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Senate Economics Legislation Committee
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Inquiry into the Renewable Energy (Electricity) Amendment Bill 2009 and a related bill

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This submission relates to the inclusion of native forest wood “waste” as a renewable energy, subject to the current MRET restrictions.” *No legislative amendments are required, it is stated.*

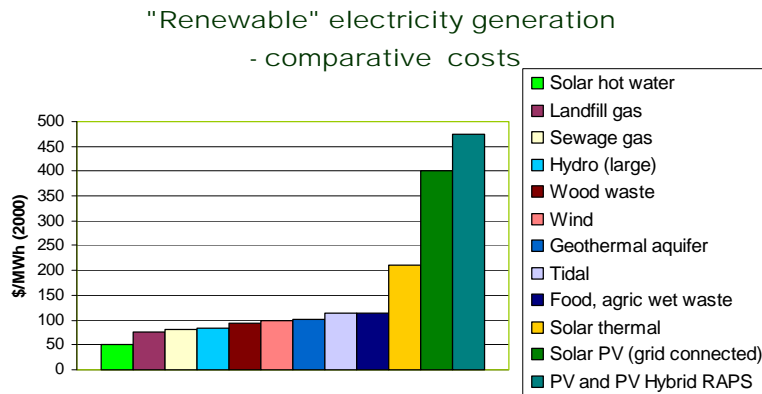
While technically this can be described as “no change,” in practice it would mean a very significant change, as it would override current state bans in NSW and Victoria, as recognised in the COAG Options Paper 2008.

1. The expansion of the Mandatory Renewable Energy Target to 20% founded upon simply redefining some greenhouse intensive energy sources as “renewable” will not achieve real reductions in greenhouse emissions. Any use of native forest wood, whether defined as “waste” or otherwise will add to greenhouse gas emissions by encouraging continuing high levels of native forest destruction.
2. Virtually all of Australia’s “waste” woodchips are the leftovers of around six million tonnes of native forest woodchip exports per year. Continued availability of this so-called “waste wood” depends on the continued destruction of vast areas of native forests for woodchipping and export.
3. For example, in the south east of NSW, South East Fibre Exports Pty Ltd, the Eden chipmill exports 1 million tonnes of native forest trees a year from Eden. The company says that this will generate 36,000 tonnes of “waste” for it to burn in a wood fired power station at its chipmill. Without wholesale industrial scale destruction of our best carbon sinks, our forests, this “waste” would simply not be available.
4. To encourage any technology or industry which depends on the continuing operation of such a massively greenhouse polluting industry does not make environmental sense. Production of liquid fuels or electricity from native forest biomass is not carbon neutral and will generate many times more greenhouse gases than fossil fuels if the whole life cycle of the wood is taken into account.
5. One preliminary estimate¹ puts the greenhouse impacts of wood fired power at 6.4 times those from coal fired power. When a forest has been felled and the wood is burned, it takes 80 years before the emissions from the wood burning to be neutralized by the regrowth forest.
It is more than twice as long when all logging emissions such as loss of soil carbon are taken into account.
6. Australia’s Energy Minister, Martin Ferguson advocated before the 2007 federal election that an “additional” 4 million tonnes of wood “waste” should be burned as fuel. If a similar ratio of production to “waste” as anticipated in Eden were applied, this would require

¹ Dr John Kaye <http://parliament.nsw.gov.au/prod/parlment/hansart.nsf/V3Key/LC20081202055>

Australia's woodchip production to rise to 111 million tonnes a year, almost 20 times the current levels.

7. It has been estimated² that 38 MJ of energy are required to produce a litre of ethanol from an agricultural crop which has an energy value of 22 MJ/litre. A similar outcome could be expected using native forest biomass.
8. Energy from biomass is only as sustainable as its feedstock. Native forests are a vast store of carbon, sequestered over millennia. Much of this carbon is stored below ground or as coarse woody debris. When a native forest is logged much of this stored carbon is released. This must be taken into account when assessing the "sustainability" of native forest logging and industrial uses of its "waste" products.
9. History tells us that whatever definition of "waste" (see Appendix) is used, it will inevitably lead to additional logging.
10. Generations of politicians and forestry officials have stated over 40 years that the Eden woodchipping industry uses "waste" wood; that the "timber" industry of the south east is sawlog driven with residue, "heads" and "butts" being chipped. Forestry officials and politicians, including Ministers responsible for forestry continue to make this claim today. Thus past experience tells us that policy and industry development supposedly based upon the use of native forest "waste" in reality use anything but waste.
11. Further, even if, in the unlikely event that genuine waste from a logging operation were collected and processed to generate energy (a labour intensive and expensive process), this would be a disaster for the long term productivity and ecological recovery of the forest. Continuing soil fertility depends on the return of nutrients from "forest waste" to the soil. In a presentation to the Bega Valley Shire Council on 8 July 2008, ForestsNSW Regional Manager Ian Barnes claimed that ForestsNSW believes that the soils of the far south coast, which are very old and low in nutrients, would support ongoing logging rotations for 400 years because logging waste is returned to the soil by decay and via post logging burns. I find this belief problematic, but it is completely impossible to believe if logging debris and waste are removed and burned. Removal and burning of logging residue deprives the soil and any wildlife surviving after the logging of nutrients and shelter which are essential if the regrowth forest is to have an economic or ecological future or become capable of reabsorbing the carbon lost in the original logging.
12. While Regional Forest Agreements assert that native forest industry is sustainable, there is mounting evidence that native forests are replacing themselves at a slower rate than they are being depleted, overwhelmingly for woodchips.
13. Including native forest biomass in MRET will displace genuinely sustainable biomass, wind and solar energy. See table below:



Compiled from Commonwealth of Australia figures

² Dr David Pimentel, Cornell University, 2001

14. Any process which depends upon the continued industrial scale forest destruction – accounting for over 80 percent (95% in some regions) of wood taken from the native forest – cannot be viewed as renewable. Native forest logging is a massive greenhouse polluter, responsible for up to 5,000 tonnes of CO₂ for each hectare logged, depending on the forest type and the logging regime. For dry forests, such as we find in SE NSW it is typically up to about 1,000 tonnes per hectare.
15. Wood “waste” continues to store greenhouse gases for decades if left in the forest. As woodchips/ paper it has a likely life of about 3 years. When burned for power it becomes instant carbon dioxide.
16. Industry claims that huge amounts of power, jobs and money can be generated without a single extra tree being logged are pure fantasy.

Recommendation:

1. No native forest wood biomass should be allowed under the Mandatory Renewable Energy Target scheme.
2. Only wood from existing plantations should be permitted.

Appendix

Definitions of “waste”

1. Forests NSW

“On the hardwood side of the business,as with softwoods, there is no wastage. Every bit of the hardwood log sent to the mill is used.”

Source: *The Bush Telegraph*: February - April 2003: Where does State Forests' wood go?

A living tree in growing forest can be classified as waste.

Source: Yield Simulator, Southern Region, SFNSW, May 2001, page 9

2. Timber Communities Australia

“...it should never be lost sight of that the material that supports this business is the residue of sawlog harvesting operations required to meet Australia’s structural grade timber markets which if not sourced locally from the very small percentage of Australia’s forests that are available for sustainable management, would be imported probably from unsustainable operations elsewhere in our region and adding to Australia’s trade deficit in timber products.”

Source: TCA Media Release 8th December, 2008

3. Consultants to the logging industry, MBAC Consulting Pty Ltd

“Wood waste projects are also inherently more difficult to get to fruition because unlike wind or solar water heaters, wood waste projects must secure a large volume of fuel for the project.”

“Due to public concerns, retailers either will not purchase native forest wood waste RECs or are willing to pay a significantly lower price for those RECs. The criteria in the regulations were designed to address these public concerns but unfortunately, they have clearly not done so.”

“Wood waste projects, in some cases, may be relatively more expensive to operate than other sources of renewable energy, such as wind, landfill and solar water heaters.”

Source: Wood and the Renewable Energy Industry - Part 1 Global and Australian initiatives and impediments to the production of renewable energy from wood in Australia. May 2003

4. National Association of Forest Industries



Photo of “wood waste” in a National Association of Forest Industries (NAFI) brochure on wood fired power

The term “wood waste” refers to low grade timber material with no other identifiable market or environmental value. This includes material left that is left in the forest after the higher value

timber resources have been harvested. It also includes sawdust, shavings, off-cuts and other wastes associated with timber processing.”

Source: NAFI brochure “Forest industries and climate change.” 2007

“This harvesting, or wood waste as it is classified in Regulation 8 to the *Renewable Energy (Electricity) Act 2000*, includes the defective stems, large branches and logs cut from the heavily-branched upper reaches of the trees.”

Source: NAFI submission on the Renewable Energy (Electricity) Amendment Bill 2002.

5. Mandatory Renewable Energy Target

“the [current] MRET allows native forest biomass as an eligible fuel subject to this biomass being a harvest residue or processing waste, with further conditions around the harvesting operation. By contrast, native forest harvesting residue is excluded under Victorian and NSW schemes.”

Source: The COAG Working Group on Climate Change and Water. Design Options for the Expanded National Renewable Energy Target Scheme.2008. p.7

6. NSW Minister for Primary Industries, Ian McDonald

“....the Government has taken steps since 1995 to ensure that woodchips are obtained only from sawmill wastes and timber that will not be suitable for use by sawmills for solid wood products, along with the products of thinning and other operations to enhance the production of high-quality sawlogs. “

Source: Legislative Council Hansard, 8 Nov 2005

7. Mogo Charcoal Plant EIS

“The waste lie was illustrated in the environmental impact statement [EIS] when the State Forests assessment of the source of the extra 200,000 tonnes of forest recategorised whole forests as waste. State Forests said that standing trees are available for charcoal.

“Ironbark, woollybutt, bloodwood, grey box and maybe some spotted gum will be used. The least preferred is blackbutt, silvertop ash, stringybark and monkey gum. Angophora costata and the peppermint varieties will not be touched. The really old-growth trees are preferred because they produce much better charcoal. State Forests has a puzzling tree category titled “standing waste”, which is applied to trees that are not well shaped. Most standing waste would be considered to be perfectly good trees yet this standing waste will be used in the charcoal plant.”

Source: Hon. Richard Jones, Legislative Council Hansard 8 May 2002. Speech on the proposed Mogo Charcoal Plant.

8. Log truck observations

Observation of logs on trucks entering the Eden chipmill confirms that the so-called “waste” destined for chipping there is substantially whole logs, most of it from multi aged forests. The chipper can only process whole logs; it cannot process branches, crowns or butts. That is, it cannot process waste.

See: “Half an hour at the Eden chipmill corner” <http://www.youtube.com/watch?v=0vJuZya1X00>