

22 September 2016

Oral submission from the Bioenergy Association of NZ in support of ratification of the Paris Climate Change Agreement

My name is Grant Dunford and I am a Bioenergy Association Board Member. I have been delegated to make this submission on behalf of the Association and its members.

Support for ratification

1. The Bioenergy Association is a sector association and its membership includes a wide range of people involved in the bioenergy sector, from feedstock and biofuel producers, through to investors in bioenergy facilities, academics, researchers and commercial parties. Membership covers all bioenergy fuels and technologies including;
 - liquid biofuels producers and distributors
 - wood energy fuel and equipment suppliers (including wood chip, wood pellets)
 - biogas (landfill gas collection, agricultural digestion, users of biogas fuel for transport)

In essence members cover any opportunity for the production of energy from biomass and organic waste, and its subsequent use.

2. The Bioenergy Association supports the ratification of the Paris Climate Change Agreement, and believes that the targets proposed by the Government are achievable without resort to the purchase of international emission trading units, provided that there is a decisive programme of complementary measures led by Government.
3. Ratifying the Agreement and so becoming a Party to the Agreement is in New Zealand's long-term national interests. Implementation of the Agreement will not only protect New Zealand's economic, social, cultural and environmental interests, but will open up areas of economic, social and environmental benefit.
4. It will also help demonstrate commitment to the global response on climate change, maintain our positive international reputation and provide certainty that we can retain our ability to influence international climate change processes.

5. While ratification will impose some significant domestic costs in some areas of the economy, there are particular domestic mitigation opportunities that will assist early transition to a post petroleum era in keeping with Global development, but where we are currently lagging. These include:

- Waste to Energy opportunities in the Regions that would support their economic resilience while reducing environmental and air quality impacts.
- Agricultural waste processing that would support diversification, productivity and reduced environmental impact, particularly into waterways.
- Production of co-products such as bio fuels, bio-fertilisers and extraction of chemicals

As we know, Petroleum is a finite resource and while still relatively abundant there will be a time when its scarcity will again drive up prices. The initiatives that can be taken today as part of GHG emission mitigation need to be well established before petroleum again becomes more costly.

6. We cannot afford to underinvest in achieving our goals. The Government has established the Emissions Trading Scheme (ETS) and that, properly configured, can provide incentive for transition to a low carbon economy. However the Government has stated that the ETS alone is unlikely to provide enough incentive to achieve all the targeted emissions reduction and that forestry, domestic mitigation and purchase of international emission reduction units will be necessary.

It seems obvious that we should focus on domestic reduction of carbon emissions so that purchase of international units is avoided.

The ETS as a “stick” mechanism requires some complementary “carrot” mechanisms to give recognition to the reductions in carbon emissions that are possible through increased investment in renewable energy bioenergy plant.

7. Work undertaken by the Bioenergy Association has shown, that with minimal assistance from appropriate policies and programmes at minimal cost, that the sector could contribute 3.8 Mt CO₂-e by 2030 and 7.7 Mt CO₂-e by 2050. Many of these mitigation opportunities are self-funding but require leadership and facilitation. Ratification will assist this. Stronger leadership by example, direction and legislation would ensure this minimum while providing opportunity to increase the mitigation volumes and economic benefits.

8. The Paris reduction targets are substantial and the future costs of acquiring international emissions units will be material to the economy unless domestic mitigation and forestry contributions to emission reductions become significant. If there is a risk that international units may have to be purchased, then spending the money on increasing domestic mitigation rather than overseas is prudent investment and would provide lasting economic and wellbeing benefits.
9. In May 2016, 22 energy efficiency and renewable energy organisations, and territorial councils held the “Yes we can!” symposium, Hosted by the Bioenergy Association. Its’ purpose was to identify how significant a component of the GHG emission reductions could be met entirely by domestic emissions reductions from this sector. The aim was to avoid the need for government to purchase emission reduction units from international carbon markets by redirecting these otherwise required emissions unit acquisition costs back into growth in the domestic economy through new employment, business opportunities and achievement of environmental outcomes. The symposium has shown how, by working collaboratively, those interested in renewable and the efficient use of energy can leverage each other’s strengths and achieve more than individual initiatives. This collaboration needs to be extended into practical application.
10. The symposium and analysis showed that there is already significant mitigation being undertaken by business and communities, but by adding coordinated programmes and appropriate assistance, a further 1 to 7 Mt CO₂-e per annum GHG mitigation could be achieved by 2030 from this sector. This level of GHG reduction is around 2-12% of the 2030 target.
11. A key message from the initiative is that because the co-benefits are for “public good”, which would include employment, regional and Maori economic growth and wider environmental improvement, (and while?) they are critical to achieving the benefits (of) the climate change programme, will require partnering between Government and the private sector. While the benefits of improved energy productivity can often be captured by business, in today’s energy market the investment in renewable energy opportunities is often not an economically rational decision for business. Economically, fossil fuel solutions are often still the least costly and many of the benefits such as increased employment etc. are public good benefits not able to be captured by the investor.

12. The GHG mitigation programme therefore needs to include territorial government, sector associations and Central Government as partners to a coordinated and agreed plan of action. The consequence of not having a partnership is a lack of action to achieve GHG mitigation, reduced overall effectiveness, or the private sector individual players subsidising the achievement of the public good.
13. By Government and business working together the synergy between public and private benefits can provide strong drivers for increased GHG emission reduction, while each going alone makes the achievements more difficult. The contributions from the stakeholder organisations to the Yes We Can symposium showed the extent to which business is prepared to push its investment, and the importance of central and local government as major facility owners.
14. Ratification must be done on the understanding that in order to achieve what has been agreed to, there needs to be a nationally agreed plan of action across many sectors.
15. The Association is presently developing a plan of action for achieving GHG emission mitigation and will soon be presenting this to the Government.

I now turn to the opportunities

16. The Bioenergy Association has identified that there are many bioenergy opportunities that are economic today in niche situations.
17. The development of wood energy and biogas utilisation by heat users requires relatively light handed Government support. Because of the large number of heat plants owned by Government these measures should include requirements that central and local government consider wood energy options for their heat using facilities, eg municipal swimming pools, hospitals etc so that by example, other potential users would see that any business risk is manageable. Such leadership would allow an orderly expansion of the bio-fuel market, and particularly, the wood fuel market.
18. The development of biogas utilisation by farmers requires a separate and more creative approach to offset the initial investment cost and to establish and quantify the added value benefits.
19. This 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 thus contribute to greenhouse gas emissions
- Air quality can be significantly improved by adopting modern bioenergy technologies
- The value of land productivity 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 contributes to establishing both new industries and supply chains in rural areas, as well as providing new opportunities for employment and economic resilience.
- Production of wood fuel from forest harvest residues can provide a significant revenue stream for forest owners.
- It can also assist by firming the profitability of wood processors who are currently struggling to remain viable.
- Biomass is one of the few renewable energy forms that can be stored ready for conversion into heat, electricity, 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.

20. Bioenergy can be a significant contributor to reduction in carbon emissions. Currently around 20% of our forest production is wasted – it can be used to replace fossil fuels and thus contribute to emissions reduction.

21. The use of biogas technologies can reduce the emission of methane which is a 24 times more significant contributor to climate change than carbon dioxide, and the use of liquid biofuels by transport can be a significant opportunity for further reduction of greenhouse gas emissions.

22. Bioenergy is often based on well proven technology and so doesn't require research or "low probability exploration" such as is the case for petroleum, but what it does need is facilitation so as to speed up growth of the market.
23. Use of biomass from wood harvest and processing residues, plus use of organic municipal liquid and solid waste are resources whose costs of creation are already sunk costs, but which can be opportunities not only for achievement of climate change targets, but will also create economic growth, employment and other environmental benefits.
24. In addition local government owned waste water treatment plants are significant emitters of methane yet biogas technologies can reduce these emissions. We still only have only 10 of our 300 + municipal waste treatment plants cultivating biogas for productive use, and we have 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 also processed into energy.
25. The Bioenergy Association engaged BERL to evaluate the economic value of implementation of the NZ Bioenergy Strategy and BERL's analysis showed that bioenergy could be a \$6billion sector.

Achievement of the Paris Agreement targets

26. 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, environmental and market opportunities via bioenergy. These are areas where NZ can be a world leader as we already have a comparative advantage in renewable natural resources to achieve these benefits.
27. The Bioenergy Association strongly supports ratification of the Paris Agreement.
28. It also supports the establishment of a cooperative, collaborative platform for Government to produce a realistic plan for reduction of greenhouse gas emissions in New Zealand.