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Clean Coal - Redentbach

## QUIT COAL PRESENTATION TO THE SENATE COMMITTEE ON THE IMPACTS ON HEALTH OF AIR QUALITY IN AUSTRALIA

15<sup>th</sup> March 2013

Dear Committee Members,

Thank you for holding this inquiry and for inviting Quit Coal to present.

Our submission relates to air quality impacts of coal mining, use and exports, the resultant impacts on public health and inadequacy of current processes for community involvement in these issues. While many regulation occurs at a state level, standards are set federally and therefore the Federal Govt should ensure their enforcement.

### About Quit Coal

Quit Coal is an independently formed, volunteer-based community group based in Melbourne, Victoria and a member of Friends of the Earth, Australia.

Our volunteers come from all walks of life and are united by a concern about the impacts of coal and coal seam gas mining on farmland, water, health, communities and the climate change. We use a wide variety of public engagement and advocacy techniques with the aim of creating rapid and meaningful positive change on these issues.

We particularly welcome the opportunity to participate in the Senate Committee process and thank the Senate for establishing a committee to examine this important public health issues.

In my opening remarks I would like to draw your attention to key information and recommendations we have made in relation to each criteria specified in the terms of reference for the committee.

### **In relation to PART A: The impacts on health of air quality in Australia: particulate matter, its sources and effects;**

Other submissions and witnesses have already described the number of significant air pollutants released by mining, transporting and burning coal.

These include particulate matter of size PM2.5 and PM10, sulphur dioxide, oxides of nitrogen, volatile pollutants and secondary pollutants such as ozone.

We would particularly like to draw your attention to the issue of air pollution with PM2.5 particulate matter.

We note from the transcript of the sessions held in Newcastle that a range of known health impacts of PM2.5 have been brought to the attention of the committee.

In summary some of these effects are:

**Immediate impacts** on serious heart and lung problems including irregular heart beat, heart attack, asthma, chronic lung disease and other lung symptoms such and cough and wheezing.

**Long term effects of exposure** include worsening of heart disease (including ischaemic heart disease which includes heart attacks), chronic lung disease and deaths from lung cancer.

**In children**, particulate matter is linked to **impaired lung development**, an increased rate of **respiratory deaths** in infants and can trigger **childhood asthma attacks** which may be life threatening.

These health impacts of particulate matter are well established in a wide body of international literature accumulated over decades.<sup>4,5,6</sup>

Electricity generation (primarily coal-fired) and coal mining are the two largest sources of particulate matter of size 2.5 micron or less (PM2.5) in Australia.<sup>1</sup>

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Four of Australia's six largest single emitting facilities of PM2.5 are **Loy Yang Power , Yallourn Power, Loy Yang B and Hazelwood power stations in Victoria's Latrobe Valley**. Eight of the nations top ten emitters of PM2.5 are power stations.<sup>2</sup>

Coal mining is the largest source of particulate matter of size 10 micron or less (PM10) in Australia, with coal combustion for energy generation the 6<sup>th</sup> greatest source.<sup>3</sup>

## **PART B: The impacts on health of air quality in Australia: populations most at risk and the causes that put those populations at risk;**

These serious health risks are expected to impact communities currently living around coal facilities around Australia. However, despite a long history of both coal mining and concerns over it's health impacts there have been a lack of comprehensive health studies.<sup>3</sup>

Within those populations exposed to poor air quality related to coal, those at **highest risk are the elderly, children and those with pre-existing medical conditions including heart conditions, lung conditions, high blood pressure and diabetes.**<sup>2</sup>

**Most of the communities affected by coal mining and combustion in Victoria are rural and regional areas, with a larger proportion of families and individuals of lower socio economic status compared to more wealthy urban areas.**

**Note particularly that some areas of the Latrobe Valley are particularly disadvantaged following enormous job losses associated with the privatisation of the electricity sector.**

**Personally aware having having worked in forensic medicine/child protection area covering those communities.**

These groups are likely to suffer more of the diseases which can be worsened by exposure to poor air quality but are also under greater socio-economic pressure to accept mines into their communities. There is a perception that their health is not taken as seriously as that of people in more affluent and urban areas.

**Community members in these areas report experiencing health problems that they strongly believe are related to coal mines and/or combustion.**

I'd like to tender this document – a very typical account from Dan Caffrey who lives Traralgon, Victoria, which is between Yallourn Power Station and Hazelwood PS, and read out one paragraph if I may:

*Before we moved here in 1998, we lived on the north coast of Tasmania, probably experiencing some of the cleanest air in Australia. Within 5 months of our family settling in Traralgon, my eight year old son developed severe breathing problems over a number of weeks. This was subsequently diagnosed as asthma and he became a regular user of a Ventolin puffer. The condition was noticeably worse in winter time and affected his sport, especially football. As we live downwind (north east) of Hazelwood power station and to the west of Yallourn power station with predominantly westerly winds, it is obvious that this city of Traralgon is in the drop zone for much of the particulate matter that exits the stacks of these very old and polluting power stations.*

*Now an adult and living in northern Victoria after spending a year in Melbourne, my son has not*

*had any more episodes of air-way constriction. When a teenager he had serious asthma issues, when living at home in Traralgon, which he seemed to not have whenever we went away for holidays to other parts of the state or interstate.*

These communities are particularly concerned about the health impacts on their children.

Examples that have been raised with Quit Coal are:

- **Anglesea Primary School** is located only 800m from the edge of Anglesea coal mine, which is also adjacent to the 150 MW Anglesea Coal Fired Power Station. The Primary School is approximately 1.4 km from the smokestack of the power station.
- Yallourn North Primary School is located approximately 2.6 km from the Yallourn Power Station. **Yallourn Power Station is the second largest single source of PM2.5 in Australia.**

**\*read from a statement prepared by Jacinta Morahan, who is herself a doctor, and lives at Anglesea Victoria.\***

*In Anglesea we are especially at risk due to our very close proximity and the very high amounts of SO<sub>2</sub> emitted by the power station each day. The more I have found out, the more worried I have become.*

*Together with [my partner] Chris I have seen 3 children through their most vulnerable early years and, as most parents do, continue to raise them with the greatest of care for their health.*

*... That my children continue to be exposed to harmful pollutants which may have long term adverse health effects keeps me awake in the small hours of the morning. I have thought long and hard about leaving. However, despite Alcoa, Anglesea and the Surf Coast is a community we feel very much a part of and do not wish to leave...*

*While we have not left Anglesea we have however been unable to continue to send our children to the local primary school. In 2010, a new primary school was built on the edge of town on land previously owned by Alcoa (in a 'buffer' zone between power station and township). The school is 1km from both the mine and power station.*

*Due our concerns for our children's health we could not send them to the local school and so Mina had to leave and her little heart was also broken for a while. While my children might be partially better off by getting out of Anglesea during school days, they are still at risk as are the children who attend Anglesea's school, kinder and occasional care. I still lie awake worried and wondering if I should leave to protect them.*

## **RECOMMENDATIONS**

- 1) Given the overwhelming evidence about the harms of air pollution associated with mining, transport and combustion of coal, **Australia's energy, minerals and trade policies should give the highest priority to rapid deployment of renewable energy generation technologies such as wind, solar photovoltaic and solar thermal technologies that produce electricity without the serious health harms associated with coal mining and combustion.**

**Note** that renewable energy projects which provide more jobs per unit of electricity and are also a vital part of Australia's transition to a low carbon economy.

- 2) **Government, working together with local communities and industry, should undertake comprehensive regional development plans for communities currently affected by coal infrastructure** to develop sustainable industries that without the attendant air quality and health impacts of coal.
- 3) Australia should also consider the health impacts of air pollution in countries to which we ship coal and that people in those countries have the same right to clean and safe air to breathe as do people in Australia.

## **PART C: The impacts on health of air quality in Australia: the standards, monitoring and regulation of air quality at all levels of government**

Inadequate monitoring, reporting and enforcement of air pollution standards is a common story across communities.

While communities feel their well being is suffering and they feel both abandonment and disillusion that there are neither adequate measures to protect them, nor avenues for appeal.

We submit that the National Environment Protection measure AAQ is inadequate because it is primarily aimed at population level monitoring for general background levels of Air Quality and specifically exclude monitoring of populations at risk as a result of polluting industry.

For example, in the Latrobe Valley, monitoring of air quality is undertaken by the EPA Victoria in Traralgon, Victoria, which is approximately 15km from Yallourn North Power station, 7 km from Loy Yang Powerstation and 15 km from Hazelwood and Energy Brix Power Stations in Morwell.

Information about their levels of exposure is therefore not available for residents of Morwell, Yallourn, Moe and other nearby townships.

These at risk communities could be provided with access to real-time data on particulate levels as in the Upper Hunter region, to allow people take protective action when pollution levels are high.

### **Recommendations:**

- 1) National enforceable rather than advisory standard for PM2.5, which should be a criteria pollutant.
- 2) Strengthen the NEPM AAQ measure to apply to all sites.
- 3) **Increased requirements for monitoring and reporting criteria air pollutants at residential, educational and occupational buildings sited closest to coal mining, transport and combustion facilities.**
- 4) Development of federal mechanisms to ensure states meet air pollution standards: – for example, by reducing funding to states for infrastructure that further contributes to air pollution, such as roads, if air quality standards are not met.
- 5) **Requirement that AQM Monitoring data** should be immediately available via the internet.
- 6) **Provision of alerts systems for breaches of air quality standards.**

## **PART D: The impacts on health of air quality in Australia: any other related matters.**

Communities where coal developments are proposed are also concerned about impacts on their AQ, feel they do not have recourse to take action.

At Bacchus Marsh, near Melbourne, is a market garden area and growth area of young families. Residents are concerned about the impact of coal dust and other diminution of air quality associated with a

proposed brown coal mine in their area.

Proponents of the project and Governmental bodies, eg, the Department of Primary Industry, often state it is too early to address these issues as it is not known whether the development will proceed.

However, from the time the exploration occurs there can be:

- **decrease in property values**
- **-individual and family emotional stress** associated with uncertainty about the future financial, health and amenity impact of the possible development.
- **negative impacts on the fabric of the community**

We submit that communities should be assured from the commencement of a project that conditions adequate to safeguard their health and community will apply.

\*\* Kate Tubbs/Natasha's story?

In relation to communities near existing coal developments, we note that pollution control measures on coal infrastructure have often not kept pace with "industry best practice standards".

Communities need clear avenues for communities to appeal for improved air quality where current coal infrastructure exists and the community believes that monitoring, enforcement or regulatory standards for air quality are inadequate.

In the absence of clear, demonstrable harm to a single individual or individuals, there is no apparent legal recourse for the community to seek greater protection.

""?Despite EPA license conditions specifying industry BP -

### **Recommendations:**

- 1) The approval processes for coal facilities should ensure that community concerns about air quality and health are heard and responded to at early stages of the approvals process.
- 2) In areas where communities are given the right to veto other developments, such as wind turbine, communities should have equal or greater veto rights against coal developments and other sources of air pollution.
- 3) Clear avenues to appeal against decisions about coal infrastructure on health grounds and that these are easily available to communities.
- 4) A Health Impact Assessment process should apply to all approvals for new coal mines, power station and coal handling facilities and extensions to existing projects.
- 5) Where existing coal or major sources of AP exist – there should be baseline monitoring of all criteria pollutants and include PM10 and PM2.5 monitoring.
- 6) **Coal mining and burning facilities in Australia should be required to install world's best practice health and environmental standards including installation of best practice technology for reducing particulates, sulphur dioxide and oxides of nitrogen. Clear avenues to ensure that states enforce compliance with world's best practice standards should exist and be evident to communities living with coal facilities.**
- 7) Clear avenues for appeal should exist where communities have reasonable grounds to believe that diminished air quality associated with coal developments is harming their health.

Dear Dr Redenbach,

I am aware you are presenting to the Senate Inquiry on Air Quality. I would be grateful if you could pass on my concerns to this Inquiry.

Following a career in the Public/Private sector and a trade I purchased a small scale farm in Bacchus Marsh which I have been managing on Organic/Biodynamic principles with the hope of certification in the future. The organic produce industry is fast growing with a large consumer support base. When purchasing my property to undertake this venture I did a large amount of research, consulted council and other government bodies to ensure my investment was sound and that where I was purchasing would be sustainable for agriculture in the long term. I planned to focus on dry land tree crops, sell the fruit and produce my own food from the property.

I became aware of a coal exploration license in the area from a friend at the environment group. Firstly I could not believe that landholders had not been made aware of this before the exploration license was granted and that the legislation does not require the miners to notify landholders directly when they make an application conduct works or when they apply for an exploration license, so that the landholder might object. It was devastating to discover that we had no rights to refuse exploration as the legislation allows the miners to force your hand through legal action and come on anyway.

I put the certification of my property on hold while I did more research, spoke to legal people, medical experts, government departments etc. The news just got worse with every call.

Airborne contaminates from coal mining alarm me. I could not find any government funded or independent research, yet common sense and my own observations in farming tells me that coal dust cannot be good for us to breathe. My health is critical to me contributing to the community and economy, and as such I am cautious with what I eat, drink and breathe.

Contaminated air in our environment ensures contaminated tank water supplies which we drink and use to grow our food, contaminated stock water supplies in our dams, contaminated soil which we grow in, and contaminated human bodies which we rely on to work and contribute to the Australian economy. Clean air, water and soil should be our basic rights.

The entire process to date has shown me that my concerns are not being heard or considered. Every government agency I speak to tells me it is someone else's responsibility. For example the Environment Protection Authority (EPA) tell me that the Department of Primary Industries (DPI) will make the call and the EPA only become involved if there is a problem later. When I asked both the DPI and EPA representatives about dust monitoring I was informed that it is expensive and that DPI and EPA will make the company set up dust monitors and pay for them. It was a company and self regulation that allowed asbestos to be an issue for which members of the public now suffer the ill-effects and the cleanup costs. Learn from previous mistakes!

If the new coal mining was to go ahead in Bacchus Marsh I have no doubt my quality of life would decrease, my livelihood destroyed, my health destroyed. It is absurd that, as an individual, I would have to prove that the mine did all this. If I make a complaint I would have to use all my funds to find the evidence to prove it before the company would even have to look at the issue. Even then, with the resources they have available to them, they would just dispute it.

My experience for mining/exploration companies is that they can do what they want, bully you and when you raise this with government departments they say "did you tape that", "did you have a witness?". They can put your community at risk and when you report it the government department just sends back a letter saying they plan to take no action. We have reported damage to native vegetation, again reported with evidence and government department just told the company not to do that anymore. On another occasion fail to abide by written work plans was reported and still the company was allowed to proceed.

The EPA and the DPI representatives advised me that the way the industry works is that they respond to complaints from the public. This means that the system makes it the responsibility of the public to monitor the requirements of the industry. However you normally cannot get a copy of the requirements, and most certainly you cannot get a copy without paying.

I have recently reported a breach regarding potentially toxic dust blowing onto my property from a new storage site for HiCal40 (a toxic residue from smelting of aluminium at Point Henry aluminium smelter) to the relevant government agencies, and provided evidence of the breach. I was interrogated by the government representative, only to be told by the government agency that they need to see the breach themselves in progress before they can take action against the company. Then they rang the company and organised a visit on which they found no breach: of course not - they told them they were coming. I then ask the department what contaminants may have come on to my land as a result of the breach, to be told I will need to apply under FOI for that information it will take 45 days to get it, if it is released at all, it may be considered a trade secret. Yet either way I would have to record it on a organic certification log and make sure produce (which is now ripe on the tree) goes out clean to the public.

This is how it is working in the field. Sounds insane, and that's how it makes you feel when you try to navigate it.

Deb Porter 15/5/2013