners and industry on circular economy solutions to reduce long-haul transport needs and increase short haul using lighter vehicles.

Components

> A series of webinars, forums or showcase events to bring potential partners and key stakeholders together.
> A network platform for ongoing engagement and information sharing.

Potential project partners

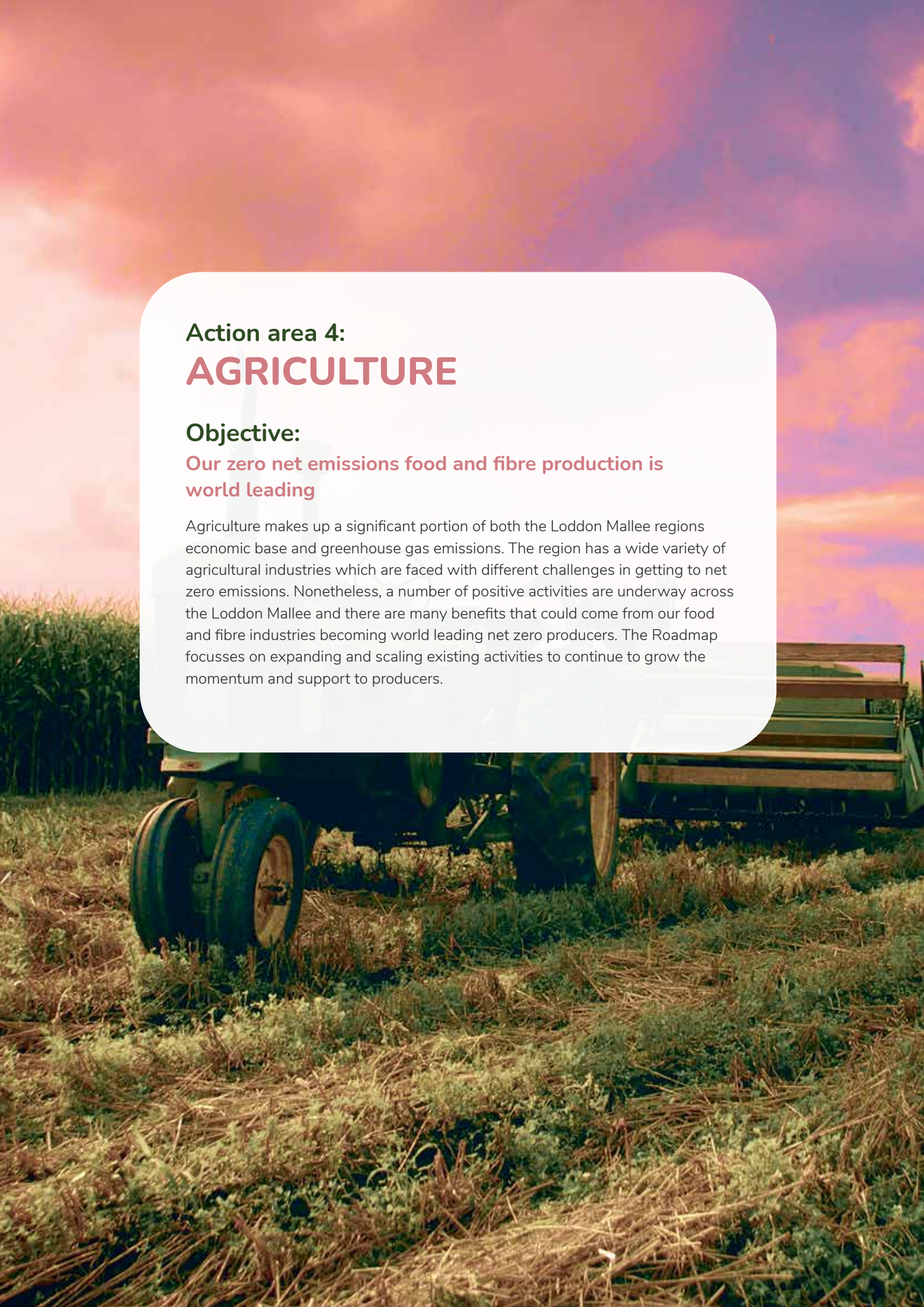
> Regional Development Associations
> Regional Development Victoria
> Department of Transport and Planning
> Victorian Hydrogen Hub / Mallee Hydrogen Cluster
> Industry fleet managers
> EV Council Australia
> Local government
> Be.Bendigo and other Chambers of Commerce
> AusIndustry
> Dja Dja Wurrung Group (specifically Djandak) and other interested Traditional Owner Corporations

Next Steps

> Facilitate a forum, series of webinars or showcase events to bring potential partners and key stakeholders together.
> Identify the most appropriate platform/s for ongoing engagement and information sharing.

Approximate cost

> 0.5FTE for 2 years for a network coordinator ($100,000)
> $50,000 to support network events, administration and knowledge sharing activities.



Action area 4:

AGRICULTURE

Objective:

Our zero net emissions food and fibre production is world leading

Agriculture makes up a significant portion of both the Loddon Mallee regions economic base and greenhouse gas emissions. The region has a wide variety of agricultural industries which are faced with different challenges in getting to net zero emissions. Nonetheless, a number of positive activities are underway across the Loddon Mallee and there are many benefits that could come from our food and fibre industries becoming world leading net zero producers. The Roadmap focusses on expanding and scaling existing activities to continue to grow the momentum and support to producers.

What is happening already

> Healthy Landscapes

The Healthy Landscapes: Practical Regenerative Agricultural Communities program seeks to build the capacity of livestock farmers to implement regenerative practices which enhance the environment and build resilience to the changing climate. The program is a collaboration between Macedon Ranges Shire Council, Hepburn Shire Council, the City of Greater Bendigo, NCCMA and Melbourne Water. From 2024/25 project partners hope to expand the program into Mount Alexander Shire as well.

> NCCMA Sustainable Agriculture Program

The North Central Catchment Management Authority undertakes a Sustainable Agriculture program which has a range of outreach support activities to help farmers and producers manage their land for environmental outcomes. This includes regenerative agriculture groups administered by NCCMA for Central Victoria, Kara Kara, Loddon Plains, Mt Alexander, Normanville and Raywood.

> Know your Number

Agriculture Victoria has a “Know your Number” program to help the sector understand its emissions profile and identify actions to become carbon neutral.

> Carbon Farming Outreach Program

The Australian Government has announced funding for the Carbon Farming Outreach Program which will seek to support farmers to reduce emissions and access the carbon market.

> Emission reduction targets

Increasing requirements from supply chains and consumers for carbon neutral food will drive a lot of investment in emissions reduction activities. In addition, a number of industry bodies have emission reduction commitments such as Meat and Livestock Australia which will flow through to their members.

> Greater Bendigo Rural Regeneration Grants

Small scale grant program for rural land owners for works that progress sustainable land management outcomes.

What we heard - opportunities and challenges

> Farmers are seeking individual advice for their circumstances from trusted sources – i.e. extension support.

> Practice change occurs when farmers are presented with proven solutions, they want or need to change and accessing the solution is achievable (it is available, local and affordable).

> Secure, long term funding is required to extend and expand existing successful programs.

> Reducing food waste is an important opportunity for reducing greenhouse gas emissions in the region.

5. Extending Farmer Support

Rationale

A number of programs across our region such as the Healthy Landscapes program and the North Central Catchment Management Authority's Sustainable Agriculture program demonstrates that the most effective way to achieve changes in how farmers manage their properties and businesses is to deliver a combination of workshops, short courses, discussion groups and individual on-farm advice.

Objectives

Establish a coordinated extension program that builds the capacity of farmers to reduce their emissions and enhance their resilience to the changing climate based on the model delivered successfully through the Healthy Landscapes program.

Components

> Network of extension officers delivering a coordinated, centrally designed program.
> Option to decentralise delivery through different local government authorities or centrally through the NCCMA and Mallee CMA or a new, independent organisation.

Potential project partners

> North Central Catchment Management Authority
> Mallee Catchment Management Authority
> Local governments

Next Steps

1. Confirm the preferred delivery model
2. Design the program and develop the business case

Approximate cost

> 2 FTE over 5 years
> $1 million

6. Farmer emission reduction grants

Rationale

Ensuring that advice is paired with small financial incentives can help to support farmers to follow through. A small financial incentive can help reduce the risk associated with doing something new or different on-farm.

Objectives

Support on farm changes that build resilience to the changing climate and reduce emissions through provision of a financial incentive that de-risks the change for farmers.

Components

> Small and medium sized grants for initiatives that support regenerative practices and emission reductions – e.g. purchase of moveable fencing and troughs, trial of feed additives, fencing of remnant vegetation and waterways, carbon accounting advice, energy efficiency upgrades, solar panels and electrification of plant and equipment.

> Project manager/s

Potential project partners

> Healthy Landscapes Program

> Regenerative Agriculture Groups

> Mallee and North Central Catchment Management Authority

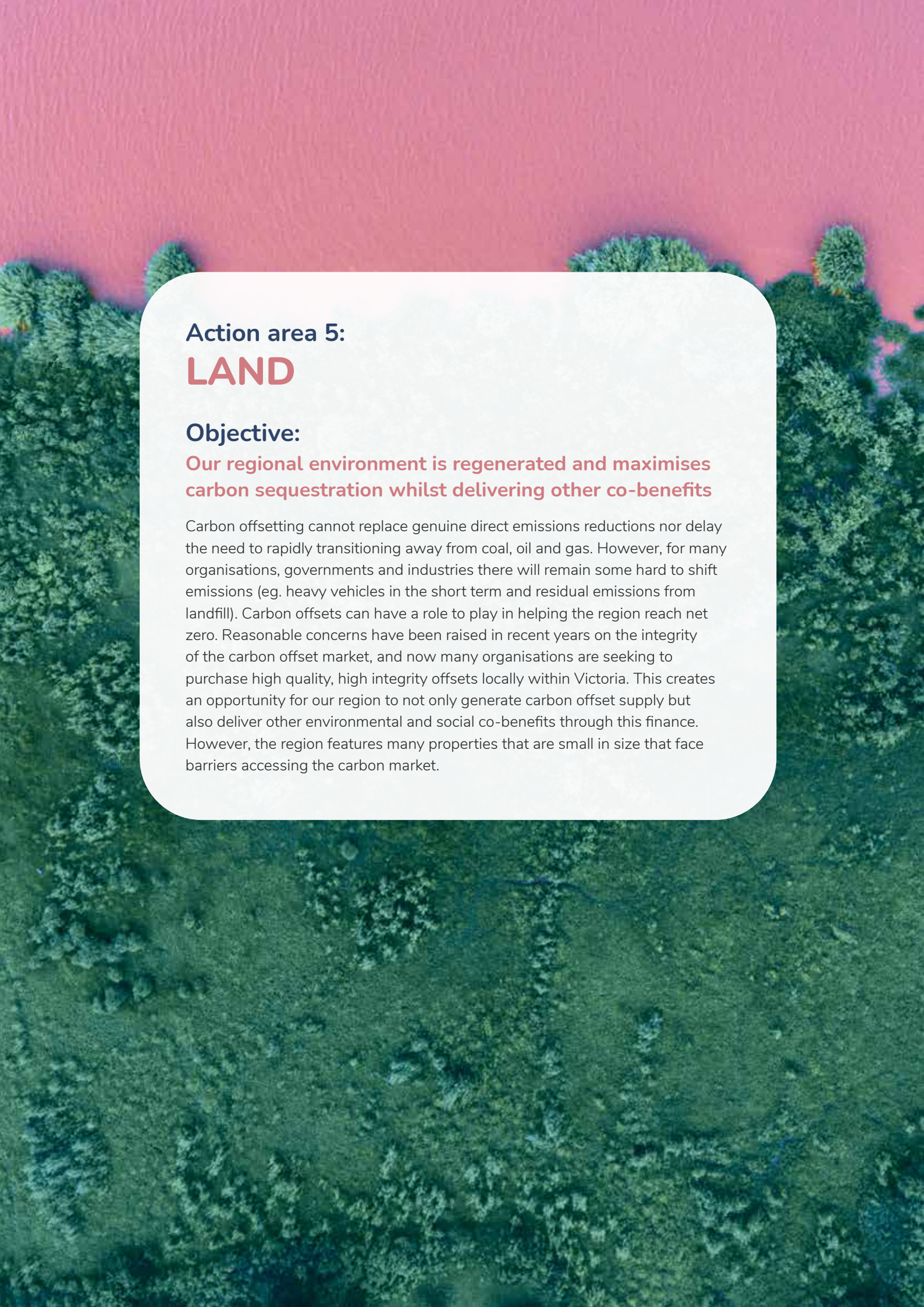
> FRRR

Next Steps

1. Develop a business case, including a governance framework
2. Develop grant guidelines

Approximate cost

$10M over 3 years



Action area 5:

LAND

Objective:

Our regional environment is regenerated and maximises carbon sequestration whilst delivering other co-benefits

Carbon offsetting cannot replace genuine direct emissions reductions nor delay the need to rapidly transitioning away from coal, oil and gas. However, for many organisations, governments and industries there will remain some hard to shift emissions (eg. heavy vehicles in the short term and residual emissions from landfill). Carbon offsets can have a role to play in helping the region reach net zero. Reasonable concerns have been raised in recent years on the integrity of the carbon offset market, and now many organisations are seeking to purchase high quality, high integrity offsets locally within Victoria. This creates an opportunity for our region to not only generate carbon offset supply but also deliver other environmental and social co-benefits through this finance. However, the region features many properties that are small in size that face barriers accessing the carbon market.

What is happening already

> Community Carbon Pilot

North Central Catchment Management Authority (NCCMA) has established the Community Carbon pilot with funding from and in partnership with the City of Greater Bendigo, Macedon Ranges Shire Council, Mount Alexander Shire Council, and Hepburn Shire Council. This project is currently pursuing local, self verification rather than seeking accreditation through the creation of Australian Carbon Credit Units or another third party scheme.

> Carbon Farming Outreach Program

The Australian Government has announced funding for the Carbon Farming Outreach Program which will seek to support farmers to reduce emissions and access the carbon market.

> The Victorian Carbon Farming Program (VCFP)

Provides an opportunity for private landholders to reduce emissions and build resilience to a changing climate through a range of carbon farming activities.

> First Nations leadership

Traditional Owners groups in the region are exploring opportunities to play a leading role establishing local offset projects, building on traditional practices to heal Country and create economic opportunities for community. ***Right Plant, Right Way*** – This First Nations led review of the revegetation industry in Victoria found that current land ownership and natural resource management practices create barriers to First Nations people from healing country. It also found that the native seed sector is under-resourced, highly dependent on volunteers and generally reliant on fragmented, wild native plant populations which are not likely to meet future seed supply needs. The review sets out 7 principles aimed at embedding First Nations goals within the revegetation sector.

Research

There are a number of active research projects in the region exploring soil health

What we heard – opportunities and challenges

> There is a need for trusted local offsets.

> Critical factors to the capacity for local offsets include mixed environmental plantings, geology and rainfall. Not all offset plantations yield equal results depending on their location. Aspirations for carbon offsetting programs, scenarios and models all vary from shire to shire.

> Good offsets come from local farmers, but farmers need to be motivated and supported to participate in carbon markets, and to consider their own needs and priorities, including 'insetting' emissions. The needs and priorities of farmers and landholders must be well understood.

> Private landholders struggle to engage with the carbon market due to its complexity.

> Private landholders often do not have the upfront capital to invest in revegetation, regardless of whether their expenses may be able to recouped through the carbon market.

> Extension services are needed

> Revegetation across the region is faced with the challenge of low seed stock, it is important to invest in seed now for our future needs

> The Traditional Owner Cultural Landscapes Strategy and Galk Galk Dhelkunya (Dja Dja Wurrung Clans Aboriginal Corporation's forest gardening strategy) both speak to First Nations aspirations to influence revegetation on private land, highlighting opportunities for knowledge sharing and collaboration.

Work completed to date

>Employment of a Project Coordinator

> Establishment of a governance structure with existing project partners

> Development of a delivery framework including legal agreements and self verification methodology (in progress)

7. Local Carbon Offsets

Rationale

> Many councils and businesses in the region have a goal to achieve zero net emissions by 2030. Many of these organisations are looking for local carbon offsetting opportunities.

> Investing in local, vegetation based carbon offsets retains investment in the region, ensures the carbon offsets have integrity and achieves local biodiversity outcomes.

Objectives

Continue to establish a trustworthy, revegetation based local carbon offset program that achieves biodiversity, economic and cultural co-benefits.

Components

> Project Coordinator (fixed term position currently funded)

> Delivery of locally indigenous revegetation on private land

> Development of a robust and trusted verification methodology

Potential project partners

> North Central Catchment Management Authority (lead)

> City of Greater Bendigo, Macedon Ranges Shire, Mount Alexander Shire and Hepburn Shire (current project partners)

>Traditional Owner Corporations

Next Steps

>Extend the Project Coordinator position

>Confirm the carbon offset needs and preferences of local businesses and organisations.

>Seek a peer review of the local verification methodology to ensure it is legitimate, robust and meets industry needs

Approximate cost

> $200,000 to continue the Project Coordinator position for another 2 years.

> $20,000 for market research into the carbon offset preferences and needs of local businesses and organisations.

> $50,000 for a peer review of the local verification methodology.

> $200,000 for bridging funding to enable more challenging sites with high biodiversity potential to participate (e.g. sites with challenging aspects or lower carbon potential)

8. Local seed for the future

Rationale

> Access to indigenous seed and indigenous plants is one of the likely barriers to revegetation projects in the region.

> There is a limited number of people and enterprises with the expertise and capacity to increase local seed collection and propagation rates.

> Ensuring the collection of seed is undertaken in appropriate ways is critical to protecting biodiversity and cultural values.

> Establishing native seed production areas may be required in the future to meet demand for native plants and to protect wild seed supplies.

> Financial support to establish native seed production areas, increase the scale of existing operations and / or to establish new enterprises and projects would help meet the increasing demand which will be stimulated further by local revegetation based carbon offset projects.

Objectives

To support the native seed and propagation industry to expand in a culturally and environmentally sensitive manner to meet future demand.

Components

> Medium to large grants for initiatives that increase native seed and plant supplies in the region – e.g. for training, establishment of native seed production areas, nursery infrastructure etc.

> Project manager.

Potential project partners

> Central Victoria Zero Emissions Taskforce (lead, if established)

> Traditional Owner groups

Next Steps

1. Develop a business case, including a governance framework
2. Develop grant guidelines

Approximate cost

$5 Million

Advocacy

Across all of the themes of this roadmap there are specific advocacy opportunities that will be important to pursue alongside flagship initiatives. These advocacy issues will change over time and ensuring that the region can align knowledge and understanding of advocacy issues will be critical.

CONCLUSION

This Roadmap has identified key priorities for regional capacity to help drive greenhouse gas emissions to zero as soon as possible. It recognises that getting to net zero will require collaboration and coordination between multiple scales, actors and sectors, and that no one big project will resolve the problem of climate change.

Flagship initiatives have been identified through regional engagement and aim to build capacity in areas that have been hard to solve, or areas where there is existing momentum to build upon.

The success of any regional strategy or Roadmap relies on ensuring there is adequate resourcing and good governance to help drive and facilitate initiatives over time. Action area 1 is focussed on ensuring that the roadmap is able to support ongoing climate action across the region.

Our region has a long history of strong and bold climate action and this roadmap builds on that good work. Individuals, communities and local councils have historically often been leading the way, testing and trialling innovative ideas to emissions reductions. Our region already has great regional networks and agencies that have been working to scale action over the past two decades. This Roadmap will help our State and Federal government understand what the priority issues and opportunities are that matter most to our region. It also helps to coordinate action across multiple levels.

The action areas, objectives, flagship initiatives and indicative costs are summarised in the following table:

Action area	Objective	Flagship Initiatives	Estimated cost
1. Leadership / collaboration	Our region leads the way in emissions reductions through enhanced collaboration and coordination and support for First Nations leadership and self-determination.	Regional facilitators	$600,000
		Loddon Mallee Climate Fund	$40,000
		Loddon Mallee Climate Taskforce Establishment	$40,000
		Local Climate Action Planning	$500-750K over 3 years
		Regional Zero Emissions Economic Opportunities Analysis	$50,000
2. Energy	Our region accelerates the energy transition and ensures that no one gets left behind	Home Energy and Resilience Service	$2M plus grants / rebates
		Business Emissions Reduction Service	$1M
3. Transport	Our region transitions to a zero net emissions transport system that everyone can access	Sustainable transport planning shared service	$900,000
		Heavy Vehicle Fleet Transition Network	$150,000
4. Agriculture	Our zero net emissions food and fibre production is world leading	Extending farmer support	$1M
		Farmer emission reduction grants	$10M over 3 years
5. Land	Our regional environment is regenerated and maximises carbon sequestration whilst delivering other co-benefits	Local carbon offsets	$470K
		Local seed for the future	$5M