LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry: Inquiry into the Health Impacts of Air Pollution in Victoria

Hearing Date: 29 June 2021

Question[s] taken on notice

Directed to: Bronya Lipski, Environmental Justice Australia

1. Dr Ratnam Page no. 11

Question asked.

Are there things that we should be asking for in the immediate future to assess whether the EPA is actually utilising the stronger laws that we have legislated for them?

Also as noted by yourself on page 11:

That question of cost effectiveness is usually in my experience imposed on community rather than the industries that can actually mitigate their activities to prevent those adverse health outcomes.

Response:

Regarding requests the Committee can make in the immediate future to assess whether the EPA is utilising strong laws under the Environment Protection Act 2017:

The general environmental duty (**GED**) in the amended Environment Protection Act 2017 (Vic) provides:

> *A person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable* (section 25(1)).

It is an offence to contravene section 25(1) in the course of conducting a business or an undertaking. Section 25 provides further guidance to industry and business on activities it can take, so far as reasonably practicable, to minimise risk of harm to human health and the environment.

Two significant factors are at play in the GED: the boundaries or scope of what is 'reasonably practicable', and the state of knowledge concerned a specific risk to human health and the environment.

What is 'reasonably practicable' involves an assessment of factors outlined in section 6 of the Act, including the likelihood of the risks occurring, the degree of harm that would result if the risk eventuated, what a person knows or ought reasonably to know about the harm or risk of harm and

how to eliminate or reduce those risks, availability and suitability of ways to eliminate or reduce those risks, and cost of eliminating or reducing those risks.

The 'state of knowledge' concerns what a person knows or ought reasonably to know about the risk of harm and how to eliminate or reduce those risks. Matters that contribute to this knowledge include understanding of health risks, past performance, industry best practice, current and former EPA guidelines on licence compliance, etc.

So key to answering this question is having an understanding of what the state of knowledge is and how that informs the 'reasonable practicability' of mitigating the risk. The EPA has released several guidance papers on this, available on their website, which goes some way to helping the community understand what actions EPA may require polluters to take.

Part of the problem though is operator/industry self-assessment of what is reasonably practicable to achieve and what EPA will accept as sufficient to satisfy the GED. Using coal-fired power stations as an example: we know that burning coal emits millions of kilograms of toxic air pollution and that air pollution is very harmful to human health. We know that best practice controls are available to the power stations to minimise that pollution and that these controls have not just been available for decades but have been retrofitted into other power stations throughout the world. We know what health-based stack emissions limits are. We know that sulfur and nitrogen gasses produced by burning coal form secondary fine particle pollution in the atmosphere. We know that fine particle pollution, including secondary fine particle pollution, causes some of the most serious and deadly health impacts in humans. We know that the Latrobe Valley, compared with the state average, has poorer health rates and higher cancer rates. We know that children in Latrobe Valley have statistically high rates of childhood asthma. And we know that AGL and Alinta intend to operate the Loy Yang A and Loy Yang B power stations until 2048 and 2049 respectively. So what is reasonably practicable in these circumstances to eliminate or reduce the risks to human health and the environment associated with the air pollution from power stations?

Things that can be asked for and/or used to determine whether the EPA is utilising its new legal framework include:

1. Does EPA intend to challenge an industry or facility claim that it cannot reduce its risk of harming human health or the environment because it is not cost effective for that industry or facility to mitigate that risk?
2. Will the EPA impose best-practise stack emissions limits on heavily polluting industries to require an elimination or significant reduction of risk of harm being caused?
3. Will EPA utilise its resources to further its own understanding about the state of knowledge of an industry or facility, including increasing its air monitoring network?
4. Will EPA help the community to further its understanding of the state of knowledge of an industry or facility, such as increasing access to monitoring data (actual data, not traffic light systems for compliance), pollution abatement notices, developments in technology and science regarding air pollution and the best way that it can be controlled?

Regarding cost effectiveness and who bears the economic burden of air pollution:

Cost effectiveness is treated as a balance between the financial burden on the community to take actions to care for their health (hospital admissions, medication, GP visits, etc.), and the financial burden on operators who cause air pollution to reduce sources of air pollution, such as at coal-burning power station stacks. This tension play out in the Regulatory Impact Statement[1] and accompanying Cost Benefit Analysis[2] during the review of national ambient air standards for sulfur dioxide, oxides of nitrogen and ozone.[3] Putting aside the problem we have in Australia in determining the actual cost of retrofitting best-practise pollution controls onto power station stacks (Victoria has not installed best-practice pollution controls in power stations making it difficult to determine what the actual cost is), it is assumed that the costs associated with installing those pollution controls to reduce those pollutants outweighs the financial burden of the care that communities must take to care for their health.

It is important to consider, however, the demographic of communities exposed to consistent air pollution. In Latrobe Valley, the demographic leans towards a lower socio-economic status with higher rates of unemployment, statistically lower health and wellbeing compared with the state average, and high rates of drug and alcohol dependency. The community, on average, is not in a flush financial position to begin with, and so any additional financial strain can be a significant burden. In places like Latrobe Valley, for some families, forking out $15 for Ventolin for a couple of children with chronic asthma every couple of weeks is an enormous financial strain. And there are other externalities at play that aren't accounted for: days of work lost, days of school lost, additional measures people take to reduce their exposure to air pollution and deal with health issues such as purchasing air purifiers and nebulisers.

The People's Clean Air Action Plan for Victoria, and other publications, outline the costs associated with the health impacts of air pollution. The cost associated with premature death attributed to air pollution in Australia is estimated to be AUD$24 billion annually.[4] The health cost attributed to air pollution from coal-burning power stations alone is some AUD$2.4 billion annually.[5] Schofield et al found that the health burden of mercury and lead in Latrobe Valley alone is estimated to AUD$52 million and AUD$28.8 million respectively.[6]

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[1] Available at: http://www.nepc.gov.au/system/files/consultations/8710bdfb-ed01-4df9-8697-bc75956991a1/files/aaq-nepm-draft-variation-impact-statement-o3-no2-so2.pdf.
[2] Available at: http://www.nepc.gov.au/system/files/consultations/8710bdfb-ed01-4df9-8697-bc75956991a1/files/aaq-nepm-impact-statement-appendix-c.pdf.
[3] See generally: http://www.nepc.gov.au/nepms/ambient-air-quality/proposed-variation/consultation-2019.
[4] See: See: Australian Institute of Health and Welfare (AIHW) (2016). Australian burden of disease study: impact and causes of illness and death in Australia 2011, AIHW, Canberra; Begg, S. (2007). The burden of disease and injury in Australia 2003, PHE 82, AIHW, Canberra; Access Economics (2008). The health of nations: the value of a statistical life, Australian Safety and Compensation Council, Australian Government Department of Education, Employment and Workplace Relations, Canberra.
[5] Johnson, Chris et al, 'Costs of Negative Health Outcomes Arising from Air Pollution from Coal-fired Power stations', Actuaries Institute of Australia Annual Hackathon, 19 August 2020.
[6] Schofield, Robyn et al, 'Atmospheric mercury in the Latrobe Valley, Australia: Case study June 2013' (2021) 9 *Elementa: Science of the Anthropocene* 1, 3.

It is well known that the externalities associated with heavy industry, be that electricity generation, shipping and transportation, or other industrial industry, are not factored into costs or subsumed by the companies. The costs of the health burden of these industries is born by the community. This puts Victoria at odds with jurisdictions such as the United States, whose *Clean Air Act* requires the federal Environment Protection Agency to set national air standards based entirely on protecting public health and welfare,[7] without consideration for cost to industry. The US approach to reducing air pollution places the benefit of a healthy life and the costs associated with poor health outcome well before the cost to industry.

The US approach to imposing costs onto operators rather than the community is by no means perfect, but it is literally decades ahead of Victoria. We urge the Committee to consider that cost effective approaches to mitigating the health impacts of air pollution are largely born by the Victorian community, and there is a significant role for industry and regulatory to play in apportioning the bulk of those costs in their activities by installing pollution control to significantly reduce their air pollution.

2. The Chair Page no. 11

Question asked.

Do you see that there could be scope for more localised involvement as well, in some of those projects, or should it be centralised?

Response:

Yes, there is certainly scope for cooperative arrangements between community, universities, regulators and researches – including health professionals – to develop air pollution mitigation strategies. The Victorian government has achieved some important reforms in the past by taking a co-design approach. These types of approaches facilitate community engagement and foster an inclusive problem solving and solution oriented environment.

The programs can build on pre-existing work, such as the excellent work of the Inner West Air Quality Reference Group. People who experience air pollution regulatory already have a range of localised and broader solutions at hand – they've been thinking and advocating for these solutions for decades. Ensuring that such people are brought to the table in developing solutions is fundamental to achieving a long term air pollution reduction program of work. It could involve citizen science programs, provided these resulted in solutions that aren't just focussed on the individual and communities and what they should be doing to reduce their exposure to air pollution.

The bulk of reducing people's exposure to air pollution must be achieved by the industries that cause it. Helping people to develop individual exposure reduction methods cannot be the solution to reducing air pollution. The COVID-19 pandemic has proved how cumbersome it can be to stay inside

[7] See: https://www.epa.gov/clean-air-act-overview/setting-emissions-standards-based-technology-performance.

and wear a face mask all the time, yet this is often the regulatory and health advice to people living with air pollution on g a daily or regular basis. The solution to reducing people's exposure to air pollution has to include imposing stricter operating obligations on industries to achieve the best ambient air quality as possible.