

Climate Change Issues Paper – City of Vincent Submission

The City of Vincent thanks the Department of Water and Environmental Regulation for the opportunity to provide input in response to the Climate Change in Western Australia Issues Paper (the Issues Paper) as part of the Government’s development of the State Climate Change Policy.

The City is committed to addressing climate change, recognising that urgent action is needed to reduce greenhouse gas (GHG) emissions and to prepare for unavoidable climate impacts. We have committed to achieving net zero GHG emissions from our operational energy use, vehicle fleet and the management of municipal waste by 2030. We are also committed to working with and supporting our community to take action.

We welcome the State Government’s target to reduce state-wide net emissions to zero by 2050 and ask that the State Climate Change Policy set out a clear path to achieve that target.

This submission aligns with and should be read in conjunction with the [Western Australian Local Government Association \(WALGA\) Climate Change Policy Statement](#) (2018), which calls for:

1. Accelerated action and fast tracked reform to remove regulatory barriers and facilitate the transition to a low carbon, energy efficient economy;
2. A State level emissions reduction target and/or renewable energy target;
3. Planning for climate proof communities (including funding for innovative climate change projects);
4. Comprehensive, effective adaptation planning; and
5. A stronger regulatory role for the EPA in assessing and recommending conditions to mitigate the GHG emissions associated with major projects.

Before addressing the questions raised in the Issues Paper, we would like to provide comment on some additional issues that are relevant and merit consideration, but which are not directly addressed in the Issues Paper:

Issue	Comment
The path to net zero emissions and the relative contribution by different sectors and industries	The State Government has committed to achieving net zero GHG emissions across all sectors of the WA economy by 2050. To reach this target, the State Climate Change Policy will need set out a path for each individual sector of the economy to achieve net zero emissions by that date. At the current time, there is no accurate measurement of the GHG contribution of each major sector, or its component industries. As an important first step, it is recommended that the State Government establish a measurement framework to determine these relative contributions. Further, to inform the rate at which each industry and sector should contribute to GHG reductions, it is recommended that the State Government evaluate the net benefits and harms from each industry and sector, including their overall environmental and health impacts. Industries found to cause net harm, should not be supported to reduce their emissions but instead be phased out. Resources should be directed to assist and incentivise businesses and individuals who are dependent on such industries to transition to more sustainable alternatives.
The role of LED street lighting in GHG reduction	Street lighting is a major energy use for Local Governments, accounting in our City’s case for one third of operational electricity use and 18% of GHG emissions. Yet the supply of electricity for street lighting is not contestable and the voluntary replacement of luminaires by Local Government with

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	<p>energy efficient alternatives is prohibitively expensive. It is recommended that the State Government consider:</p> <ul style="list-style-type: none"> • Co-funding bulk replacement of inefficient street lights with LED alternatives; and • Making electricity supply for street lighting contestable to facilitate the use of renewable energy for this major emission source.
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1. Transforming energy generation	
Questions raised in the Issues Paper	Comments
<p>What are the main challenges for decarbonising Western Australia's electricity supply while ensuring adequate generation capacity, security and reliability?</p>	<p>For Local Governments, the challenges to participating in the decarbonising of energy generation are predominantly regulatory in nature. Regulations form barriers to Local Government installing large scale renewable energy generation and to effectively using and sharing energy generated by such systems across Local Government facilities as well as with the community. There are also regulatory barriers to Local Government providing direct support to households and businesses for the installation of renewable energy systems and energy efficiency upgrades.</p>
<p>What are the most effective ways to overcome these challenges by 2030?</p>	<p>Actions that would assist State Government on its path to energy transformation include:</p> <ul style="list-style-type: none"> • Rethinking energy infrastructure to facilitate smart grids that incorporate distributed generation, storage and community-based virtual power plants; • Reform of the Western Australian electricity market to improve grid access for large scale renewable projects (including community driven projects); • Amendments to the Local Government Act (1995) to enable Local Governments to facilitate solar and battery installations within their communities; • Removal of regulatory barriers to energy sharing between sites and users; and • Making electricity supply for street lighting contestable to enable Local Governments to procure from electricity suppliers that meet their GHG emission objectives.
<p>Should the electricity sector make a pro-rata (or greater) contribution to Australia's national GHG emission targets?</p>	<p>Compared with other sectors where low and zero carbon options are still in development, GHG emission reductions are relatively easy to achieve in the electricity sector. For this reason (at least for the short term) the transition to zero carbon in the electricity sector should occur at a greater rate than its pro rata contribution to GHG reductions.</p>
<p>How fast do you think the transition of the electricity sector should occur?</p>	<p>The rate of transition necessary for the electricity sector will be determined in large part by the speed at which other sectors can be decarbonised. The State's Climate Change Policy on energy transformation must be consistent with the trajectory for achieving its stated target of net zero by 2050. In order to facilitate this, the Policy will need to consider the different sectors and the different industries within those sectors, measure their baselines and set appropriate targets for the GHG contribution of each.</p>

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2. Industry innovation	
Questions raised in the Issues Paper	Comments
What measures have been implemented by your business to lower energy use or emissions?	To lower energy use and GHG emissions, our City has implemented corporate energy efficiency and renewable energy strategies, along with programs and policies to encourage businesses and residents to reduce their carbon footprint.
Have you assessed the implications of the low-carbon transition for your business or sector? How are these risks disclosed to stakeholders?	The City has assessed the implications of a low-carbon transition and found them to be positive overall. Measures that reduce carbon emissions typically also reduce energy costs and have favourable financial outcomes when compared to maintaining the status quo. Risks are minimised by prioritising mature technologies with proven track records and the best return on investment.
What exemptions should apply to trade-exposed sectors in reducing our emissions?	An industry or sector should not be protected from shouldering its fair share of the emission reduction burden simply because it produces an export income. It is recommended that the contribution of sectors and industries toward the State's overall GHG reduction target should be based on their relative contribution of emissions as well as consideration of their net benefits and harms to the WA community and its environment.
How can the Government of Western Australia foster clean industries and technologies?	State Government can foster clean industries and technologies by removing regulatory hurdles that currently hinder renewable projects. Further it can provide support and incentives to low carbon and carbon positive industries such as 'green' tech (e.g. developing large scale renewable hydrogen to replace natural gas), carbon farming and innovative approaches to sustainable agriculture (an example of this being Sundrop Farms in South Australia, which sustainably grow large quantities of fresh food in a desert environment using 100% solar energy and net zero water).

3. Future mobility	
Questions raised in the Issues Paper	Comments
What are the barriers to purchasing a low-emissions vehicle for your household or business?	Lack of availability of suitable vehicles is a major impediment to the adoption of electric vehicles into our City's fleet. Light fleet options are now starting to increase, but trucks and utility vehicles are still a way off. Purchase price also continues to be a barrier.
What can be done to facilitate the uptake of electric and other low-emission vehicles in Western Australia?	Financial incentives (possibly through State Government fleet purchasing arrangements) could facilitate a significant increase in the number of electric vehicles in Local Government fleets. Such vehicles would feed into the second hand market, facilitating further exposure and access to these vehicles for the wider community. Direct incentives to the community could include discounted vehicle registration and licensing fees for electric vehicles. Mandating the provision of charging infrastructure in multi-unit and mixed use developments would also reduce barriers to the uptake of electric vehicles by occupants.
How can we further encourage use of public transport and active transport, such as walking and cycling?	Convenience and safety are key barriers to the adoption of public and active transport. Improving the efficiency and convenience of public transport, particularly through increased service frequency and improved connectivity will encourage more use. Continued improvement of cycling and walking infrastructure is also essential, particularly the prioritisation of pedestrian and rider safety (and

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	convenience) over efficient traffic flows. Providing well-connected, efficient, safe public and active transport infrastructure is density-dependent and very difficult to achieve in large sprawling cities. Suburban sprawl must therefore be addressed using the appropriate planning mechanisms.
How can we ensure that Western Australia isn't left behind in the transition to cleaner transportation?	<p>To avoid being left behind in the transition to cleaner transportation, the State Government should look to the examples of other jurisdictions that are successfully making the transition. Actions that the State Government may consider include:</p> <ul style="list-style-type: none"> • Prioritising low or zero emission vehicles when updating its fleet; • Moving toward 100% renewable power for the public transport network (including zero emission buses and green power for rail); • Developing policies that facilitate the adoption of electric vehicles by Local Government and the wider community (as described above); and • Facilitating the installation of a public electric vehicle charging network.

4. Regional prosperity	
Questions raised in the Issues Paper	Comments
How will climate change affect your regional community?	While the City of Vincent is not a regional Local Government, it is well understood that climate change disproportionately affects rural and regional communities. Increased climate volatility and more extreme weather events are already being experienced in regional WA. The associated impacts damage and destroy infrastructure, reduce the productivity of land and harm the health and wellbeing of communities.
What steps can we take to further enhance the resilience of our regions and our primary industries?	The State Government can take steps to support and foster industries that are less vulnerable to the impacts of climate change and at the same time reduce the carbon intensity of rural and regional industries. Examples include large scale renewable energy projects, mining and manufacturing to supply 'green technology' industries and innovative new approaches to localised, low-carbon food production systems (as mentioned above).
How can we support the agricultural sector to participate in the low-carbon transition?	<p><i>Addressing agricultural methane emissions</i></p> <p>Methane is a potent GHG and Australia is disproportionately represented in its emission. Agriculture is a major source of atmospheric methane and the production of meat and other animal products is the single largest agricultural source, estimated to account for between 14% and 87% of global warming. While this is a large range and the methodologies used for calculating such impacts are much disputed, even the most conservative estimates acknowledge that animal agriculture's global warming impact is equal to or greater than that of all forms of transportation (land, air and sea) combined. Moving away from animal production systems toward more plant-based alternatives is the fastest, most effective way to reduce agricultural GHG emissions. Because plant production systems require a fraction of the land and water used for animal agriculture, they have broader environmental benefits, addressing Issues 7 and 9 (water security and protecting biodiversity). The State</p>

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	<p>Government can provide support to animal-based industries to transition to plant-based production systems for dietary protein and other consumer products.</p> <p><i>Reducing 'food miles'</i></p> <p>Transportation of fresh food, particularly to remote rural and regional communities adds significantly to its carbon footprint. The greater the distance travelled and the more refrigeration required, the greater the impact. Western Australia does not produce sufficient fresh fruit and vegetables to meet the recommended daily intake of its population. Such items are commonly imported from interstate and overseas. The relative scarcity and high cost of fresh, healthy food in small towns and communities is well known. Supporting all communities (but in particular those in remote and regional areas) to become self-sufficient in fresh produce would not only reduce their GHG emissions, but also improve food affordability and health outcomes while contributing to local economies.</p>
<p>What opportunities do carbon offset markets present for Western Australian land managers, including Aboriginal groups?</p>	<p>Land clearing for large-scale agriculture is a significant source of carbon emissions because the removal of vegetation and disturbance of soil releases carbon dioxide. As the majority of land is cleared for grazing, the methane emitted by livestock further compounds this impact. Land clearing is also the major driver of biodiversity decline and disruption of the water cycle. The State Government has the opportunity to reverse these impacts by incentivising land managers to stop clearing land and revegetate degraded areas. Such rehabilitation projects would be eligible for carbon offset schemes and present a sustainable source of income for land managers including Aboriginal groups.</p>

5. Waste reduction	
Questions raised in the Issues Paper	Comments
<p>What areas can we target to further reduce GHG emissions from waste?</p>	<p>Significant progress is currently being made to reduce GHG emissions from waste in Western Australia. Local Governments are increasingly collecting and processing food and garden organics separately from other municipal waste, avoiding the most significant source of GHG from landfill. Business and government are also increasing the substitution of recycled products for raw materials, thereby reducing the carbon footprint of manufacturing and construction. The next step for the State Government is to address waste generation through appropriate regulation of products and their packaging, as well as through consumer education to help households minimise waste to the extent that this is within their control.</p>
<p>What can households, businesses and government do to reduce their waste and compost more?</p>	<p>Western Australia needs to move toward becoming a Circular Economy. This will require a major shift in focus, toward waste avoidance and alternative approaches to business and consumption. The State Government will need to take a lead in facilitating producers and consumers to adapt to this new paradigm. A combination of regulation, incentives and education will be required in addition to partnerships between governments, business and community.</p>

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6. Safe and healthy communities	
Questions raised in the Issues Paper	Comments
What are the main climate risks for your household or your community? What can be done to manage these risks?	Heatwaves, storm damage and declining ground water resources have been identified as the greatest climate-related risks for our Local Government area. These are expected to impact on health and wellbeing, the built environment and the quality of outdoor and recreational spaces used by our community. To manage these risks our City has put in place strategies to mitigate the urban heat island effect, requires new developments to be more resilient to climate impacts and carefully prioritises use of groundwater resources.
What are your biggest concerns about Western Australia's future climate?	The health impacts of future climate change are a concern for the whole state. Heatwaves, climate-related changes to the distribution of disease vectors and worsening air pollution threaten the physical health of all Western Australians. Droughts, storms, floods, bushfires and the spread of agricultural pests and diseases impact most heavily on rural communities but have economic and food security implications for all.
What could be done to ensure your community is better prepared for possible climate impacts?	As a Local Government our remit to prepare for climate impacts is limited. To achieve our objectives in this area, we need State Government to provide appropriate support in the form of: <ul style="list-style-type: none"> • Relevant policy changes (particularly in the areas of planning and emergency management); • A coordinated approach across government agencies; • Assistance to embed climate risk in governance and planning documents; • Guidance on the identification and treatment of hazards; and • Appropriate funding for the building of resilient infrastructure.

7. Water security	
Questions raised in the Issues Paper	Comments
What can we do to encourage Western Australians to use water more efficiently and adapt to a drying climate?	Water Corporation's community education campaigns, along with water saving programs for business and Local Government have been highly effective at reducing water use across these sectors. Further opportunities to reduce reliance on both groundwater and scheme supplies by Local Government include the use of harvested storm water and expanded use of treated wastewater for public open space irrigation. Implementation of such initiatives will require State Government support and coordination, possibly via a dedicated community water infrastructure fund.
Are there policies adopted in other jurisdictions we should consider for Western Australia?	Fit-for-purpose greywater reuse in Western Australia lags behind other jurisdictions and offers significant water saving opportunities. Retrofitting of greywater systems in existing buildings is often not possible, but the State Government could consider introducing planning requirements for the inclusion of greywater infrastructure in new developments, supported by relaxation of current regulatory barriers where appropriate. Community education around the use of greywater and

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	targeted incentives may also be considered, along with increased water performance standards for new development.
What are the best management options to deal with the water security implications of climate change for our agricultural sector?	Agricultural production systems vary in their water intensity as well as in the net benefits and harms they produce for human and environmental health. As for GHG emissions, it is recommended that the State Government consider measuring and evaluating the relative water demand and impacts of different agricultural industries, then using this to inform its approach to water management. Options may include assisting certain farming enterprises to transition to less water intensive crops or production systems and supporting others to develop and implement innovative water reuse and recycling processes.

8. Liveable towns and cities	
Questions raised in the Issues Paper	Comments
What are the key barriers to improved energy efficiency for our built environment?	Split incentives are a major barrier to improved energy efficiency, particularly in higher density developments where the developer is typically not the building occupant, who bears the operating cost of inefficient design. Energy efficiency hinges on climate-effective orientation, building material choice, placement of windows, shading and insulation. All of this is difficult and costly to retrofit post-construction.
What information or tools do you require to improve energy efficiency in your household or workplace?	Mandatory energy (and water) efficiency reporting at the point of sale and lease would promote a shift toward more efficient design, especially if supported by consumer education.
What energy efficiency standards or disclosure measures do you support for our homes and offices and the appliances we use in them?	Other States in Australia require mandatory inspections prior to the issuing of Occupancy Permits to confirm that buildings have achieved the energy efficiency requirements set out by regulation. This is not the case in Western Australia. An important first step toward improving energy performance would be to rectify this situation. Beyond this, State Planning Policies should be aligned with climate change mitigation and adaptation priorities including best practice in energy efficiency and measures to reduce the urban heat island effect. Disclosure statements designed to inform consumers about the energy efficiency of buildings and appliances should be as simple to understand as possible, consistent across different measurement areas (e.g. same number of possible “stars” for energy and water performance), and benchmarked against a net zero standard (e.g. net zero water use and GHG emissions).
How do you think climate change will affect the liveability of your neighbourhood or region?	Climate change is already affecting the liveability of our Local Government area. We are seeing this in the form of increased duration and severity of heat events and associated air quality issues. These impact directly on human health, diminish the enjoyment of outdoor activities and make it harder to maintain healthy green spaces for our community.
How can we improve the retention of vegetation, particularly tree canopy, in our cities and suburbs?	Local Governments face significant barriers in their efforts to protect and maintain urban vegetation and tree canopy, particularly on private land where most losses occur. To overcome these barriers, changes to State Planning Policies are required, including:

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	<ul style="list-style-type: none"> • SPP 7 (Design of the Built Environment), and the complimentary policies that make up Design WA, to include effective requirements for the retention of mature trees and incorporation of trees across all forms of development, especially in medium density housing where the greatest canopy loss is seen; • The development of Model Scheme Provisions for tree retention and planting (an example to consider is the City of Fremantle’s Scheme Amendment No. 63); and • The continued collection and provision of Urban Monitor tree canopy data at regular intervals to enable Local Government to track and measure changes in urban vegetation. <p>Significant tree loss also occurs outside of the planning and development process. Much of this is in preparation for subdivision, but a large number of significant canopy trees are removed due to perceived risk to property. Changes to State planning legislation and policy that protect trees against removal and their owners against related liability would be beneficial. Such changes may include increased powers for Local Government to require planning approval prior to the removal of trees (that meet certain criteria) and no-fault insurance for property owners whose trees cause damage or injury to third parties.</p>
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9. Resilient infrastructure and business	
Questions raised in the Issues Paper	Comments
What are the key climate risks for the primary industry or resources sectors?	While this question is targeted at primary industries and resources sectors, for Local Governments the key climate risks relate to the cost of replacing and upgrading infrastructure damaged by weather events and natural disasters and the potential liability associated with the approval of development in climate risk areas.
Do you currently assess the impact of physical climate risks on your business, assets or infrastructure?	Our City has previously undertaken an organisation-wide climate risk assessment, but the routine consideration of climate risk is yet to be embedded in our systems and processes.
Is there information which would assist you to do this better?	Guidance from the State Government in the form of a consistent framework for the assessment of climate-related risk would be beneficial. Funding for mitigation actions to address identified risks would also assist.
What are the best ways to enhance the resilience of public and private infrastructure?	The best way to enhance the resilience of public and private infrastructure is to build and upgrade with future climate impacts in mind. Consistent, overarching statutory guidance would play a significant role in facilitating this outcome.

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10. Protecting biodiversity	
Questions raised in the Issues Paper	Comments
Can existing land use and biodiversity management practices be modified to reduce vulnerability and improve resilience?	Beside climate change, the main pressures facing our environment are land use change, habitat fragmentation, degradation and invasive species. The common factor to most of these is land clearing, which in addition to harming biodiversity, also causes the loss of carbon from vegetation and soil, further contributing to climate change. Existing land use and biodiversity management practices can be modified to reduce vulnerability and improve resilience, but this will require making some difficult choices. In the first instance, focus must be on phasing out the practice of land clearing and actively revegetating degraded land. Urban densification will be needed to counteract sprawl, as will a move toward more sustainable forms of agriculture that maximise food production while minimising the land area required.
Are there opportunities for new collaborations with landholders or communities to address climate risks and improve biodiversity outcomes?	There are numerous opportunities for new collaborations with landholders and communities to address climate risks and improve biodiversity outcomes. These include supporting landholder to phase out land clearing, adopt more sustainable agricultural practices, develop innovative solutions for efficient and sustainable food production, transition to alternative industries where appropriate (e.g. tourism) and strategically revegetate land.

11. Strengthening adaptive capacity	
Questions raised in the Issues Paper	Comments
Are there gaps in the availability of adaptation knowledge, climate information or skills for your community, organisation or sector? How can these be addressed?	There are many gaps in the availability of adaptation knowledge, climate information and related skills in the Local Government sector. Many Local Governments recognise this as a significant risk. In particular, uncertainty about the legal liability of Local Government in relation to climate change is a key barrier to effective climate adaptation. It is recommended that State Government clarify the legal liability of Local Governments with respect to climate change adaptation and provide guidance and support to manage that liability.
What are the main barriers to the adoption of effective climate change adaptation?	In addition to the uncertainty around legal liability discussed above, funding for adaptation measures is also a key barrier. The cost of identifying, planning for and implementing such measures is currently absorbed by Local Governments. In the face of tight budgets and competing priorities costly adaptation actions may be deferred.