Help stop the Eden woodchip forest furnace:

A guide to writing a submission opposing 'dead koala' power

27 March 2010

South East Fibre Exports (SEFE), owners of the Eden chipmill wants to build a wood fired power station burning native forest wood.

The NSW Minister for Planning has received the final Environmental Assessment (EA) for the project and will soon decide whether to approve the power station. If SEFE gets the go ahead for its power station it will be the first of many around Australia.

You have until 22 April 2010 to make your voice heard.

Points to make in your submission

1. General
2. If you care about the natural environment
3. If you are concerned about climate change
4. If you don't like woodchipping
5. If you live in or near Eden
6. If you want to see more renewable energy generated and used.
7. How to lodge your submission

1. General

1. The chipmill announced on 22 March 2010 that this project is "on hold," before it has even been approved. The Minister should therefore reject it or if he approves it, impose a condition that if no commencement has occurred within 6 months, the approval should lapse. Its status as "on hold" reflects the state of the international woodchip market and demonstrates how dependent it is on that market.
2. The fuel to be used is not "waste" and would not exist if one million tonnes of trees (almost 19,000 hectares of forest) were not logged each year to supply the chipmill.
3. The existing use of the proposed fuel generates substantially less greenhouse gas than the proposed power station because, as mulch, it decomposes slowly and transfers significant carbon to the soil.
4. The scope of this assessment is so narrowly defined as to make it almost meaningless. It examines in minute detail some aspects but ignores the bigger context. For example, it refers to the "terrestrial ecology" of the site as having "a disturbed under storey of exotic grasses", in other words, mown lawn, but totally ignores the immense ecological implications of intensive, industrial scale logging required to supply the fuel.
5. While acknowledging that deadly dioxins, furans and HAPs will be emitted, the EA does not examine the human health implications of the emissions <u>at all</u>.

2. If you care about the natural environment

1. Very hot water will be discharged into Twofold Bay. The temperature of cooling water discharged into Twofold Bay will be more than 21 degrees <u>above</u> the ambient water temperature in the winter. The implications of this are dismissed, but there are some serious consequences:
    a. The Weedy Sea Dragon (8-21), a threatened species, can only survive in temperatures less than 22 degrees. The EA says that the sea dragons will go somewhere else: they "may avoid the area around the outlet." Too bad for them if they don't.
    b. Green Sea Turtles. The presence of these creatures is noted but the report fails to mention that in other power stations in NSW, turtles are regularly trapped in cooling water pipes because they are attracted by the warmer temperature.
    c. Whales. Noise may interfere with whale migrations via Twofold Bay (8-10)
    d. Anti-fouling treatments (8-17). Toxic treatments may threaten marine life and mussel culture.
2. Emissions estimates, especially in relation to particulates and heavy metals assume that the wood will be clean and uncontaminated and no consideration is made for its exposure to salt.

a. SEFE CEO Peter Mitchell explicitly told the Bega Valley Shire council on 26 August 2008 that "municipal waste" was a potential fuel.
b. The stockpile of fuel will be stored a few meters from the ocean where it will be contaminated by salt, increasing dioxin levels.
c. Heavy metal content in ash will exceed allowable limits and additional approval from DECC will be required to use it on the SEFE Rockton plantation. Exposure to heavy metals has been linked to penis defects. http://www.smh.com.au/lifestyle/wellbeing/heavy-metals-raise-risk-of-penis-defects-20091202-k6es.html
d. A Canadian study commissioned the government of British Columbia (Canada) last year. "Emissions from Wood-Fired Combustion Equipment" http://www.env.gov.bc.ca/epd/industrial/pulp_paper_lumber/pdf/emissions_report_08.pdf found that basic emissions which could be expected include:
Acetaldehyde Alpha-pinene Beta-pinene Carbon monoxide (CO) Formaldehyde Methanol Naphthalene Toluene Total phenols Turpentine 2,3,7,8 Tetrachlorodibenzo-p-dioxin (TCDD) C/P 2,3,7,8-Tetrachlorodibenzo-p-furan C/ Hydrogen sulphide C/S Nitrogen oxides (NOx) Beryllium Cadmium and compounds Chromium (II) compounds, as Cr Chromium (III) compounds, Cr Chromium (metal) Chromium (total) Chromium, hexavalent metal and compounds Cobalt as Co metal Dust and fume Cobalt carbonyl as Co Copper, Dusts and mists, as Cu3 Copper, Fume Iron Lead arsenate, as Pb3 (A2O4) Lead chromate, as Cr Lead compounds Magnesium Manganese Molybdenum Nickel and compounds Particulate matter (PM) Phosphorus Selenium Silver Thallium Zinc Arsenic and inorganic arsenic compounds Mercury Hydrochloric acid Sulphuric acid Sulphur dioxide (SO2)

3. If you are concerned about climate change

1. Electricity generated from native forest wood is more greenhouse intensive than coal fired power.
2. It will compete with and potentially displace genuine renewables permitted under the Mandatory Renewable Energy Target MRET scheme. It will not be competing with coal.
3. The project depends for its fuel on the continued existence of the native forest woodchipping industry, one of Australia's biggest greenhouse polluters.
4. The EA does not look at the full life cycle of the fuel (i.e. it ignores the greenhouse impacts of native forest logging; it simply asserts this is "sustainable because it has Australian Forestry Standard (AFS) certification). It fails to examine the consequences of the one million tonnes of woodchipping each year, without which there would be no fuel.
5. It claims: "Improved environmental outcomes due to lower greenhouse gas emissions per unit of output compared to conventional coal-fired power generation technologies. The proposed plant would potentially avoid the emission of 23,800 t Of C02-e from fossil-fuel based power generation per year."
   Logging of native forests to supply the Eden chipmill has been conservatively estimated at over 18 million tonnes per year[1] with one estimate as high as 61 million and another as low as 9 million tonnes. Logging emissions must be counted in assessing the GHG implications of burning native forest wood for electricity. It is simply not valid to start counting at the furnace door; the whole life cycle of the fuel must be taken into account in measuring greenhouse impacts.

[1] **Carbon pollution generated by logging for the Eden chipmill**
According to Mackey et al "Green Carbon" 2008, the average carbon carrying capacity for all the SE Australia eucalypt forests is 640 tonnes per hectare. In those forests in SE NSW where the actual carbon stored is currently less than the carrying capacity, this is entirely due to the previous operations of the Eden chipmill over the past 40 years, so it is valid to use Mackey's figure of 640.
According to FOI information, in 2006-07 FNSW logged 14,388 hectares in the Eden, South Coast/Southern and Tumut areas.
The figures below do not include the emissions from running the mill, and transport associated with logging contractors or deliveries to the mill. The calculation is based on:
Area logged x Carbon stock per ha x 40% (loss from logging) x 3.666 (converting C to CO2
Thus, for NSW:
14,388 x 640 x .4 x 3.666 = 13,503,080 tonnes of CO2
For East Gippsland:
4,500 x 700 x .4 x 3.666 = 4,611,600 tonnes
Total: 18,114,680 tonnes.
40% of the carbon stored in a forest is lost to the atmosphere when it is logged, even after 150 years. The weight of a carbon dioxide molecule is 3.666 times the weight of a carbon atom. Approx hectares logged in East Gippsland in 2007.

When power generated from native forest is compared with coal fired power, if the full life cycle of the fuel is assessed, wood fired power is as much as 6.4 times more greenhouse intensive than coal fired power[2].

4. If you don't like woodchipping

1. Without ongoing woodchipping of a million tonnes of native forest a year, there would be no fuel available.
2. Sustainability of native forest logging. No serious attempt is made to assess this. It is simply deemed "sustainable" because most SEFE chips are certified under the highly controversial AFS. Japanese paper manufacturers are increasingly reluctant to accept AFS as an adequate label of sustainability and the biggest paper manufacturing company in Japan, Oji, does not accept it.
3. The EA claims "Improved environmental outcomes due to lower greenhouse gas emissions per unit of output compared to conventional coal-fired power generation technologies. The proposed plant would potentially avoid the emission of 23,800 t Of C02-e from fossil-fuel based power generation year." See point 4 under "If you are concerned about climate change."
   All emissions from logging should be counted in assessing the GHG implications of burning native forest wood for electricity. It is simply not valid to start counting at the furnace door; the whole life cycle of the fuel must be taken into account in measuring greenhouse impacts. GHG emissions from the proposed plant should be compared with those of other MRET approved technologies, not with coal fired power.
4. However, even if it is compared with coal fired power, if the full life cycle of the fuel is assessed, wood fired power is possibly 6.4 times more greenhouse intensive than coal fired power. It is claimed that "no native or plantation forest would be felled for the purpose of fuelling the plant" (19-3).Forests NSW expects that some timbers which are not currently used for woodchipping because they are either too red or too hard, and are not of sawlog quality will be used for power generation.

5. If you live in or near Eden

1. While acknowledging that deadly dioxins, furans and HAPs will be emitted, the EA does not examine the human health implications of the emissions at all.
2. Emissions estimates, especially in relation to particulates and heavy metals assume that the wood will be clean and uncontaminated and no allowance is made for its exposure to salt.
   (a). SEFE CEO Peter Mitchell explicitly told the Bega Valley Shire council on 26 August 2008 that "municipal waste" was a potential fuel.
   (b). The stockpile of fuel will be stored a few meters from the ocean and will be contaminated by salt, increasing dioxin levels.
3. It will not "improve the reliability of the local electricity supply." (19-2)
   In 2009, the Eden chipmill was closed for weeks at a time, for most of the year it was on a 4 day week. If Eden residents were counting on it to power their homes in 2009, they would have experienced many outages.
4. Emissions inventory states that "most of the particulate matter will be controlled," especially particulates of greater size. There is no examination of the nature, volume and consequences of particulates bigger than 10 microns. There is no justification provided for ignoring them. The EA leaves open the possibility that some of these bigger particulates will be emitted, but fails to provide any detail of the nature, volume and consequences of those emissions.
5. Odour. While it is acknowledged that sulphur dioxide, rotten egg gas will be generated, there is no consideration of odour as an issue to be addressed. Neither are the acid rain consequences of sulphur dioxide emissions addressed.

[2] Dr John Kaye MLC. Adjournment Speech 2 December 2008 "Our very rough analysis, based on forestry industry and peer-reviewed data, suggests that for every megawatt hour of energy generated by south-east native forestry biomass, more than 6.4 tonnes of CO2 would be released instantaneously. This is more than **6.4 times the amount of CO2 released from burning coal to produce the same amount of energy**. Certainly regrowth would bio-sequester some of this carbon but at a very slow rate. It would take about 80 years of regrowth to capture 5.4 tonnes, thus returning the greenhouse gas emissions to the same level as coal." http://www.john.greens.org.au/media/adjournment-speech-eden-chipmill-and-green-power

6. Bega Valley Shire Council Zoning. The chipmill site is currently zoned 1(A) agricultural, arguably not appropriate for this type of development.
7. Recreational divers will have reduced access to the chipmill jetty (8-23)
8. Anti-fouling treatments (8-17). Toxic treatments may threaten marine life and mussel culture.

6. If you want to see more renewable energy generated and used.

1. Electricity generated from native forest wood fired power is even more GHG intensive than coal.
2. In assessing greenhouse implications and calculating "avoided emissions" this power should be compared with wind or solar or other MRET approved technologies because it will be competing with and potentially displacing these technologies in the market place, not coal fired power.
3. The fuel for the power station is not "waste." It is material that already has an economic value and it is bought and sold in the market place. Only a tiny amount is currently incinerated. Burning it as electricity gives it a higher value because of implicit subsidies[3] available to it under the MRET scheme.
4. The greenhouse analysis highlights the arbitrariness of some current national and international conventions on measuring GHG emissions; e.g., deeming burning of biomass to be carbon neutral. The comparison between GHGs generated by current ways of disposing of wood "waste" as mulch and by the power station creates a nonsensical result. Mulching and composting add carbon the soil but slowly decompose releasing some CO2 over time. In burning, the entire product instantly becomes CO2, and yet the (greater) emissions from the burning are not counted, while the (smaller) emissions from mulching are counted. Where is the logic in that?
5. The project is wasteful. 75% of the heat is "lost."
6. Abatement Certificate Provider scheme. Eligibility (3-6) of the plant is unclear, especially with uncertainty surrounding the future of the Carbon Pollution Reduction Scheme. This should be clarified.
7. One of the claimed benefits of the project is "the generation of electricity from renewable biomass material in contrast to current practice which under-utilises a valuable resource," Burning wood from native forest which has been industrially logged for woodchips is not a renewable technology. At least 180 years are needed for most of the forest to replace itself once it is logged intensively for woodchips.
8. "The supply of around 22 GWh of base load power annually to the electricity grid"; The Eden chipmill is an ideal site for alternative forms of renewable energy which could be generated more cheaply at this site using wind, solar or tidal technologies.

7. How to lodge your submission

Post your submission to arrive by 22 March 2010 to:

Anna Timbrell
Environmental Planning Officer
Infrastructure Projects
Department of Planning
GPO Box 39, Sydney NSW 2001
Sydney NSW 2000

To read the full Environmental Assessment or make your submission on line, go to:
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=2914

For more information see: http://www.chipstop.forests.org.au/forests%20in%20the%20furnace.htm

[3] According to a study by MBAC Consulting "Global and Australian initiatives and impediments to the production of renewable energy from wood in Australia" May 2003, commissioned by the National Association of Forest Industries (NAFI), the maximum price payable for wood fuel under MRET is $41.05/ t. Maximum price payable for wood fuel without MRET $7.71/t. Thus the effective subsidy value of MRET $33.33/t