



Climate Action Moreland welcomes this opportunity to provide a submission to the inquiry into The Social and Economic Impact of Rural Wind Farms. We believe wind energy has an important role to play in helping Australia to transition to a carbon neutral economy, and that wind farms can provide considerable social and economic benefits to the communities that host them.

## **Climate Action Moreland**

Climate Action Moreland is a grass-roots climate action group based in the local government area of Moreland, in the North of Melbourne. Moreland includes the suburbs of Brunswick, Coburg, Fawkner, Glenroy, Gowanbrae, Hadfield, Oak Park and Pascoe Vale and is one of the most ethnically and linguistically diverse LGAs in Australia. Climate Action Moreland is one of a network of over 300 local climate action groups throughout Australia.

Our group was first established in 2008 by local residents concerned about the lack of action, particularly from government, on tackling climate change. We are independent of government, business and political parties. From a volunteer base of around fifty people we conduct workshops, forums and information sessions on the impacts of climate change, we campaign for a transition to renewable energy from coal fired power, and we communicate with our regular readership of around 400 local residents on climate related issues. More information about our group is available on our website at [climateactionmoreland.org](http://climateactionmoreland.org).

## **The importance of wind energy in a carbon constrained economy**

The role of carbon dioxide and other greenhouse gas emissions in global climate change is now well understood. To prevent catastrophic shifts in the earth's climate systems, we need an urgent, worldwide effort to move first to zero net emissions of these gasses, and then to start drawing them down, until atmospheric concentrations return to safe levels at less than 300ppm CO<sub>2</sub>-e. This effort must necessarily include a shift to renewable sources of energy for electricity production, particularly wind and solar energy.

A recent report by Beyond Zero Emissions and The University of Melbourne, entitled 'Zero Carbon Australia Stationary Energy Plan', demonstrates that Australia's electricity can be generated exclusively from renewable energy sources in ten years. It outlines a fully costed plan to achieve this outcome using existing, proven technology. In the vision it presents, Australia's electricity would be generated by wind turbines (40%) and concentrated solar thermal plants (60%), with some back up from existing hydro electric generators, from small scale photovoltaic generation, and from standby biomass burners. Their report can be downloaded from:

<http://beyondzeroemissions.org/zero-carbon-australia-2020>

While the Zero Carbon Australia Stationary Energy Plan is significant in that it demonstrates that zero emissions electricity generation is feasible, their formulation is not the only one possible. It appears likely, however, that wind energy will play an important role in our transition to renewable energy, and that substantial growth in the wind energy sector is both likely and desirable.

## **The impact of electricity generation**

While most of Australia's electricity is consumed in our cities, the vast majority of it is produced in rural areas.

About 85% of electricity generated in Victoria is from power stations fueled by brown coal. All of Victoria's brown coal fired power stations are located in rural communities. The dirtiest of these, Hazelwood power station, emits more than 1.5 tonnes of CO<sub>2</sub>-e for every 1 MWh of electricity sent out. All emit more than 1.1 tonnes CO<sub>2</sub>-e/MWh. In addition, these power stations release a range of poisonous substances into the atmosphere, including arsenic, mercury, fluorine, cadmium, lead, selenium and zinc, as well as large quantities of very fine particulates, also known to be harmful to human health<sup>1</sup>. The power stations themselves are large structures that are visible from great distances — their exhaust stacks and cooling towers are particularly tall and imposing. They consume huge quantities of water, and the open cut mines that supply their coal form vast and continually expanding scars across the landscape. The fertile farmland engulfed by these mines is lost to productive use forever.

In contrast, wind turbines produce no emissions during operation, and even when manufacturing and construction emissions are included, they produce only 0.02 tonnes CO<sub>2</sub>-e/MWh. A recent review by the National Health and Medical Research Council<sup>2</sup> concluded that there is no scientific evidence of health impacts from wind turbines. Wind turbines are tall, and are therefore visible from long distances. However, they consume no water, they require no fuel, and they take up a very small area of land, which does not expand as time goes by.

## **Community consultation**

As a local community based group, we believe in the right of communities to be consulted about projects that are planned for their area. Community engagement in the issues that affect them, such as climate change, is vital not only to the functioning of our democracy but also to the future of our planet. We particularly support the development of community scale and community owned renewable energy, such as the Hepburn Wind Farm, or the wind farm being considered by the Mount Alexander Sustainability Group in Castlemaine. There are many excellent examples of community owned renewable energy projects throughout Europe. These provide models that could be further developed here. Where developers from outside a community wish to propose a wind farm development, positive models for community consultation and engagement have been developed by companies such as Pacific Hydro. With provision of good information and with proper consultation, communities are more likely to embrace wind farm proposals.

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<sup>1</sup>The ABC's Four Corners website has some interesting links to information on the health impacts from coal: <http://www.abc.net.au/4corners/content/2010/s2870647.htm>. More information is available from the World Health Organisation and other health research and advocacy organisations.

<sup>2</sup>The review can be downloaded from the NHMRC's website at: <http://www.nhmrc.gov.au/publications/synopses/new0048.htm>

## **Economic benefits**

The transition to renewable energy is bringing substantial economic benefits to the rural communities where renewable energy projects are planned. For local economies in areas where wind farms are developed, direct benefits include the ongoing payments to landowners for hosting the turbines, the creation of jobs, and the support for community groups and events provided by community trusts established and financed by the wind farm owners. Where wind farms are community owned, these benefits can compound as profits from the wind farm are also kept in the local economy. While there is a large net outflow of funds from most local economies to pay for energy consumption, communities that host and even own wind farm developments can benefit from a net inflow of funds.

## **Concluding comments**

In some of the submissions to this inquiry, and in other comments made in newspapers and websites, there appears to be some attempt to foster conflict between rural and urban Australians on this issue. Typically these comments suggest that all support for wind farms comes from ‘city slickers’ who don’t care about what happens in country areas. In fact, we believe that there is widespread support across all Australian communities for the development of renewable energy, and for a reduction in our dependence on fossil fuels. Climate action groups and sustainability groups are being formed by Australians in communities across the country who are frustrated by the power of fossil fuel interests and who want to see real action to reduce greenhouse gas emissions and to tackle climate change. The need for a transition to renewable energy is much more pressing and serious than any inner-city fad, and pressure from both rural and urban communities to take serious action on this issue will only build.

The early impacts of climate change are already with us, with the increasing frequency and severity of droughts, floods and bushfires. Rural communities are on the frontline, facing these challenges as part of a day to day reality, but all Australians are affected by their consequences. The recent floods in Queensland, for example, have stripped billions of dollars from our economy and the damage to infrastructure will cost billions more to repair. We simply can not afford to ignore the consequences of climate change. Business as usual is not an option, and wind farms are an important component of the solution.