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Submission

to

The Federal Minister for Environment

on the

Review of Australia's Renewable Energy Target (RET)

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For the Clarence Environment Centre
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Submission to the Federal Government's Review of Australia's Renewable Energy Target (RET)

The purpose of the Renewable Energy Target (RET) is to address climate change and reduce carbon pollution by bringing more renewable energy into the electricity market. So far, the Renewable Energy Target has been a successful, tripartisan government policy.

The Clarence Environment Centre (CEC) advocates:

Extending or expanding Australia's RET target to 90% by 2030. This will give investors and electricity network regulators the long-term policy certainty they need.

Over the long term extending the RET will lead to lower electricity prices, lower carbon emissions and increased competition. Removal of the RET would restrict renewable energy development, increase reliance on fossil fuelled generation and eventually push power prices higher. Removing the RET would put \$14.5 billion of investment at economy at risk and jeopardise the associated 18,400 projected jobs that would be created by that investment. Historically, wind generation has played a major role in pushing down wholesale electricity prices. In South Australia's where wind generation is high, prices have been significantly lower. The CEC would see any steps taken to reduce wind-powers advantage to supply low emission, low cost electricity as retrograde.

that any reduction or delay in the 41,000GWh target would significantly impact the development of utility scale solar plants in Australia and reduce their potential contribution to the RET by 2020.

The CEC notes that the terms of reference for the RET review include the Government's election commitment to reinstate native forest wood waste as an eligible renewable energy source. The remainder of this submission will focus on that commitment.

As a general comment the CEC believes that granting renewable status to wood waste from native forest logging operations is extremely poor public policy. The CEC notes that the terms of reference contains no supporting information in regards wood waste and in fact looks for all purposes to be something 'stuck on' as an afterthought at the bottom of the page. The CEC expects that the intended policy (to allow renewable status for native forest wood waste) should be supported by peer reviewed scientific evidence and not party political assertions.

Wood waste is in a class of fuels called biomass. The term "renewable energy" can mean different things to different people. The term has no generally accepted meaning but relates to some form of environmental benefit. Almost universally, definitions of 'renewable' include biomass. All it really describes is that an energy source is replenished at some arbitrary rate. Renewables aren't necessarily cleaner than non-renewables. Since biomass power stations are considered to be renewable, they are given an advantage over cleaner fuels like natural gas, which is a non-renewable fossil fuel.

The CEC sees no benefit in granting renewable status to wood waste from native forest operations. On the contrary, the CEC believes that the policy will have major environmental and economic disadvantages

The government claims to be seeking an "incremental improvement or displacement", over energy sources as coal and gas. Displacement may not occur. New generating facilities may simply displace true renewables like wind and solar power, causing a net loss for the environment. If native forest biomass wasn't eligible to generate Renewable Energy Certificates (REC's), then electricity retailers would be forced to buy REC' from wind and solar power stations. Wind is one of the cheapest energy sources and is about 10 times cheaper than solar. Biomass is the cheapest renewable except for where there are good wind sites. Proponents of biomass argue that its biomass technologies are a transitional step to cleaner technologies like wind and solar. However, increasing reliance on combustion technologies does not really pave the way for wind. No energy companies have established these technologies with a timetable for replacing them with clean renewables. Eliminating native forest biomass from renewables definitions would mean that wind (the cleanest option, and one of the cheapest) would get better funding.

Native forest waste biomass promoters try to claim that they're improving the environment. All biomass combustion technologies put pollution in the air in order to make "renewable energy." Anything that creates pollution in the course of producing electricity shouldn't be considered renewable. Wind and solar, even though they have some environmental impacts in their construction, don't have to keep polluting in order to make electricity. Anything that has environmentally damaging emissions that can be measured per kilowatt is not deserving of the various market advantages granted to renewable energy sources.

A large-scale bespoke wood waste power station is a significant investment. That investment needs assurances on long term waste supply contracts. Waste supply from native forests is highly variable due to issues like wet weather and the current downturn in the timber market. A 30MW wood fired power station (wfps) proposed for Grafton in NSW did not proceed because of the difficulty in procuring long term supplies of waste wood. What will happen is that the waste wood will be burned on site at local timber mills in unregulated 200kw power units. The NSW EPA has no jurisdiction over plants of this size. The power plant will operate with no pollution control equipment and there will be no one to monitor whether the fuel is certified native forest waste wood. This has been the experience in the United States.

Because of fuel supply constraints wfps operators in the U.S have often resorted to burning more hazardous types of waste. In some cases, wood waste facilities have sought to burn wood tar waste. In other cases, state agencies have allowed wfps to dispose of their oily water by spraying it on their wood fuel. Some states actively encourage industrial wood burners to burn waste tyres. It has been argued by some companies that they need to co-fire tyres in order to become "leaner and meaner" in the deregulated electric market. Many industrial wfps are already permitted to burn tyres, treated wood waste, black liquor solids and/or paper sludges.

In timber mills, the waste is mostly sawdust and wood scraps. Fibreboard factories use formaldehyde (a hazardous air pollutant) and other toxic glues such as iso-cyanate. Although soy-based adhesives are available as alternatives, fibreboard manufacturers have been slow to switch to them. The toxic constituents of these glued and otherwise treated wood products make them unsafe to burn. Particleboard and other processed wood products can be contaminated with chlorinated plastics that are burned since they're hard to remove.

Wood waste is not the same as wood cut fresh from a forest. Wood waste can be contaminated with wood preservatives, binders, paints, glues, plastic, laminating materials or other non-wood substances. Particleboard, flakeboard, plywood and manufactured wood, have plastic laminates, chlorinated adhesives, or phenol and urea formaldehyde resins. Painted wood may include lead or mercury. Mercury has been used as a fungicide in paint. Treated woods are usually coated with creosote, copper chromium arsenate, or pentachlorophenol. Pentachlorophenol is a chlorinated compound, which will form dioxins and furans when burned. Burning wood treated with copper chromium arsenate (CCA) will release arsenic and chromium VI. Since copper serves as a catalyst in dioxin formation, any CCA-treated wood will greatly escalate dioxin emissions from industrial wood burners. In the U.S some wfps have been allowed to accept a certain percentage of chlorinated wastes, since wood waste suppliers are unable to completely isolate all vinyl-coated material. In construction/demolition wastes, there is likelihood of PVC (polyvinylchloride) contamination from many sources common in building materials. For example, all household electrical wire sold is coated with PVC plastic. Since this wire is made of copper, it's an extremely dangerous mixture to burn, since the copper will catalyze increased dioxin formation out of the PVC.

The EPA claims that no incinerator in the USA complies on dioxin standards. In addition to dioxins, furans and toxic metals, industrial wood burners also emit formaldehyde, phenols, benzene, naphthalene and chlorine, not to mention NO_x, SO_x, VOCs, and particulate matter. Even power stations equipped with electrostatic precipitators (ESPs), are known to boost dioxin emissions by retaining the exhaust gases in the temperature range where dioxins are formed. There are no safe levels for dioxins. Dioxin is a generic term for a range of hazardous compounds. Our knowledge of them is primitive. Some scientists in the U.S claim that there may be dioxins created in non-chlorine environments. CO₂, No_x, CO, CO₂, PM, ammonia, Acrolein, Formaldehyde, Acetaldehyde, Benzene, Benzene(a)pyrene, Napthalene,2,3,7,8 –Tetrachlorodibenzo -p – dioxin, 4 Nitrophenol, Polychlorinateddibenzo-p-furans are all required to be monitored in U.S power stations. It's easy to get fixated on the effects of CO₂ but the nasties in wood are far worse than coal. The Massachusetts Medical Society and the American Lung Association have both commented publicly on the unacceptable health risks associated with biomass power plants because of increased air pollution.

Burning wood with real time monitoring is crucial because combustion conditions can vary due to changes in fuel moisture content.

Waste wood energy projects only move greenhouse gases around. The logic behind the 'carbon neutral' argument could be used for a coal-fired power station if enough trees were planted to offset its greenhouse gas emissions.

There is no peer-reviewed documentation of the sustainability of repeated waste biomass removals from native forest harvesting operations. Trees may be renewable, but forests are not.

In the late '60's, when the export woodchip industry began in NSW the timber industry asserted that only forest wood waste and crooked trees would be sent to the chipper. 20 years later more than 90 per cent of the volume being taken from native forests was chipped.

Australia ended up with a low-value export, employing very few people, generating poor returns and driving unprecedented forest destruction. Now that the export wood chip market has collapsed we are now asked by that same timber industry to believe that only forest waste will be used for the generation of renewable energy.

Most Australians do not support the further subsidisation of the native forest harvesting industry. If the Federal government declares native forest waste wood as renewable then the electorate will see the policy for what it is; another subsidy for the native forest timber industry that has a proven track record of environmental destruction and an industry that cannot survive unaided.

Electricity prices for generators are falling in real terms. The viability of a wfps in the deregulated electricity market is highly questionable and the operators will inevitably seek to burn other types of waste and seek further government assistance.

It is acknowledged in NSW Government documents that NSW State Forests will continue to be unsustainably harvested until at least 2023. The Institute of Foresters Australia (IFA), the NSW Auditor General and the peak environment NGO's support that fact. This was a result of the Regional Forests Agreements. (RFA) The simple question is; how can the Federal government contemplate declaring as renewable, forest waste from these operations? Logging slash left to decompose on site is not wasted wood. It provides an excellent source of carbon and nutrients for forest soil, badly needed after the extraction of large quantities of biomass in the form of logs. Treetops, in particular, are very rich in nutrients. If logging slash is used for green energy, it may give rise to the "vacuum cleaner" effect. Instead of going into a site and hauling out logs, timber operators would be encouraged to remove all woody material. Chipping trees for electric power generation devalues a resource that should be treated as precious. Forests are far more valuable than wood chips. Logging contributes to habitat destruction and loss of native species.

The evidence now suggests that the carbon cycle associated with ancient forests is more complex than a simple input-output model suggests. Ancient forests do store more carbon than young forests. Australia has some of the most carbon dense forests on the planet, and the most efficient way for us to benefit from their carbon values is to leave them in the ground. Burning logging residues resulting from logging native forests will increase carbon emissions and further encourage ongoing logging, destruction and environmental degradation.

Environmental NGO's have already flagged that they will encourage consumers to avoid electricity retailers that deal in 'native forest waste' renewable energy.

Therefore the Clarence Environment Centre urges the Government to reject any proposal to grant renewable energy status to native forest biomass.

We thank the Minister for this opportunity to comment

Yours sincerely
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For the Clarence Environment Centre