



THE COLONG FOUNDATION FOR WILDERNESS LTD.

Thursday 27th February, 2020

Ms Sally Munk
Principal Environmental Planner
Industry Assessments
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

Dear Ms Munk,

Objection to the proposed “energy recovery project” (recyclable materials burning) at Mt Piper Power Plant, State Significant Development (SSD-8294)

This proposed waste to energy facility will pollute Blue Mountains’ air and water, create toxic solid waste and undermine zero waste strategies.

The proponents, Energy Australia and Re.Group, have reframed justification of its incinerator technology seeking to present themselves as ‘green energy’ generation that will combat climate change, despite the proposal being less efficient than coal fired power generation^{1,2}. Under a green energy tag, however, the proposal seeks to pick up financial subsidies and appear benign. Reframing does not change the facts of the proposal. It is a waste and recyclable material burning project³, not a ‘green’ project (see 2015 EPA Waste to Energy rules Table 1 which includes recycled materials and Table 4.5, project EIS page 65 typical RDF constituents includes paper and plastics).

There is no reason for this waste burning proposal to be state significant. This designation avoids review processes. Burning rubbish should not be a state significant proposal, it is primarily a waste disposal proposal, not an energy production proposal. The NSW Government is using the state significant decision-making (SSD) pathway for energy production like the repealed Part 3A approvals pathway – in this case to facilitate inappropriate waste disposal. It is being used to block more thorough review and appropriate appeal processes that should be available for such a controversial proposal in Sydney’s water supply catchment.

The highest calorific waste products, plastic and paper, should be recycled, not burnt. The establishment of waste incineration technologies will result in a reduction in recycling and increased hydrocarbon production as plastic bags are burnt, instead of being recycled or not produced at all. The packaging industry will be delighted with this proposal – it will increase packaging resource throughput at the expense of recycling and waste minimisation programs.

Recycling superior to waste to energy technology

The National Waste Policy agreed by Australian environment ministers in 2009 required by this year, 2020, that a waste management and resource recovery program would be operational. In 2014 the EPA published the NSW Waste Avoidance and Resource Recovery Strategy. If this strategy had been followed there would be no need for the proposed Mt Piper Waste to Energy Facility.

The focus of the National Waste Avoidance and Resource Recovery Strategy within NSW is recycling. 'Recycling keeps materials in the productive economy and benefits the environment by decreasing the need for new materials and waste resources' (Environment Protection Authority, 2014).

This proposal implies the acceptance of burning, instead of avoiding or reusing plastic materials. The proposed facility if established, will affect community attitudes towards waste in the future. If recycling and avoidance were focused on, as opposed to waste to energy technology, there would be more community pressure, particularly on the packaging industry, to produce less plastic waste and recycle what is produced.

Recycling sits third in the NSW EPA waste hierarchy, following waste avoidance and reduction, and then reuse of waste. Disposal of waste sits at the bottom of the hierarchy. While waste to energy is considered superior to disposal, it is inferior to recycling.

Burning waste erodes superior waste management alternatives and could encourage the packaging industry to produce high calorific value plastic waste. More waste, not less, so it's not a 'green' industry.

There are a number growing uses for recycled plastic – outdoor furniture, reserve infrastructure and in asphalt. Plastic timber for furniture and infrastructure can be drilled, nailed, glued, and handled the same way as wood, although like wood it does burn and will melt, as so it should be used with these limitations in mind (e.g. it is not to be used on aboriginal heritage sites). The Sutherland Shire and the Northern Beaches Council have reused recycled plastic in asphalt. Christina Chin, Principal Consultant for AustRoads recently "found that some waste plastics can be a partial aggregate replacement in bituminous mixes and a binder extender without significantly influencing asphalt properties".

The Boomerang Alliance, which includes Sea Shepherd, Total Environment Centre and the Australian Conservation Foundation, believes that mixed waste incineration undermines community recycling efforts, and is incompatible with circular economy principles to:

- minimise resource consumption;
- decouple economic growth from resource consumption;
- design out waste and pollution; and
- keep products and materials in use.

The New Plastics Economy Pact – a vision for a circular economy for plastics developed by the Ellen MacArthur Foundation – is endorsed by over 400 major corporations including Nestlé, Pepsico, Unilever, Coca-Cola, global plastic packaging producers such as Amcor, APHLA Group, and Berry Corp, and global retailers including Walmart, Schwartz and Target. The Pact states that all plastic packaging should be reusable, compostable and recyclable by 2025. All Australian jurisdictions have endorsed this position. Landfill or incineration, and waste-to-energy projects (with respect to plastics incineration) are not part of this circular economy Pact.

Businesses producing or selling packaging have acknowledged a social responsibility that includes contributing towards it being collected and reused, recycled or composted in practice. If recycling and avoidance were focused on, as opposed to the waste-to-energy technology, there would be more community pressure on the packaging industry to produce less plastic waste, and to reuse what is produced.

Despite the New Plastics Pact, it appears that industry would rather burn resources than recycle and reuse them. Millions of tonnes of waste that were sent for recycling in China, Malaysia and India are now accumulating in huge stockpiles around Australia. As the *Herald* reported, Australia isn't recycling, we're collecting. Waste-to-energy incinerators reduce these vast volumes of collected resources to ash, which is then buried. Australia seems to be losing its way.

In 2002, the recycling industry supported 22,000 full-time jobs. Waste-to-Energy technology will see employment in the recycling sector decline.

Under a waste to energy strategy, the Waste Less, Recycle More initiative as supported by the NSW EPA, will be replaced by a waste more, burn more strategy, which will damage the recycling economy, stifle resource sustainability initiatives, and cost recycling and reuse industry jobs.

Established in 2013 under a four-year grant program, the Waste Less, Recycle More initiative was to modernise waste disposal and deliver better recycling services in the community. It was recently extended for another four years from 2017-21. The waste to energy plant at Mt Piper will be hostile to this program.

Recommendations for waste management without Waste to Energy:

Use of natural resources must:

- Achieve the inverted pyramid of the EPA Waste Hierarchy;
- Convey the importance of recycling as beneficial for the environment, reducing the risk of pollution; and
- Educate the community about the benefits of the current disposal and recycling system.

Waste to energy technology reduces the amount of waste buried in landfill, but incineration doesn't cause waste to disappear, it just converts it into several different forms. The incineration process produces toxic ash and dangerous gas emissions (e.g. dioxin) that have health risks. Ash from burning waste must be disposed of as intractable waste, in this case in a lined cell. The proposed emplacement is poorly sized (too small) and located on hollow ground, on a site underlaid by shallow bord and pillar coal mine workings. Such ground is more likely to connect the emplacement area with groundwater, as has already happened at another ash emplacement site at Mt Piper which has high salinity groundwater/runoff (7,000 EC). Location of the proposed plant next to Mt Piper Power Plant poses an unacceptable risk to the Cocks River catchment and its use as a source of raw source of drinking water for Sydney.

The Colong Foundation believes that the ash will be about a quarter of the original waste by weight, that is, a larger volume than described in the proposal. The low volumes provided in the EIS are perhaps a tenth of the actual volumes required for waste emplacement (tables 3.2 and 3.3, pp 35 and 36). While there is a reduction in size and weight with incineration, the type of disposal (lined repository) is costly and is significantly understated in the EIS, as are the environmental hazards.

Fly ash from the proposed plant will be contaminated with toxic heavy metals and persistent organic pollutants, as mentioned above, and be hazardous to workers and the environment.

Appropriate disposal of incinerator residues (ash and fly ash) may become problematic due to the large volumes and toxicity of the material. The higher air emissions standards of this proposed plant, and the on-site capture of contaminants, will lead to increased toxicity levels of the incinerator ash sent to landfill. Lining of disposal cells may become compromised due to the hollow nature of the shallow underground coal mines in the landscape, leading to contamination of groundwater. Ultimately the Cocks River catchment and Sydney's drinking water supplies will be polluted by this proposal.

Additionally, under no circumstances must the proposed ash be used in the production of cement.

Toxic "fuel" sources

Information in the EIS about the fuel waste that would be burnt, reveals its sources are highly variable, and include electronic and electrical items (RDF constituents, p. 64 of EIS). Materials listed in Table 4-5 (p. 65) includes categories labelled "other", which may likely include PVCs, although these plastics are supposed to be removed for the waste stream. Both "other" and "electronics" could be a significant contaminant of the "fuel" (i.e. from poorly sorted rubbish derived from a community that will become less interested in and knowledgeable about recycling).

Air emissions include highly toxic and carcinogenic persistent organic pollutants such as dioxins and furans (PCDD and PCDF), hexachlorobenzene (HCB), PCBs and brominated persistent organic pollutants. They also include nanoparticles of toxic heavy metals such as lead, mercury and arsenic, and acid gases that have serious impacts on human health. These acids also attack the stack gas filtration units, reducing the reliability and effectiveness of air pollution treatment.

Australia is a signatory to the Stockholm Convention which specifies Persistent Organic Pollutants which should be avoided or have their production terminated. It is well established that highly toxic compounds such as dioxins, furans and toxic metals are by-products of the incineration process. Dioxins and furans are particularly detrimental, being associated with immune and enzyme disorders, such as chloracne, an acne-like eruption of blackheads, cysts, and pustules symptomatic with over-exposure to these substances. They are also carcinogenic in humans (Stockholm Convention, 2008), and closely linked to death and stillbirth in laboratory animals.

The Colong Foundation believes persistent organic pollutants from the proposed facility will contaminate and remain in the airshed, and in some climatic circumstances drift east, to reside in the Sydney Basin. The contaminants will also be washed into Sydney's water supply catchment and build up over an extended period.

Approval of this facility will breach the Stockholm Convention's intent to eliminate dioxins and furans from the environment. At greatest risk will be staff operating the plant, Lithgow residents, and those who eat contaminated fish from the Cocks River, not to mention local wildlife.

The list of waste fuels eligible in the New South Wales energy-from-waste policy statement includes scrap tyres – it is unclear whether tyres are permitted to be burnt in this proposed facility. Tyres are permitted to be burnt in cement kilns, but can emit benzenes, PCBs, dioxins and furans as well as

arsenic. Depending on the extent of exposure, these emissions can cause eye, skin and mucous-membrane irritation, central nervous system depression and cancer (Reisman, 1997).

Rail, not road transport

The proposed waste incinerator will be fed rubbish by a fleet of between 26 and 33 large, noisy and smelly trucks. The use of 19 metre, 50 tonne B-double trucks is proposed (p. 187 of EIS) and even though they would be sealed, they would be smelly, as all rubbish trucks are.

As B-doubles are currently banned from using Mt Victoria Pass, the scenario of around fifty 22 tonne-trucks is not really a worst-case scenario, but probable, as smaller trucks must be used. The maximum waste volume of 250,000 tonnes is also the most likely scenario, as it is the most profitable.

Up to 96 truck movements a day, with peaks in the early morning (dawn) and at the end of the school day, ensures maximum disruption to Lithgow and Blue Mountains local traffic. Nobody likes extra rubbish trucks moving through their neighbourhood, certainly not Blue Mountains residents.

The proposed waste incinerator is on a railway line, and despite the current haulage of Sydney's organic waste by rail to Woodlawn near Canberra, this proposal seeks waste transport by road haulage only. This is a missed opportunity that carries a significant greenhouse pollution cost (allegedly 11,000 tonnes CO₂-e/annum, according to the EIS that understates the trucks used, as B doubles are banned). The EIS analysis states that the nearest waste unloading facility is at Bathurst.

The proposal must surely be required to include a rail-based unloading facility at the Mt Piper site? The Secretary's Environmental Assessment Requirements (SEARs) may have omitted to specify this unloaded in its requirements for consideration of a rail option. This defect seems to be more the proponents' interpretation of its directions, rather than the Department's SEARs. Clearly the proponents do not wish the expense of a rail unloading facility.

In any case, both the Great Western Highway and the Bells Line of Road are poor road freight routes. Both roads will remain difficult for trucks to negotiate given the grades and other impediments, such as school zones and varying speed limits. The B-double truck ban from using the Great Western Highway over the Blue Mountains must remain in place to prevent excessive impacts on Blue Mountain communities.

The Department of Planning, Industry and Environment must require the proponents to adequately consider rail haulage of all its rubbish from Sydney. The Colong Foundation cannot accept this proposal, even if it is by rail, given the significant pollution threats to Lithgow's, the Blue Mountains and Sydney's air and water.

Not green energy

Waste burning facilities produce far more carbon dioxide per unit of energy generated than coal, oil or gas fired power stations, in addition to destroying resources that should be reused, such as plastics and paper. The USEPA have undertaken comparative studies of modern Municipal Solid Waste incinerators and other forms of electricity generation which revealed that incinerators are the

dirtyest electricity production option releasing more CO₂ than coal fired power stations per unit of energy generated. In other studies, UK researchers have demonstrated that incineration of waste emits up to twice the amount of CO₂ of coal-fired power plants per kilowatt-hour of electricity. Further, the U.S. Energy Information Administration found that the costs of building WTE incinerators are 60% higher than nuclear power, and the operating costs are ten times higher than coal.

This proposal seeks to obtain public subsidies and tax breaks that should be spent on assisting real green energy projects, such as wind, wave and solar power. The incinerator industry claims to be renewable and a green form of energy generation, that can reduce landfill methane emissions. The proponents claim that a third of the feedstock to be burnt will be municipal waste, a significant portion of which is necessarily organic in origin.

The EIS claims that burning of the municipal component will produce 80,000 MWh/yr of renewable energy. By reframing the project away from being waste disposal facility to become 'green energy' generation combatting climate change, the proponents are lobbying for greater incorporation of incineration into government waste and energy policies. This sly rebranding is to attract investment from sources seeking more sustainable waste management practices, when the toxic actualities of the project could not be more different.

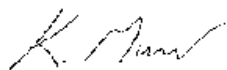
The Colong Foundation believes that the emplacement of what we estimate to be about two million tonnes of hazardous waste ash over 25 years in Sydney's water catchment cannot be morally justified. It will simply create a toxic legacy issue for future generations to have to deal with. Current waste emplacement for Mt Piper Power Plant is causing major pollution problems, and there is no guarantee that this proposed ash emplacement will be any more secure.

Australia's natural resources need to be conserved through reuse, recycling and composting schemes, not burnt and destroyed.

The proposal entrenches a wasteful society and is the wrong direction if our society is to adapt and thrive in the 21st century. This proposal must be rejected, and its renewable energy subsidy for incineration revoked.

Thank you for the opportunity to review and comment on this unacceptable proposal.

Yours sincerely,



Keith Muir
Director
The Colong Foundation for Wilderness Ltd

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generation which revealed that incinerators are the dirtiest electricity production option releasing more CO₂ than coal fired power stations per unit of energy generated.)

²Hogg, D., (2006) "A Changing Climate for Energy from Waste?" Eunomia Research and Consulting. May 2006.p 21. (UK researchers have demonstrated that incineration of waste emits up to twice the amount of CO₂ of coal-fired power plants per kilowatt-hour of electricity.)

³NSW Environment Protection Authority, January 2015, NSW Energy from Waste Policy Statement, Table 1 (Source-separated recyclables from MSW, up to 10% by weight of the waste stream received at a processing facility – and - Mixed municipal waste (MSW), no limit by weight).

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