Response to Tackling Climate change

TO:
The Committee Manager
Legislative Assembly, Environment and Planning Committee
Parliament House, Spring Street
EAST MELBOURNE VIC 3002

SUBMITTED BY:
Bronwen Machin
Mayor, Mount Alexander Shire Council
50 Lyttleton St, Castlemaine, 3450

AND

Darren Fuzzard
CEO Mount Alexander Shire Council

This submission was endorsed by the Mount Alexander Shire Council at its meeting on 20 August 2019.

“Climate change is moving faster than we are – and its speed has provoked a sonic boom SOS across our world. If we do not change course by 2020, we risk missing the point where we can avoid runaway climate change, with disastrous consequences for people and all the natural systems that sustain us. That is why, today, I am appealing for leadership – from politicians, from business and scientists, and from the public everywhere. What we still lack – even after the Paris Agreement – is the leadership and the ambition to do what is needed.”

The Secretary General for the United Nations, António Guterres, 10 September 2018:\n
Introduction

Thank you for your invitation to submit to the Inquiry. Mount Alexander Shire Council is willing to present its views at a hearing.

Australia has always had an extremely variable climate, impacted as we are by the El Nino/Southern Oscillation, the Indian Ocean Dipole and the Southern Annular Mode. In the past our weather could be directly correlated with these large events.\(^2\) However, global warming is accentuating and even decoupling our weather from these vast systems. Our oceans are having their own heatwaves and the

---


\(^2\) Joelle Gergis, Sunburnt Country: The History and Future of Climate Change in Australia gives a detailed account of the past, current and predicted climate.
2018/19 summer was the hottest on record by a large margin (2.14°C above the 1961-1990 baseline) with more than 206 extreme weather records broken in spite of there being no El Nino event.  

The Victorian State Government in early 2017 passed the 2016 Climate Change Act with the worthy target of zero net emissions by 2050. This led to, or was based on, various strategies, including Victoria’s Climate Change Framework and the development of regional- based information on predicted climate change. Mount Alexander Shire took the Take2 Pledge and worked with its regional partners to produce the Regional Climate Adaptation Plan as well as its own Climate Change Action Plan.

However, there appears to be little community or sector engagement with the plans and in the meantime:

- The CO2 ppm level has now reached over 400 ppm and is anticipated to reach 408 to 410 this year, a level that has not been seen for at least 10 million years. In the past, it took thousands of years to reach that level rather than 150 years. The arctic fires that released record amounts of CO2E in July 2019 is an indication that our heating climate is causing events that will lead to more heating.
- Australia’s greenhouse gas emissions have increased for the past three years, reaching 556.4 MtCO2e in the year to December 2017. (Noting that Victoria’s greenhouse gas emissions have fallen in line with the State Government’s targets).

The implications of our increasing rate of greenhouse gas emissions are frightening, and include:

- A rapidly changing climate to one that is increasingly unstable and hostile. This is at odds with the descriptions used in State Government publications which often infer “gradual warming to a new climate.”
- If we don’t take immediate strong action, a likely 3.5 or more degrees warming before the end of the century, which is well within the lifetime of children born now. A 3.5 degree world means that much of the currently crowded part of the planet will not able to provide food or safe living. The current world governance does not give hope of a peaceful solution to the sharing of resources.

Mount Alexander Shire is the home of many climate change and environmental groups, as listed below. Given the rising knowledge and anxiety about a lack of action at the national and international levels it is no surprise that over a third of these groups have started up in the last three years and that at least three of the new groups have protest at the heart of their mission.

---

7 https://docs.wixstatic.com/ugd/148cb0_c65caa20ecb342568a99a6b179995027.pdf
8 Population just under 20,000 in the Southern Loddon Campaspe Region. The main town is Castlemaine.
Ways in which the government can best support communities in their efforts (ToR3)

This submission responds to the mitigation and adaptation terms of reference later. When it does, it identifies ways in which the State Government can assist. However, the State Government has a larger role than assisting local communities and relying on them to achieve our greenhouse gas emission reduction goals. The State Government has legislative, policy, resource and advocacy levers far greater than any small local government or community organisation.

As a start, the State Government could reinvigorate the leadership it showed with the 2016 Climate Change Act and supporting documents. This would mean:

- Reporting on achievements to community and council leadership as well as through media
- Providing the latest information on climate change impacts, including, in rural areas, the likely impact on farming capacity over the next 20 and 50 years. This means developing scenarios that describe how climate change will impact on the way we live. Just saying “more hotter days” does not give any indication of social and economic and life impacts.
- Providing resources to local governments and communities to implement their local and regional plans. Since the Federal government withdrew funding from the Cities for Climate Protection Program there has been no regular funding, stepped learning and strategic emission monitoring approach to emission reduction for councils and communities. State government
could reinstate and update this program using its own resources or co fund it with the Commonwealth.

Potential State Based Mitigation actions

Our electricity system and markets are not flexible, are not adapting or encouraging new innovative ways of producing or distributing renewable energy, are still primarily based on fossil fuels and will be challenged by increasing electrification of our transport and calls made upon it as the number of our heatwave days increases. The State Government has important roles to play in:

- Advocating and providing for energy markets and systems that support renewable energy production and distribution
- Maintaining its ban on fracking
- Supporting new models of energy management, such as it is doing with the Renewable Newstead solar project
- Develop a business model that ensures that electric powered or hydrogen powered cars are powered through renewable energy.
- Have a plan in place for the closing down of fossil fuel generators, including in those plans the support of locally impacted economies.

Waste is our council’s largest greenhouse gas emitter. Like many small rural councils we lack the resources and levers to identify and implement solutions. Through the Waste Groups we can get advice and do joint tendering but without a significant move at the national and state level to a circular economy we can’t reduce the problem. We have sought a container deposit scheme, so far without success. We look forward to the State’s Circular economy plan.

State wide planning of tips is important. Our tip is too small to do a waste to energy project and the best we can manage is flaring the methane. Our Waste Group doesn’t have the power or expertise to do the State wide and regional planning to ensure that the State’s waste is managed at the right scale to reduce greenhouse gas emissions to the minimum.

Carbon Drawdown from the air into vegetation and soil and it has the potential to be done easily, quickly and with many benefits, including a longer resistance to drought (thus both mitigation and adaptation). Rural Victoria has a great opportunity to play its part in reducing greenhouse gas emissions in a way that also brings it many benefits, as it already happening as the largest contributor to Victoria’s falling emissions have been in the Land Use, Land Use Change and Forestry sector. These gains are the tip of the iceberg. The Federal Government’s Future Drought Fund could be used to encourage regenerative farming. The State has a role in advocacy on the use of those funds, plus the resources to work with farmers and Carbon Soil organisations to promote regenerative agriculture. Mount Alexander could help promote this within our own local government area through our Land Rates which allows farmers who do environmental work to have a 20% reduction on their rates. In recognition of our efforts Mount Alexander Shire Council was given in August 2019 a Carbon Cocky Highly Commended award for the “Best Achievement by a Regional Council to Encourage Carbon Farming/Emissions Reduction or

---

9 https://events.ethicalcorp.com/reports/docs/239879/magazine-june-2019.pdf?utm_campaign=ETH%25252031MAY19-Database&utm_medium=email&utm_source=Eloqua&elqTrackId=7dfc80f0243451a827b9a8db4d6c&elq=c496a450d9a848c1bf990c20cb289c2b&elqaid=45190&elqat=1&
Related Low Emissions Industries”. Other councils could provide similar incentives. However, for all of this collaboration to work the State needs to play a leadership and facilitation role.

**State Infrastructure spend and urban planning** The State is building massive infrastructure and the extension of railway and other public transport as part of this infrastructure is welcomed. Nevertheless, Melbourne is surrounded by a crowded sea of energy hungry, single storied, dark roofed houses with few community facilities and little social housing. There are decades of well-known research that could have led to better outcomes and could still lead to better outcomes. Perhaps a way of improving decision making would be to have a regulatory impact (climate) review process for infrastructure projects above a certain spend and for subdivisions above a certain number of houses. The State could lead on this and work with councils to provide the expertise for them to have similar processes.

As part of future proofing rail and other facilities standards need to be changed. For example, the Bendigo trains slow down considerably on plus 35 degree days, days that will become more numerous. At the time that the train line was upgraded there were already plenty of plus 35 degree days and the anticipated impact of climate change was well known, yet the specifications apparently allowed for lines to buckle in heat. Flood standards may also need to be changed.

**Adaptation**

**Emergency Management** has significantly improved since the 2009 fires, along with the tightening of bush fire management zones in statutory planning. The State Government is to be congratulated for this. However, as annual temperatures rise, fire seasons get longer and droughts, floods and storms become frequently worse, Councils capacity and capability to provide prevention, response and recovery services to meet statutory requirements, obligations and community expectations become significantly reduced due to State imposed rate capping policy and lack of commitment provided by government to permanently allocate funding (MERP) dedicated to delivering the required emergency services.

**Statutory Planning:** Mount Alexander Shire is still growing and has in recent years added several major subdivisions to its urban boundaries. These subdivisions are not rich in ESD characteristics. CASBE, a coalition of a number of councils working under the auspices of the MAV, has undertaken significant research on what would improve the ESD of subdivisions. This work should be available to all councils and embedded in the State Planning and Policy Framework and the State Government has a lead role in making this happen.

**Building standards:** Those same houses on being built on our urban fringe are being built to a six star rating based on the National Housing Energy Rating Scheme (NAThers). Unfortunately, Mount Alexander’s NAThers mapping places us in the same region as Ballarat even though we are considerably hotter. The houses are being designed for winter conditions rather than for the increasing number of heatwave days. They are being designed for the current and past climate, not for the climate over the next 30 to 50 years when those houses should still be standing and being used. The State Government should be advocating for a review of the NAThers mapping and standards so that the star rating will enable houses built today to be energy efficient into the future.

The star rating system itself is well behind the best requirements. By 2020, all new housing in Germany must be climate neutral and in California, all new residential housing must be zero-net energy by 2020 and all commercial buildings must be zero net energy by 2030.
Research on the impacts of latest climate scenarios: Some councils are able to afford detailed climate projections with associated economic and social impacts. We cannot and nor should this be done at a council by council level. Such research should be lead and resourced by the State and Federal Governments.

Funding of climate impacted local infrastructure and services: Climate change is already costing councils and rural councils have few resources and great difficulty adding to the services they already provide. State Government, in the interests of equity, have a role in funding the impacts of climate change. Impacts include:

Strategic planning: Climate change means that land uses will change. The recently released IPCC climate change report calls for urgent overhaul of food production and land management. The Commonwealth Bank found grain-growing regions could see profitability declines as productivity falls by 50 per cent in some areas by 2060, compared with a 2018 baseline, with "changes in predicted rainfall" the driver. For the livestock sector, profitability could drop by 40 per cent over the same time period because of a decline in pasture quality and quality. So it is no surprise that some farmers are calling for a national strategy on climate change and agriculture.

Farm zone provisions may need to be changed, or allowed to be smaller than the traditional 40 hectares. Coastal and riverina councils may have different issues, however flooding is likely to be more frequent and planning schemes will need to change to manage the issue. Reviewing strategic plans and amending zones and overlays is a resource intensive and expensive process. Strategic planning work to inform potential planning scheme amendments comes with significant staff and cost requirements. Undertaking formal amendments is also resource intensive and costly. The State Government could assist by, for example, streamlining formal amendment processes, undertaking state level climate change focused amendments at the State Planning Policy level, providing ongoing strategic planning support for rural councils (such as the now ended Rural Council Planning Flying Squad) and defraying costs (e.g. waiving Planning Panel fees for formal amendments).

Heatwaves: Even without fires, heatwaves put pressure on council resources and business continuity. Staff work with elderly to ensure that they have plans in place to survive heatwaves without council staff in attendance. On Code Red Days most Council services cease. However, as the population ages, the existing arrangements for identifying vulnerable persons are not adequate. The current system does not, as far as we know, include NDIS clients and elderly community members who may be frail but not receiving support services. The impacts of extreme heat have been assessed as a significant risk facing the State of Victoria (DoJ 2014). In the last 200 years, extreme heat events have taken more lives than any other natural hazard in Australia (BoM 2015). In Victoria, the duration, frequency and intensity of heatwaves are expected to increase as a result of climate change. (Steffen et al 2014).

Management of extreme heat and heatwave straddles a number of Council’s areas of responsibility including emergency management, home care services, social wellbeing, infrastructure, economic development, sustainability and environment and town planning.

The Community Emergency Risk Assessment (CERA) process for the Northern Victorian IMEMPC has identified Extreme Temperature – Heatwave, as having a “high” residual risk rating. As a result of this rating, a Heatwave Plan was developed.

Additional impacts of extreme heat exist across the range of Local Government responsibilities and other systems affecting our communities:

- Personnel and staffing
  - Fire Danger days often occur at the same time as heat waves – leading to lower staff levels
  - Higher levels of stress
  - Poor rest and sleeping patterns
- Infrastructure
  - Buildings designed for lower heat stress levels
  - Bitumen and road-seals may lose integrity at high temperature
  - Higher levels of use of public places like pools and shopping centres
- Utilities
  - Planned power outages
  - Potential for disruption from other emergencies – e.g. fire
- Economic development
  - Less active consumption patterns in extreme heat
  - Less mobility in extreme heat
  - Less interest in destination visitation in high fire-danger periods

*Roads and bridges, parks, recreation reserves*: The changed conditions make it harder to maintain many of the community’s much needed facilities. Future proofing grants are appreciated (currently we are applying for a future proofing grant for our Botanic Garden) and should be extended. In addition, climate change is likely to impact anticipated useful life of council managed assets (roads, buildings, bridges, etc). The useful life of these key assets is likely to reduce and apart from having to maintain them more frequently, they are likely to need renewing more frequently. Public assets managed by local government in Victoria is valued at approximately $75 Billion and Councils may face significant financial challenges to meet community asset needs without State Government assistance, particularly in a rate capped environment.

*Actions being undertaken by community members and organisations to mitigate the severity of climate change, including actions to reduce greenhouse gas emissions (ToR 1)*

*Carbon Drawdown.*

Council is drafting its pathway to Zero Net Emissions by 2025 (as agreed in our [Climate Change Action Plan 2016 – 2020](#)) and even before our pathway is finalised it is clear that we will need to buy carbon
credits or develop our own carbon credits. Carbon draw down either by tree planting or regenerative agriculture that brings carbon back into the soil is one of the cheapest and multi-beneficial ways of reducing greenhouse gas emissions. We are in early discussions with a local carbon farmer and we have the pathways through our land management rate (a 20% rate reduction to farmers who undertake environmental improvements) to encourage drawdown actions. The Mount Alexander Sustainability Group is, through one of its carbon farming members, modelling the drawdown potential of regenerative agriculture to sequester carbon in MAS as part of its zero emissions by 2025 strategy. State government should increase its Department of Agriculture extension expertise in Regenerative Agriculture and model the carbon drawdown potential of farms through the North Central and other state Catchment Authorities. State incentives and MAS council rate relief could accelerate the uptake of this exciting method for regional farmers.

At the same time, climate change and an aging farming workforce is encouraging farmers to subdivide their land to below the minimum 40 hectare size expected in farm zones. Rather than just becoming rural living lifestyle blocks, many of these blocks could be brought back to some health by revegetation and small scale regenerative agriculture. They are also the only blocks cheap enough for aspiring farmers to buy.

What the State Government can do:

- Provide expertise and workshops on carbon soil draw down, regenerative agriculture, to farmers.
- Support Councils to protect farming where smaller lots are being sought by identifying or describing in the planning scheme acceptable uses that include carbon farming
- Provide for each rural LGA farming outlooks that take into account climate change, soil types and carbon drawdown opportunities to enable longer term planning and protection of farming areas that will still be producing produce in climate changed conditions.

Renewable Energy
Council has installed a significant number of solar panels (157kw) and has over the years made its buildings more efficient. In addition, Council has partnered with the State Government on other innovative schemes:

- Environmental Upgrade Finance (EUF) - An EUF is a financing agreement between a building owner, a bank and Council which was made possible by a change to the Local Government Act in 2015. A EUF funds works that improve the environmental efficiency of a commercial building. Once approved, a lender provides financing to a building owner. Council collects repayments through the rates system and returns the property charge to the lender.
- Solar Savers Scheme, working with the State Government to provide rebates to pensioners to install solar panels.
- Loddon Mallee Renewable Energy Roadmap – Council’s CEO is one of two local government representatives on the Renewable Energy Taskforce overseeing the development of this project.

Purchasing Renewable Energy At its July 2019 meeting Council agreed to work with thirty nine Councils across Victoria to participate in a market sounding exercise (tender) for a Local Government Power
Purchase Agreement that has the ability to provide emission-neutral energy at competitive prices for 100% of Council’s energy needs.

Council is also a member of the Cities Power Partnership which may offer other opportunities for us to increase our renewable energy.

Our community is also enthusiastic about renewable energy:

- **Bulk buy solar panels**, firstly through the Mount Alexander Sustainability group then through the More Australian Solar Homes (MASH) organisation (now a part of the Central Victorian greenhouse Alliance). Approximately 31% of our homes have solar panels.  
  13 Australian PV Institute - https://pv-map.apvi.org.au/historical#10/-37.0015/144.1750

- **Small scale PV park**: Renewable Newstead is, with the support of the State Government, planning a small scale PV park that will enable it to produce enough energy to cover its consumption. It is an innovative model involving commercial agreements with Powercor.

- **Waste to Energy**: The Mount Alexander Sustainability Group is working with Don KR to develop a waste to energy facility and is engaging with the State Government amongst other stakeholders to deliver this project.

Council has supported these groups through the provision of facilities, planning advice and advocacy.

**What the State Government can do:**

The current electricity system does not easily support increasing localised networks and larger scaled renewable energy networks.

- At the local level higher voltages are reducing the return on investment for many home owners with solar panels, or power authorities are refusing to allow the installation of further solar panels. The State Government has a role in working with experts to identify and pilot how local renewable networks can be made to work.

- At the larger scale, commercial renewable energy development is being restricted by inadequate transmission lines and governance. The State Government has an infrastructure and advocacy role.

**Energy efficiency**

In 2015 855 inefficient street lights had their inefficient lamps replaced with LED lights, under the Lighting the Region project. This was a project at least 15 years in the making, started by the Central Victorian Greenhouse Alliance and heavily resisted by Powercor for many years. It is another example of the privatised electricity system being allowed to get in the way of emissions reductions, and the State Government’s role in this is legislation and advocacy.

The second phase of this program is currently being developed by 18 local councils, focusing on major road lighting. The majority of these lights are cost-shared with VicRoads. Current negotiations suggest that Councils will need to pay the capital upgrade costs upfront, with VicRoads to provide reimbursement over a specified term. Our Council, like many others, do not have the capital for full
upfront payment. The **State Government** could play a role in supporting VicRoads to pay their share of costs upfront, increasing the viability of this project.

Street light design is moving on and solar street lights are now a possibility. If they are to become standardised in new developments standardised conditions need to be developed for them. This could be a role for the **State Government**.

Community organisations have encouraged householders and industry to become more efficient. Projects have included:

- **Castlemaine 500** (CVGA) 2006 – 2009, State Government funded
- **Comfy homes** (MASG) 2011. Funded via EPA fine of local business
- **Maine Power Project** 2009 (MASG) Funded by Regional Development Victoria Planning for Change, Sustainability Victoria Smart Energy Zones, Powercor, SP AusNet, MASG and financial contributions from the four industries and the Mount Alexander Shire Council.

**What State Government can do:** The community based projects were significantly supported by a State Government that was seeking change. SV had outreach officers and good contacts with the community. This investment in the community by the State Government has appeared to wane. State Government can again, through funds, support communities to live in more energy efficient ways.

**Divestment of funds from financial institutions that invest in fossil fuels**

Council has agreed that it will, where there is no financial dis-benefit and while maintaining an adequate risk profile, put its funds in financial institutions that do not invest in fossil fuels. About a third of our funds are so invested.

**Direct Climate Action**

Several of our climate groups are involved in non-violent direct actions, including the School Strike for Climate Action, Adani, bank divestment and Newcastle coal port protests. It is the democratic right of people to demonstrate peacefully, accepting that they may be charged with breaking some laws. The trend amongst Federal and State Governments is to use old laws in new ways and to create new laws to severely criminalise people who protest. **The State Government** should resist taking such a direction.

**Localisation**

Our community has in the past focused on local food production, through such projects as **Growing Abundance**. This community development project supported local businesses and also led to the establishment of some small businesses. Localisation, as begun by the Transition Movement, has the capacity to be both a mitigation and adaptation strategy. The State Government could through community discussions identify what would lead to more such projects.

**Actions by community members and organisations to adapt to the current and future impacts of climate change (ToR 2)**

Council has been active in adapting to climate change, including:
Adaptation to changing conditions
• We have received funding and are experimenting with improved ways of maintaining our gravel roads as our current process no longer work as well with long hot and dry summers and torrential downpours. Council manages 880km of gravel roads.
• We are taking climate change into account in selection and maintenance of trees
• We are reviewing how we will maintain our parks and recreation reserves
• We support and partner with land care groups
• We run, in association with our community groups, Sustainable Living Workshops
• We support our farmers to maintain the environmental sustainability of our farming land through a land management rate

Adapting to emergencies
• We work with emergency and health services to plan for emergencies, including bushfire, heatwaves, floods and pandemics. We act on these plans.
• The State Government, through the planning scheme, is requiring higher safety standards for houses and other buildings so that they can sustain life in bushfires. Our planners take this into account in the planning permit process
• Our community workers work with fragile residents to help them develop and implement their own emergency plans, including for heatwave conditions.

Building long term Resilience
Climate change will not be fixed and there is not one single solution for it. It will need generations of people working together to keep solving it. Thus our services that encourage our people to work together and just be together are important to long term resilience to climate change. Our services include:
• Community Grants
• Libraries
• Recreation services
• Home care
• Youth
• Arts
• Festival support
• Economic support services
• Health and Well Being
Maintaining these services will become increasingly difficult as councils are faced with rate capping and rising costs and rising expectations from the State Government as well as our communities on what should be delivered. The State Government should develop a regulatory impact statement of the proposed new Local Government Act to ensure that it is not placing more burden on councils that will threaten these services.

Our community is also active in this field, particularly the Mount Alexander Sustainability Group, the Landcare groups, U3A, and the Community/Neighbourhood houses. They give talks and run projects such as the Sustainable House Education Day (SHED). They demonstrate gardening techniques, such as at the Hub Foundation, and by working with our communities in many positive ways help build resilience.

Interstate and International best practice models that could be implemented in Victoria (ToR 4)

State Government should not be seeking Best Practice examples. Best practice is a response to well documented and known situations where answers are obvious. The Cynefin Model of decision making is one of the many decision making tools that encourage us to make decisions differently in different situations and levels of difficulties. Instead of Best Practice, the State Government should be look for emerging practice.

In his 10 September 2018 speech quoted at the beginning of this submission the Secretary General for the United Nations, António Guterres outlines what should be done, all of it possible with today’s knowledge and resources. Other resources include Drawdown, one of the most comprehensive plan ever developed to reverse global warming. And the best news is that most of the solutions are available right now with our existing technology. Beyond Zero Emissions, an Australian Group, has similar research based solutions.
All solutions have many benefits and all are cheaper for the community as a whole than doing nothing about climate change.

Mount Alexander Shire Council is willing to work with its community and with other levels of government to continue to act on climate change.