

2nd March 2021

Via Email : enquiries@infrastructurevictoria.com.au

To whom it may concern,

**Victoria's Draft 30 year Infrastructure Strategy
Submission by the Goulburn Murray Climate Alliance**

Thank you for the opportunity to provide comment on this strategy

The Goulburn Murray Climate Alliance (GMCA) is a formal network of 13 regional and rural councils spread across northern and north eastern Victoria. The GMCA region covers all or part of three of the regions identified for analysis by Infrastructure Victoria; Loddon Campaspe, Goulburn and Ovens Murray. The GMCA membership also includes the two Catchment Management Authorities in the region and DELWP(Hume). Council members are the cities and shires of Campaspe, Moira, Shepparton, Strathbogie, Mitchell, Mansfield, Murrindindi, Benalla, Wangaratta, Alpine, Towong and Wodonga. Populations in these municipalities vary from 5000 to 63,000 and land area ranges from 433 to 6673 sq.km, with associated networks for provision of transport, water, sewerage and other services. The GMCA has existed since 2007, working with its members on climate change projects, advocacy and information sharing.

Overall Feedback and Recommendations

It is welcome that the draft 30 Year Infrastructure Strategy has considered climate change including recent details about changes in water availability and heat, and the impact on communities.

Climate change will impact on all the Objectives of the Strategy, not only Objective 9.

There are several key comments about the overall Strategy approach.

Timing and Urgency

The recommendations of the draft Strategy support the Victorian government's policy of net zero greenhouse gas emissions by 2050. The government has not adopted an interim 2030 target yet, but expert advice commissioned by the government stated a target of 67% below 2005 levels in 2030 is necessary 'to secure an even chance of limiting warming' to 1.5°C. (1)

This highlights the urgency of the task. The longevity of infrastructure means it has to contribute to the mitigation as well as adaptation in the built environment.

The impacts of inadequate infrastructure, especially outdated buildings with inadequate design for a heating climate, are being felt by residents and users now

Adaptive Planning

Uncertainty in the timing of change and transition to adapt to climate change means *ongoing* strategic planning is needed for Recommendation 10, to 2050, including climate information and the ongoing trajectory of climate change to adopt appropriate and effective action.

An adaptive approach is essential for water resources with a recent study in the Ovens Murray region showing available water is likely to have decreases in the order of 20% by 2030 and 30%

by 2050 (5). This is not reflected in the Ovens Murray Summary for the Strategy which notes an 11% decrease in average annual rainfall by the 2030s. The resulting runoff decrease is magnified by climate change. This would hold true for most regions. Water resource allocation needs to include realistic projections of reduced availability, and include environmental health in resource objectives.

Integrated Monitoring and Evaluation

A process and schedule to monitor and evaluate progress must be integrated into the actions of the Strategy. Evaluation should also check the effective progress to achieve the excellent objectives of the Strategy.

Submission and Recommendations

The Strategy recommendations range from immediate implementation to a timeframe of 2050. To contribute meaningfully to the zero emissions target by 2050, several recommendations need to be achieved by 2030 or 2040, rather than 2050. The timing of all actions should concentrate on accelerating opportunities for climate adaptation and greenhouse mitigation in the next decade. Examples are Recommendations 1 and 14.

The need for alternate water is included in Draft Recommendation 11. Detailed studies are essential before any action to move water between regions, as this could have very detrimental environmental impacts.

Given many recommendations are long term, regular and staged reviews should occur in the timeline of every action. Establish an approach to evaluate the overall effective progress of the Strategy to the stated Objectives

Transport Infrastructure

The region the GMCA works in is slightly larger than the Hume region. Road transport in the region contributes about 25-30% of overall community greenhouse emissions (2).

Public transport is a greenhouse effective mode, with multiple co-benefits to the community. Then GMCA supports draft recommendation 1 to transition buses to zero emission vehicles.

Current plans for 5 regular weekday rail services to Shepparton and Albury-Wodonga are welcome. Otherwise, connecting the region by public transport. depends on buses.

Connectivity in the Hume region with networked communities needs enhanced east west mobility, and this has been highlighted in regional planning (eg Hume Strategy for Sustainable Communities 2010). Some improvement in east west public transport services has occurred but integrated public transport planning appears patchy. An example is the Wodonga train station was moved 4 km from the CBD without connecting bus services. Draft Recommendation 85 to 'reform public transport to meet local needs' is essential but its timing and resourcing is inadequate for this urgent issue.

Private Electric Passenger Vehicle use will accelerate as electric vehicles approach commercial parity with combustion vehicles. This is expected before 2025. Previous work by Infrastructure Victoria, to explore scenarios for the transition to electric vehicles and automated vehicles, showed that the transition may concentrate development in the metro Melbourne and peri-

urban areas. The regions risk being left behind in this transition, impacting on personal travel and the tourism industry. Further work by the regional greenhouse alliance with 55 councils demonstrates the need, community benefit and viability of a regional charging network. (3)

In addition, as more and more heavy vehicles move towards electrification or hydrogen fuel cell technology there will be an increased demand for refuelling stations to ensure the regions are not disadvantaged. The Hume Renewable Energy Roadmap identified the Hume freeway corridor and the Shepparton region as candidates for hydrogen fuel centres, with a majority of regional truck movements and 25% of Victoria's truck registrations in the Shepparton area.

Road design and construction can also play its part in reduced greenhouse emissions. Climate change is already accelerating the degradation of roads through hotter drier conditions and more extreme weather events. Also, road construction is a significant contributor to national greenhouse gas emissions and there is an opportunity to shift to more low carbon road materials. This will require careful planning and trials of new road materials that are both low emissions and more resilient to the climate projections for the 3 regions. Regional councils find that they cannot access existing options for greener asphalt as manufacturing capability is concentrated in Melbourne. Regional Roads Victoria could play a role in trialling and adopting low carbon materials and improving regional capacity.

Submission and Recommendations

- **Include a timetable to transition to electric buses, and low emission rail options, linked to renewable energy. Remaining public transport emissions need to be offset, preferably by sequestration projects in the regions. The timetable goal should be all possible means in 5 years, and completion by 2040, rather than the 30 years listed in draft Recommendation 1.**
- **Provide financial and technical support to install electric vehicle fast charging infrastructure in every regional municipality to create a viable and attractive regional network, with an immediate timeframe. This will complete work commenced in the Central Victorian Greenhouse Alliance (Charging The Regions project by Victorian government with the CVGA). Investigate and establish key hydrogen refuelling in the Shepparton area and a hydrogen route on the Hume freeway.**
- **Ensure draft Recommendation 48 does not deter the progress to uptake electric vehicles by using a staged approach – remove up-front charges but delay and stage the introduction of road-use charges as electric vehicle uptake accelerates**
- **Ensure road and rail infrastructure is planning for climate change projections and roll out of lower emissions road bases.**
- **Use planned infrastructure upgrades and new construction to establish supply of low carbon materials in the regions.**
- **Draft Recommendation 77 is supported as the innovations in low carbon materials in road design and construction will not occur without funding certainty that allows for innovation. For this reason the criteria in 77 should include decreased emissions from road construction itself eg low carbon products.**
- **Strengthen Recommendation 85 with dedicated resources and a timing of Immediate. Draft Recommendation 33 is an essential starting point (immediately release Victoria's integrated transport plan)**

Navigate the Energy Transition

A significant industry across all the Loddon Mallee, Goulburn and Ovens Murray regions is the rapid growth of renewable energy. Energy is identified as an emerging industry in many municipalities. This is recognised by the current development of commercial solar farms in many municipalities. Transmission constraints are already degrading these development opportunities and upgrade is an urgent priority.

Communities, industry and businesses across Victoria invested considerable energy and thought in the development of Regional Renewable Energy Roadmaps. These strategies should be incorporated in the investigation of this component of the study.(6)

The Hume Region Renewable Energy Roadmap has identified renewable energy opportunity across the Goulburn and Ovens Murray regions with the following key infrastructure needs:

- Significant large scale solar energy generation to the grid can be realised with urgent implementation of the AEMO recommended upgrade of the South Morang-Dederang-NSW transmission line. (AEMO 2018 Integrated System Plan). Upgrade of the Western Victorian transmission network would also benefit Hume capacity.
- The Ovens Murray region has significant sites for pumped hydro energy storage (PHES). A detailed study by ANU shows high quality sites could store around 1260 GWh. Of these 570 GWh of PHES is in four areas co-located with the region's existing high voltage network.
- Many smaller communities in the Ovens Murray and Goulburn region suffer restricted network capacity which constrains solar rooftop and local solar development. These communities also suffer regular blackouts during storms and hot weather. The community energy group Totally Renewable Yackandandah has worked with Mondo Power to build and evaluate Distributed Renewable Energy (DER) based on community micro-grids. Mondo is now planning to evaluate opportunities at a regional scale to integrate small scale solar, micro-grids into the grid, using data and communications technology to realise peak pricing and demand management opportunities. DER also has islanding potential during emergencies.
- Biomass for energy is an untapped resource across the regions and likely to grow into a significant industry over the next 10 years.

The most critical infrastructure needs for the region in order to realise these benefits is the upgrade of the transmission infrastructure. This is important for DER and can provide independent energy capacity for communities exposed to power blackouts due to transmission capacity, heatwaves and other emergencies.

Submission and Recommendation

- **Include the findings and community aspirations of Victoria's Regional Renewable Energy roadmaps in this Strategy**
- **Include DER as a developed technology to assist communities restricted by centralised supply and grid restrictions**
- **Draft Recommendation 3 to augment electricity transmission should investigate the inclusion of DER and grid linked neighbourhood and regional batteries in a transition to a future grid**

- **Draft Recommendation 4 to increase energy ratings is essential within the timeframes set out. The implementation of Draft Recommendation 5 (home energy ratings) should be also be piloted in 2022 and standard practice by 2025.**
- **Prioritise existing critical assets for vulnerability assessments and required upgrades**
- **Expand Draft Recommendation 6 to other public assets, such as street lighting**
- **Draft Recommendation 7 (demand management) can be expanded to integrate with market developments for users to participate in the NEM in both supply and demand sides. Work by AEMC (4) is linked to a pilot in the Hume region by the ARENA funded pilot EDGE Energy Demand & Generation Exchange Renewable energy is an opportunity and infrastructure priority across the Loddon Mallee, Goulburn and Ovens Murray regions for solar development. The rate of development means Draft Recommendation 4 should place a priority for the progress of all renewable Energy Zones.**
- **Include investigation and development of the Ovens Murray region's significant pumped hydro storage opportunities to provide network stability to renewable energy development.**
- **Draft Recommendation 81 relating to power supply upgrades for agriculture and regional manufacturing also needs to include DER options to complement and improve these upgrades in the transition to a modern network. The goal should include *maintaining* productivity as well as growth objectives, as regional areas face many pressures that can limit business opportunity.**

Addressing Regional Disadvantage

- **Digital Inclusion**

The Strategy correctly identifies the digital disadvantage faced by many regional areas.

One enabling infrastructure type is digital inclusion. The 2018 Australian Digital Inclusion Index identified the north (Goulburn and Ovens Murray) and west regions having the lowest digital access in Victoria. This included lowest technological access scores indicating the need for infrastructure to overcome this disadvantage. Part of this is capability to engage with digital technology. The option to base digital hubs at libraries gives an opportunity to support and train residents, but library staff must be resourced for this role. This idea should be extended to other community hubs if a library is not available.

Resilient communications technology is essential to maintain digital information and communications during the increasing incidence and intensity of natural emergencies projected due to climate change. It is also essential for development of industry and business, using smart technology for communications as well monitoring and control.

- **Green Infrastructure and links to socio-economic disadvantage**

The inclusion of green infrastructure in the Strategy recognises its essential role in cooling urban areas in a heating climate. Greener urban landscapes offer many co-benefits for active healthy communities, increased economic activity and urban ecology.

In this region, projections from DELWP and the BOM are that days over 35 degrees will double, and the historic heat of 3 months of summer will extend over 4 months by 2030. The comfort

and liveability of urban areas depends on adapted development. Provisions to reduce urban heat using greening should apply to all development in the urban areas, including commercial and industrial, to reduce the heat island effect and the task of reducing it through green landscapes. It is particularly necessary given the climate projections for northern Victoria. Both Central Victorian Greenhouse Alliance and Goulburn Murray Climate Alliance are working with member councils in central Victoria and across northern Victoria to plan for strategic green infrastructure. The councils need resources to accelerate implementation.

- **Foster Regional Victorians Health Safety and Inclusion**

Regional and rural councils play an essential role to support their communities in climate adaptation. Councils are at the forefront of recovery from increasing natural emergencies while planning for facilities and developments that are adapted to the projected climate future. The difficulties councils in this region experience due to resource constraints were detailed to the Victorian Parliamentary Inquiry into tackling climate change in Victorian communities. That Inquiry by the Legislative Assembly Environment and Planning Committee (2020) has recommended that the Victorian government provide targeted support to resource constrained councils across regional Victoria. The Committee also recognised that Victorian Greenhouse and Climate Alliances can assist effective action through regional coordination. Draft Recommendations 90 and 91 is consistent with the Committee's findings.

- **Social Housing in the Regions**

The GMCA has a history of cooperation with Environment Victoria (One Million Homes) and the Australia wide Healthy Affordable Homes Alliance to advocate for sustainable affordable public housing. GMCA supports draft recommendations 94 and 95. Draft recommendation 57 should also include energy efficiency and affordability for residents.

Submission and Recommendations:

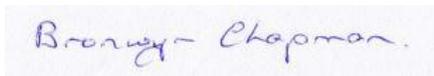
- **The digital divide in rural areas is so high that Draft Recommendation 80 should include parallel planning during the Digital Future Now initiative to ensure the next development stage is not delayed.**
- **In Draft Recommendation 86, prioritise investment in technology to improve digital inclusion for communities likely to suffer increased natural emergencies.**
- **Expand Draft Recommendation 87 (fund regional libraries to provide better internet access) in several ways**
 - **Introduce a criteria that communities over a certain population should have a digital hub, whether at a library or other community facility**
 - **Fund the role of libraries to skill residents in digital participation and encourage uptake of digital opportunities; effectiveness of expanding digital inclusion in rural areas depends on more than fast internet.**
- **Expand Draft Recommendation 37 to regional cities and townships to extend urban canopy**
- **Recommendation 71 is supported for all municipal areas as a mandated requirement during the planning process for new developments (target 30% tree canopy cover)**
- **Draft Recommendation 90 and 91 should commence with a thorough review of the costs involved and recommend an appropriate annual pool of funds over 5 years to ensure this**

essential work - to provide updated and new community climate adapted facilities in regional and rural municipalities - is realised. Priority should be given to resource constrained councils.

- **Add to Draft Recommendation 90 and 91 to establish a program to install renewable off grid generation and storage systems at emergency facilities to ensure continued operations during an emergency.**
- **Draft Recommendation 59 to Build back better after emergencies, to increase resilience to future climate conditions, is emphasised by all council members of the GMCA, as councils have long advocated for this outcome.**
- **GMCA supports draft recommendations 94 and 95. Draft recommendation 57 should also include energy efficiency and affordability for residents. Care should be taken in implementation of draft recommendation 94 that social needs in smaller communities be taken into account with support for social housing provision or unintended social detriment could occur as people leave their lifelong community to access better social housing in larger centres.**

Thank you for the opportunity to make a submission to Victoria's Draft 30 year Infrastructure Strategy. Please do not hesitate to contact me if you require further information or would like to discuss any of these issues. We look forward to your response.

Yours sincerely,



Bronwyn Chapman
Executive Officer
Goulburn Murray Climate Alliance
55 Welsford Street, (PO Box 1000), Shepparton Vic 3450
P: 0411 544858

(1) Independent Expert Panel Report for Victoria's Interim Emission Target 2019 -Panel report, Box ES2. Considering interim targets and trajectories for a 1.5C world, p 12

(2) BZE and Ironbark Sustainability, Snapshot Community Greenhouse Emissions Profiles, 2019
<https://snapshotclimate.com.au/explore/>

(3) Charging The Regions Local Government EV Charging Network Study 2020
http://www.cvga.org.au/uploads/9/8/3/8/9838558/81670_ctr_outcomes_va.3_public_1.pdf

(4) Integrating distributed energy resources for the grid of the future, published as part of the AEMC's 2019 Economic regulatory framework review.
<https://www.aemc.gov.au/sites/default/files/2019-09/Final%20report%20-%20ENERFR%202019%20-%20EPR0068.PDF>

(5) North East Catchment Management Authority 'Embedding-Climate-Adaptation-in-Agriculture' 2019
<https://www.necma.vic.gov.au/Solutions/Climate-Change/Embedding-Climate-Adaptation-in-Agriculture>

(6) Victoria's Regional Renewable Energy Roadmaps <https://www.energy.vic.gov.au/renewable-energy/victorias-renewable-energy-roadmap>

Note This submission by the GMCA reflects overall concerns and consultation with members but has not been directly endorsed by every member.