

Mr Chai Chuah, Director-General of Health
Dr Stewart Jessamine, acting director of Public Health
Ministry of Health, Wellington

9 September 2016

Dear Mr Chai Chuah and Dr Stewart Jessamine

Decision re coal or wood fired boiler at Christchurch hospital

Coal Action Network Aotearoa is a nation-wide group of citizens who work for an orderly phase out of coal because of its major contribution to climate change. In particular, we aim to inform people about the choices available when considering a major coal-fired plant.

We have taken the step of writing to you both because we understand that the Ministry, rather than CDHB, will make the decision on the fuel to be used in the boilers of the rebuilt Christchurch hospital, and that this decision is very close.

We believe that this is not just an engineering decision. There are strong health related, financial and reputational reasons to choose a boiler fueled by waste wood rather than coal that deserve the attention of senior management. The Ministry has the opportunity to provide leadership in NZ's efforts to address climate change, setting an example to many other businesses and public agencies who control heat plants.

Climate change

You will be aware that climate change is recognised by many international health bodies, including the WHO, as among the greatest – some have said the greatest – health risks of the twenty-first century. Numerous reports cite heat stroke, storm events, rising sea levels and flooding, displaced populations, new pests and diseases, fresh water and food shortages, as among its effects and in some parts of the world these are occurring now.

Speaking at a side event at the Conference of the Parties to the Framework Convention on Climate Change last December, Dr Margaret Chan, D-G of the WHO, said “Climate change is the defining issue for the twenty-first century.The world is recklessly late in taking action.”

Our Government has signed the Paris Accord committing to trying to keep warming below 1.5 degrees. It is thus incumbent on all Government agencies to contribute to achieving this goal. NZ's target is modest compared with others, but there is no hope of achieving it without a steady reduction in coal use.

Coal is the most carbon intensive of the fossil fuels and one of the first and easiest actions to take is to start replacing it with renewable energy. There is no technology to reduce the carbon dioxide emissions from burning coal; these are determined by the amount of coal entering the boiler. Ironically it is also the easiest fossil fuel to phase out as there are good alternatives in most cases. For a relatively small heat plant such as at a hospital, whenever a new or refurbished boiler is needed there is an opportunity to install a purpose-built wood boiler which can have lower emissions, at least equal reliability, less and non-toxic ash disposal and is climate-neutral.

The hospital has a commendable transport plan that favours ride-sharing and active transport such as cycling. It is providing community leadership here. However the emissions this plan will save, while worth having, are trivial compared with the emissions a coal fired boiler would produce. Consistency demands attention to the largest source of emissions as well.

Air Pollution

You will be aware of the many reports (eg Physicians for Social Responsibility, 2009, *Coal's Assault on Human Health*) showing that coal combustion contributes to heart disease, cancer, stroke and chronic respiratory disease. It is therefore particularly important that sites within cities do not burn coal.

Christchurch's air pollution already reaches worrying levels, and its well-known temperature inversion exacerbates this. Replacing the coal of the past with waste wood which does not produce sulphur or heavy metal emissions is a chance to contribute to better air quality in Christchurch. A number of other hospitals have recognised the risks of coal – for example Burwood, where two state-of-the-art new wood burners are being installed, has been widely praised. This is consistent with the Ottawa charter's "health in all policies" commitment. It seems strange for two hospitals in Christchurch to take such different approaches.

Cost

It is true that coal is artificially cheap because it does not have to pay for its health and environmental effects. The carbon price set by the ETS is so low it effectively makes no difference. However a true cost analysis from the perspective of a health authority is likely to come to a different conclusion. Over time, investing in reducing the triggers to heart, pulmonary and circulatory disease will reduce health costs and we do not believe the public or progressive economists will accept a cost-benefit analysis for the physical plant that does not include this.

In addition, the impetus that the Paris climate talks have given to climate action, and the fact that NZ is about to ratify this agreement, suggest to us that much higher carbon prices are not far away. Within the first few years of this plant's long life, we believe it will be costing the health budget tens of dollars per tonne of carbon.

The capital cost of a quality wood fired plant is higher than for coal, or for a low quality wood plant. However we are advised that a high quality plant can burn very low quality wood, including wet wood, very cleanly and that the much greater abundance and lower cost of this fuel typically pays for the higher capital cost in around three years.

We understand that some \$16M would be spent just in moving the previous coal fired boilers on to the site, before building the new housing. We also understand the upfront cost of a quality wood burner would not be greatly more.

Technical and logistical issues

Wood fired boilers of much greater size are common in the EU which has less available wood than NZ. The technology is mature and reliable. New Zealand is blessed with an abundant supply of waste wood from the forestry industry and other sources, including in the Canterbury area.

Reputational issues

We believe it is important to maintain public confidence and trust in our public health authorities. With the rising awareness of climate change and the urgency of action, we believe this trust could be undermined by a Ministry decision to put public health at risk by burning coal at this point in history. For a hospital to be treating people with diseases to which it has itself contributed seems a terrible irony.

Thank you for the opportunity to make these points. If there is anything you would like to discuss further we would welcome the chance to meet or to continue emailing.

Yours sincerely



Tim Jones, pp Cindy Baxter, Jenny Campbell, Jeanette Fitzsimons, Zella Downing, Tim Jones, Harvey Molloy, Rosemary Penwarden, Briary Zachernuk
for Coal Action Network Aotearoa