HEALTHY FUTURES

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1 November 2021
Portfolio Committee No. 7
New South Wales Legislative Council

Responses to Questions on Notice

Inquiry into the Protection of the Environment Operations Amendment (Clean Air) Bill 2021

Question 1:

The CHAIR: Thank you very much. Now we will move to questioning. I might just open with one question from me. This is to all of the witnesses. I am just wondering. Has there been any data collected from hospitals, maybe emergency wards, which also show other acute respiratory experiences that people have suffered and that may have been related or may be related to the same phenomena? Or is it mainly asthma, chronic asthma and bronchitis?

Mr MOYLAN: It is Jonathan Moylan here from Healthy Futures. NSW Health did put out a study on higher rates of presentations for a range of respiratory illnesses back in 2010, which I can provide on notice to this inquiry.

Response:

NSW Health put out a study in 2010 which indicates that regions in more polluted areas have higher rates of asthma, respiratory disease and cardiovascular disease compared with the state average.

https://www.health.nsw.gov.au/environment/Publications/HNE-respi-cardio-disease.pdf

However, the study does not offer much assistance to the inquiry as it does not break these down in relation to specific conditions such as respiratory tract infections, COPD, ischaemic heart disease or heart attacks that are known to be associated with air pollution. More recent research based on epidemiological studies and dispersion modelling has found that secondary PM2.5 from power station pollution is relatively evenly spread across the entire Greater Metropolitan Region, which incorporates the Illawarra, Sydney, Central Coast and Hunter regions.

Question 2:

Thank you. I just wanted to cover off one thing that we have not talked much about and that is to you, Mr Moylan, about the load-based licensing scheme. As a nation or as a State, is our regulation for imposing the costs of pollution on the polluters themselves also out of step with the rest of the world?

Response:

Load-based licensing is not as common as air pollution limits but is used in some parts of the world in order to abate emissions. Dr. Tiho Ancev and Regina Betz, environmental economists at the University of Sydney and UNSW, studied whether load-based licensing had any impact in NOx abatement after the scheme had been in operation for four years.

http://www.ceem.unsw.edu.au/sites/default/files/uploads/publications/ancevbetz-1.pdf

That study found that the fees were set far too low to drive abatement, noting in particular that the electricity industry, which is the largest source of NOx in NSW, did not respond significantly to changes in fees. The study also noted that NOx fees in Sweden are on average 200 times higher than in NSW.

Question 3: How much do you think that those load-based licensing fees would need to increase by in order to provide the economic incentive for these power stations to install the best available technology to filter the pollution?

Response: It is difficult to determine this question precisely as abatement technology varies by pollutant, and fees are weighted by zone (notwithstanding recent research that notes that PM2.5 from NOx and SO2 precursors from power stations are evenly spread across the entire Greater Metropolitan Region, even if the emissions of NOx and SO2 come from a zone with a low weighting).

However, Delta Electricity has commissioned a paper by Jacobs which estimates that the cost of installing selective catalytic reduction is 38 times higher than their load-based licensing fees.

https://hdp-au-prod-app-nswepa-yoursay-files.s3.ap-southeast-2.amazonaws.com/9416/3460/3625/2021.10.8_-_Delta_-_1_Additional_Information_-_Jacobs_Report_.pdf

The external cost of air pollution to the community is far higher. In a technical report supporting advising the EPA on the review of the load-based licensing scheme, ACIL

Allen found that the external benefits of selective catalytic reduction were nearly double the cost of selective catalytic reduction.

https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/licensing/lbl/load-based-licensing-acil-allen-fee-comparison.pdf?la=en&hash=6DE3947ADBEDC81723072D236B92A8EBAD5BB663

Doctors for the Environment have estimated that the external costs of power station pollution in NSW are 49 times higher than the current load-based licensing fees.

https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/licensing/lbl/lbl-issues-paper-doctors-for-the-environment.pdf?la=en&hash=6C115A77E8F9BB507FEC7C6CF8EA0AF20BFEC42F

While there is uncertainty in all these estimates, any reasonable cost-benefit analysis would find that the current load-based licensing fees applied to the electricity sector are highly inefficient by large orders of magnitude.

Kind regards,

Jonathan Moylan

NSW Clean Air Campaigner

Healthy Futures