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COOLmob Submission: NT Government Climate Change Discussion Paper 2018

COOLmob began in 2002 as part of the national Cool Communities project, which was a partnership between community groups, environmental organisations and the Australian Government. COOLmob is the sustainable living initiative of the Environment Centre NT (ECNT) with a mission **"to help and inspire our community to live sustainably and reduce their greenhouse gas emissions."** COOLmob's role is to engage and keep the community interested in positive action. This in the past has been achieved by developing behaviour change strategies, conducting home energy audits, partnering with governments, industry bodies, community groups, businesses, schools and experts to advocate for the removal of sustainable living barriers in the Top End and provide accurate information to the community.

COOLmob has previously been funded by Territory and Federal government as well as Power and Water and the NT EPA. Committed ongoing funding is required for COOLmob to continue its role in the community. Through the Federally funded $2.4 million Smart Cooling in the Tropics Project, COOLmob were able collect valuable data and cement their role as a trusted community organisation providing free audits and retrofits to increase energy efficiency for low income earners. COOLmob has become a well-known advocate in areas such as solar, tropical design, energy pricing, metering and billing and has been successful in the local media.

COOLmob welcomes this opportunity to contribute to the development of the NT Government Climate Change Strategy. The development of a wide-reaching strategy that is strong and serious about reducing the NT's greenhouse gas emission production, mitigating the climate change effects which are already being experienced in the Territory and preparing the people, economy and the environment for the future is desperately needed and well overdue.

The NT is one of the few First World economies in the tropical band. Forty percent (University, 2017) of the world's population lives within these latitudes, many in low socioeconomic circumstances, but with developing economies, and a rising middle class, they are set to consume more energy. This will be compounded by climate change (King & Harrington, 2018). In the Top End we have an opportunity to apply our skills and capacity to research renewables in tropical conditions, energy efficiency, behaviour change and climate change adaptation. There is also a similar opportunity in Alice Springs and the southern NT.

If unconventional gas (fracking) goes ahead to the extent proposed, the Northern Territory will have the highest per capita carbon footprint in the world (The Australia Institute , 2018), contributing to the Territory's susceptibility to increased temperatures and extreme weather.

Reducing consumption across all sectors is an essential, but often underrepresented factor in the Climate Change arena. Much emphasis is put on renewable energy, which we endorse, but reducing personal and commercial consumption through behaviour change and education is effective, and more importantly immediate. Below are recommendations that are essential for the NT to effectively meet the 2015 Paris Agreement goal of limiting global warming to less than 2˚C. These recommendations have been sorted into mitigation, adaptation and opportunities and detail the ways COOLmob can contribute to their successful development and delivery.

Mitigation:

Education

It is vital that Territorians understand the risks associated with climate change. COOLmob has the potential to educate the community around their energy use and carbon footprint impacts on the environment and living costs. An educated and aware community will increase the capacity of Territorians to take actions that will decrease their carbon footprint. Currently as part of the Energy Efficiency Education Project, COOLmob provides a year 5 and 6 curriculum-based unit on energy efficiency to a wide range of schools. This could be expanded on a long-term basis and to a wider range of schools and students. This is a key opportunity to influence young minds and is a proven mechanism to impacting behaviour in the family home. In the current 2018/19 Project, COOLmob is running the program in a total of 12 schools across greater Darwin and Alice Springs, and there is the interest from additional schools if funding were allocated. COOLmob could also develop and deliver a Top End specific climate change / sustainable living curriculum unit to schools. Finally, COOLmob would also be in a position to deliver public education more broadly including public lectures, host informative talks and idea sharing events, business engagement, behaviour change and capacity building workshops as well as a robust social media and website campaign.

Home Audits and Behaviour Change program

COOLmob home energy audits and direct education programs can help Territorians to save both time and carbon emissions by directly educating home occupants about reducing their energy consumption. Currently COOLmob is only mandated to service low income households. However, as published in the Smart Cooling in the Tropics report, a previous COOLmob project working with low income households, low income people are already quite good at saving electricity as they are frugal with all their resources (Steinborner, et al., 2016). To realise significant gains in reduced CO2 via reduction in energy consumption, the mandate must shift to higher consumption households. This could be done via a subsidised system, where users pay for part of the service. Ongoing core funding is required to realise these relatively easy gains.

Adaption

Climate justice for low income earners

- COOLmob can assist in ensuring the Government is achieving climate change justice for all sectors of the community, including preparing those most vulnerable to climate change impacts like low income households who are often renters or living in Territory housing. Valuable data collected through COOLmob auditing projects demonstrates that low income earners generally behave in a way that consumes less energy than non-low income earners as they are more sensitive to the cost of power. These Projects' found that it is the type of unsuitably designed housing that low income earners tend to live in which prevents them from lowering their power bills as they are essentially forced to use mechanical cooling to maintain a comfortable temperature.

  Some of the relevant recommendations from the COOLmob Smart Cooling in the Tropics Project (Steinborner, et al., 2016) to increase climate change resilience for low income earners include:
  - Retrofit programs for low income earners for heatwave resilience - such as a shade rebate to ensure health impacts are mitigated.
  - Refugee energy consumption study would be beneficial as the Smart Cooling in the Tropics Project and current project are showing a decent proportion of participants are refugees, and peer to peer learning is high in these communities – train the trainer model could be cost effective and beneficial. These communities also have language barriers and low energy literacy – being able to access trusted information in their language is difficult.
  - NT Housing improvement program could use findings from Smart Cooling in the Tropics Project to upgrade existing stock for energy and comfort gains. A collaboration with NT Housing's maintenance program could be innovative as it could look at an 'at cost scale' – the Smart Cooling in the Tropics Project found that fixing security screens and ceiling fans was very cost and comfort efficient.

- COOLmob could assist with pathway development, program development and consultation to ensure the NT Government includes low income households in the clean energy transition through providing robust and wide-reaching rebate schemes to enable solar PV installation and energy efficiency appliance upgrades. The NT Government could draw on current Victoria and New South Wales Government schemes for development.

Commercial auditing and business/ industry engagement

- Through a commercial energy auditing program, COOLmob can assist large and small businesses in the NT including schools, hospitals, NT Government buildings, commercial buildings and retail stores with understanding their current energy consumption and provide detailed strategies to move to more efficient operations. This will increase efficiency, decrease running costs, decrease GHG emissions and increase community awareness and education. This is directly aligned with the "Conduct energy efficiency audits of existing Government dwelling designs to assist with transitioning all government buildings to energy efficient lighting and support sound decisions on upgrading, demolishing or disposal" opportunity identified in the Climate Discussion Paper.

- COOLmob could partner with the Government and Local Councils to develop a business engagement strategy that educates and incentivises businesses to incorporate emission reduction pathways into their corporate strategies. Local Councils and Territory Governments could fund rebates or no interest loans to create further opportunity. Similar programs have proven very successful in Australia such as the Sustainable Melbourne Fund.

Build Environment / Infrastructure

- COOLmob could create a partnership with Local Councils focusing on the emissions generated from multi-unit dwellings (MUDs), and through providing rebates and or grants, such a program could encourage MUDs to take action such as installing solar, or retrofitting, to reduce their greenhouse gas emissions.

- COOLmob could assist the NT Government in developing a tropical climate specific energy efficiency rating tool for commercial and domestic buildings that aimed at mandating net zero carbon designs by a particular date, i.e. 2030. Through the introduction of tropical climate specific building and planning regulation changes that support development in an environment where sea levels and temperatures are increasing, Territorians will have access to cheaper power bills, increased home energy efficiency, and will be able to decrease their greenhouse gas emissions.

- COOLmob could assist the NT Government in creating a mandatory scorecard for all properties, including rented properties. This scorecard could be similar to that which is being created in Victoria, which requires landlords to ensure properties meet appropriate standards to increase energy efficiency and reduce climate pollution.

- COOLmob advocates, in line with Australian Sustainable Built Environment Council ((ASBEC), 2018) for better building codes and policy on housing stock for both residential, commercial and government facilities and housing. We would recommend improved shading and insulation standards, promotion of options for passive cooling where possible (temporally and spatially) and the incorporation of outdoor recreation spaces into building codes and policies.

Opportunities:

- COOLmob have a unique position within the community and are proficient in the following skills, all of which are a vital component to successfully delivering a Climate Change Strategy:
    - Education – schools
    - Education – public
    - Education - Household/individuals
    - Audits – Domestic
    - Audits – Commercial
    - Data collection and Analysis
    - Policy advice and Advocacy

With increased funding, COOLmob would be able to build its capacity in all the areas outlined above as well as expanding their reach. An example of this could include extending domestic audits beyond low income households to high energy using households. Further exciting opportunities COOLmob can see include working with Government using existing data and knowledge to improve on housing stock and regulations, energy policy and behaviour change projects.

Furthermore, with funding and support COOLmob has identified ways below which demonstrate how we could support identified opportunities in the Discussion Paper;

- "Establish new businesses in clean energy technology and related areas (e.g. renewable energy storage)" as we have always advocated for renewable technologies
- "Employ innovative energy saving practices to increase productivity and reduce costs". This is our core business, and we have expertise, data, statistics and proven experience to deliver this successfully.
- "Building design guidelines for Government buildings could incorporate specific environmental efficiency strategies to mitigate higher average temperatures". COOLmob would be able to audit Government Housing, and work alongside industry experts to develop tropical climate specific principles to ensure buildings were increasing in energy efficiency and able to withstand rising temperatures in an efficient manner.
- "Enhance the passive cooling capabilities of the housing stock and installing insulation will help to mitigate higher demand for electricity". COOLmob argues that for this to be achieved there needs to be a new, climate specific building code and regulations introduced to ensure new buildings and alterations to existing houses are required or at very least strongly encouraged to incorporate passive design principles. COOLmob could work alongside the Government to introduce a program that addressed poor passive cooling principles in existing housing stock.
- "Develop an Electric Vehicle Implementation Plan and assess demand for provision of electric vehicle charging in new Northern Territory Government infrastructure". COOLmob would support, investigate distributed car battery storage, hydrogen vehicles (from EL report)
- "Install smart meters to assist residential and the commercial sectors to reduce energy consumption". Smart Grids are an essential step in hardware for both mitigation and adaption.
- "Conduct energy efficiency audits of existing Government dwelling designs to assist with transitioning all government buildings to energy efficient lighting and support sound decisions on upgrading, demolishing or disposal". As mentioned above, COOLmob could provide advice generally, conduct commercial audits, and assist with the policy development around this project. This could then be used as a case study to encourage the private sector to increase energy efficiency.
- COOLmob could support development of an NT Centre of Climate Change to test innovative applied research and technology as we are well positioned to be an intermediary between experts, governments, local councils and business
- COOLmob can support development of educational programs in schools, training programs in businesses and general awareness raising programs to increase awareness about the environment and what everyone can do to contribute as we are already doing this.

References

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