Daniel Dacey

From: [redacted]
Sent: Sunday, 31 May 2015 2:06 p.m.
To: Climate Contribution
Subject: Submission 10949

I wish to make a submission to the ministry. Rather than writing out all my ideas I find that I am in complete agreement with the attached submission of Mr Brian Cox of the Bioenergy Association of New Zealand.
My personal details are as follows;
Name; Simon victor Breeze
Address; [redacted] 0985 Qualifications; Bachelor of Science from University College, Cardiff, UK Major Subjects; Chemistry and Geology (1962) Career; 42 years as a teacher of Senior Chemistry, Physics and Science both in NZ and overseas.

A lifetime of interest in Climate Science.
Member of "Climate Realists and NZ Climate Science Organisation

Name

Brian Cox

Organisation
(if applicable)

Bioenergy Association of New Zealand

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Objectives for the contribution

1a. We have set the following three objectives for our contribution:

- it is seen as a fair and ambitious contribution – both by international and domestic audiences
- costs and impacts on society are managed appropriately
- it must guide New Zealand over the long term in the global transition to a low emissions world.

Do you agree with these objectives for our contribution?

Y

Yes

No

1b. What is most important to you?
The third objective is most important as it is this objective that can provide the opportunities for the first two objectives. However to achieve this objective we should be focusing on the immediate gains that can be made and are foundation stones for the future. Bioenergy can provide a number of these immediate gains.

What would be a fair contribution for New Zealand?

2. What do you think the nature of New Zealand's emissions and economy means for the level of target that we set?
The nature of emissions have a bearing on the target set but more significantly is the nature of the opportunities available to New Zealand. In the bioenergy sector alone there are significant near term opportunities that could be achieved and which should be taken into account when setting the target.
The Bioenergy Association supports the suggested current short and long term targets but would encourage the Government to more actively pursue the short term opportunities:
- An unconditional target of five per cent below New Zealand's 1990 GHG emissions levels by 2020.

* A conditional target range of 10 to 20 per cent reduction below 1990 GHG emissions levels by 2020 if there is a comprehensive global agreement
* A long-term target of a 50 per cent reduction in emissions below 1990 levels by 2050

It is estimated that implementation of the New Zealand Bioenergy Strategy,[1]<http://www.bioenergy.org.nz/documents/submissions/#_ftn1> whose development was led by the Bioenergy Association, could deliver by 2040, and by way of solid, gas and liquid biofuels initiatives, nearly 40% of the annual greenhouse gas emission reductions of 31 million tonnes required to be achieved to meet the Government's 50:50 target by 2050[2]<http://www.bioenergy.org.nz/documents/submissions/#_ftn2>. Transport biofuels would provide most of the estimated CO2e savings at just under 11 million tonnes per year or 35% of the total required. The Bioenergy Strategy appears to provide similar greenhouse gas reductions to MED's Energy Outlook 2009/2010 "Changing Gear" high uptake scenario.
To achieve these targets in the bioenergy sector Government will need to put greater emphasis on supporting and encouraging the heat market to use wood fuel, and encourage farmers to integrate the use of farm residues and waste for the production of bioenergy products. Development of a reliable and sustained wood energy market in the period up until 2020 will provide a platform for development of the liquid biofuels market post 2020 by encouraging active trade in biomass related feedstocks.
In addition biogas production can reduce emissions as we still only have only 10 of our 300 + municipal waste treatment plants cultivating biogas for productive use, and landfills which will continue to emit GHG for 15 + years after dump closure. Emissions can be reduced if instead of putting organic waste into landfills we process it into

useful gas for heating or use as a transport fuel. Reductions of emissions in the agricultural sector can occur if organic farm wastes are processed into energy.

How will our contribution affect New Zealanders?

3. What level of cost is appropriate for New Zealand to reduce it greenhouse gas emissions? For example, what do you think would be a reasonable impact on annual household consumption?
Bioenergy Association has identified that there are many bioenergy opportunities that are economic today in niche situations. With encouragement and zero cost support from Government the number of opportunities that are taken up would be significantly expanded. The cost to households would be near zero but the national economic, environmental ane environmental benefits would be significant.
In the short term the development of the wood energy and biogas utiliseation by farmers and heat users requires only light handed Government support. These include requirements that central and local government consider wood energy options for their heat using facilities, eg municipal swimming pools, so that by example other potential users would see that business risk is manageable. Such leadership would allow an orderly expansion of the wood fuel market.
The Bioenergy Association engaged BERL to evaluate the economic value of implementation of the NZ Bioenergy Strategy and BERL's analysis showed that it could be a $6billion sector.

4. Of the opportunities for New Zealand to reduce its emissions (as outlined on page 15 of the discussion document), which do you think are the most likely to occur, or be most important for New Zealand?
The world is already and naturally moving to an era when the economy can no longer be dependent on petroleum and coal. Transition to a lower-carbon economy provides economic, employment and environmental opportunities via bioenergy. These are areas where NZ can be a world leader as NZ has a comparative advantage in using our renewable natural resources to achieve these benefits.
Summary

5. How should New Zealand take into account the future uncertanties of technologies and costs when setting its target?
The most important aspect will be developing a national strategy on the utilisation of our renewable natural resources for achieving economic, employment and environmental outcomes via energy. Without a base plan nothing can be measured. This strategy needs to be developed with the private sector and the private sector should also invited to assist in developing supporting policies.
Other comments

6. Is there any further information you wish the Government to consider? Please explain.
The government has never involved the bioenergy sector in evaluating opportunities and developing solutions. Getting a Government interest in the sector would in itself have a flow-on effect to encouraging other parties to take an interest. Government focus has been on the long term liquid biofuels market without any consideration of the short term opportunities that are achievable now and would provide a platform for the longer term development of the liquid biofuels market.
The submission is based on the following major advantages of bioenergy:

- It is a renewable form of energy, and provided the wood or organic matter is sourced from sustainably managed resources or wastes it is considered to be a carbon neutral fuel
- In many cases either wastes or residues can be used, so it provides a return for materials or resources that would otherwise be landfilled and contribute to greenhouse gas emissions
- Air quality can be significantly improved by adopting modern bioenergy technologies
- The value of land and farming incomes can be enhanced by either selling biomass for energy or supplying wastes which may otherwise attract land disposal costs
- The planting of biomass in many forms can improve and enhance the landscape (prevent soil erosion, reduce nutrient losses to waterways, improve aesthetics, enhance biodiversity and reduce carbon emissions)
- It potentially both contributes to establishing new industries and supply chains in rural areas and provides new opportunities for employment
- Biomass is one of the few renewable energy forms that can be stored or converted into heat, electricty, liquid biofuels and gas

- Biomass is widely distributed in one form or another and is often available close to where it is needed, although this is largely dependent on site-specific circumstances.

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[1]<http://www.bioenergy.org.nz/documents/submissions/#_ftnref1>
http://www.bioenergy.org.nz/NZBioenergyStrategy2010.pdf

[2]<http://www.bioenergy.org.nz/documents/submissions/#_ftnref2>
http://www.bioenergy.org.nz/documents/OP4-Bioenergy-Strategy-Carbon-Dioxide-Savings.pdf