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The New Zealand Recreational Canoeing Association (NZRCA)

This group is the representative group for canoe clubs and recreational kayakers nationwide, and are the official representatives for the NZ Canoe Federation. The focus of this group is conservation of our river resources...This association have been extensively involved in resource consents in relation to energy projects in the past...

The NZRCA strongly value the waterways in New Zealand because of the important role they play in their lives i.e. they need waterways for canoeing and kayaking. However, they also look beyond their immediate interest and discuss the environmental and economic implications of damming more of our rivers... The NZRCA "value natural river environments very highly" and do not want the energy development to have an impact on these environments (1)...

The NZRCA already believe that New Zealand has scarce water resources and do not wish for this amount to decrease... Due to the strong support lobbies for hydro-power in New Zealand..., the NZRCA has felt a need to develop a compelling argument against future hydro developments as part of the **future** energy strategy (2)...In their opinion, the effects of hydro-power on rivers are large and potentially irreversible making it non-renewable (3)...They use arguments based on international evidence e.g. the drying up of the Colorado and Humboldt rivers in USA, and also the impacts of increasingly dry summers and pressure on our own river systems...

Therefore to respond to the Draft Energy Strategy and express their concerns for the rivers and recreational side they prepared a submission exploring the effects of hydro dams and the environmental, social and economic costs of them... The NZRCA submission described what they believe to be the negative impacts that further development of HEP explored in the strategy such as... The submission outlines that hydro systems may result in pressure on remaining free flowing rivers and cause significant damage to river environments (4)...

Proposal:

...According to the Draft New Zealand Energy Strategy, there are 4 main areas in which these possible actions can be grouped. These are... For NZ's energy use to be optimal, these priorities all need to be taken into account and combined in the best way possible for the country in the long and short term. The ideal course of action should focus predominantly on a long term solution; however measures also need to be in place for the short term period.

In the short term, I believe the best course of action is to firstly focus on oil security and transport. Half of our total energy needs are met by oil imported from overseas. This is not a secure form of energy, as New Zealand's isolation and open economy means the country is vulnerable to increases in oil prices which is potentially harmful to New Zealand's economy. This reliance will continue for decades to come, so measures need to be implemented during this time to increase oil security and transport... This can be done by diversifying transport energy sources which will help stabilise energy security and create resilience. Also, increasing awareness in the business and residential sectors would reduce New Zealand's reliance on oil, therefore making the energy economy more stable (5). However, this is only ideal in the short term, as reliance on imported oil is beginning to be economically unfavourable to the overall economy, due to the increase in oil prices (6) and the rise of environmental safety measures such as the Emissions Trading Scheme.

Issues with the short term measures means that a long term solution needs to be put in place to ensure the future of New Zealand's energy is managed over a longer time. The aim to be sustainable over the longer term is highly important consequently short term measures are inadequate as the only solution. In order to have a sustainable energy future NZ needs to ensure it caters for each of the environmental, social and economic dimensions...

In the long term, I believe the focus should be on developing New Zealand's renewable resources. This is in my opinion, the option that is the most sustainable and the most viable solution (7).

New Zealand is completely unique in that the country has a range of renewable resources which are able to be harnessed for energy production. These include wind power, solar power, hydroelectricity, geothermal generation and the possible prospect of harnessing tidal energy in the future. Having these resources spread throughout the country and so close to the consumers provides a huge benefit to New Zealand, as the factor of instability due to external markets is eradicated, so energy supply and cost is made more secure. This idea is better than the idea of developing and enhancing oil security and transport. Enhancing oil security and transport keeps the country reliant on the overseas non-renewable resources, which leaves New Zealand susceptible to instability from these external factors. Developing renewable resources within New Zealand however protects the country from these factors, keeping our energy market in our own control... (8)

Using renewable resources has minimal impacts on the environment... This means they can continue to generate energy without depleting a natural resource. This makes focussing on renewable energy very environmentally sustainable which is important for New Zealand's 'Clean and Green' image. This image is significant for other sectors of the economy such as horticulture and tourism (9)...

People perceive non-renewable energy sources as 'dirty' and harmful for the environment, and evidence of pollution of the air and waterways is frequently advertised....

A focus towards the development of renewable resources is better than the idea of the development of petroleum and mineral fuel resources as it is more environmentally optimal. Renewable resources are better for the environment in terms of improved air quality and health and a reduction in greenhouse gas emissions. With the Emissions Trading Scheme... the increase in cost of having a carbon footprint and the increase in taxes on non-renewable resources means a reliance on this form of energy will not be an economically or environmentally favourable energy scheme for the future (10).

Developing renewable resources also is ideal because it can work on both large and small scales within the country...

However, developing New Zealand's renewable resources is not a flawless plan, and requires some additional measures to be implemented to improve it. The first of these is the need for a diverse range of renewable technologies to be used to generate electricity. Renewable energy can be unreliable as a lot of methods are dependent on uncontrollable factors such as the wind speed and sunshine hours. However in using a combination of many techniques such as geothermal, wind, solar and hydropower to generate NZ's electricity, a reliable system will be obtained which ensures there is always adequate energy to meet New Zealand's energy demands resulting in a sustainable energy future. (11).

Research into new energy technologies also needs to be undertaken to optimise the development of NZ's renewable resources ... areas that could be looked into are the harnessing of tidal energy... Further research into these could further diversify the energy resources being used within the country, securing energy supply in doing so...

I have proposed a combination of courses of actions which I consider are the best options for New Zealand in both the short term and the long term... The ideal long term solution that should be implemented is the development of the country's renewable resources, with the addition of ensuring reliability through researching new technologies and providing information and raising awareness to New Zealanders (5).