



Submission

in response to

Victoria Clean Air Statement

prepared by

Environmental Justice Australia

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About Environmental Justice Australia

Environmental Justice Australia is a not-for-profit public interest legal practice. We are independent of government and corporate funding. Our legal team combines technical expertise and a practical understanding of the legal system to protect our environment.

We act as advisers and legal representatives to community-based environment groups, regional and state environmental organisations, and larger environmental NGOs, representing them in court when needed. We also provide strategic and legal support to their campaigns to address climate change, protect nature and defend the rights of communities to a healthy environment.

We also pursue new and innovative solutions to fill the gaps and fix the failures in our legal system to clear a path for a more just and sustainable world.

For further information on this submission, please contact:

Bronya Lipski, lawyer, Environmental Justice Australia

T: 03 8341 3100

E: admin@envirojustice.org.au

Introduction

Environmental Justice Australia welcomes the opportunity to provide a submission to the Victorian Air Quality Statement. We have been advocating for better air pollution laws for several years, and consider the Victorian Government's preparation of this statement as an opportunity to embed several strong mechanisms to reduce Victoria's air pollution.

Air pollution causes at least 3000 deaths a year in Australia, and causes chronic disease and disability for tens of thousands more¹. Dramatically reducing people's exposure to air pollution is the only way to reduce these rates of death and disease. Actions taken to reduce air pollution should not be reduced to their cost effectiveness. As discussed below, the health cost of air pollution to the Victorian community is similar to the cost of the road toll, and as such, should be treated as seriously. Just as we need to reduce the road toll to zero, so too should we be aiming to move to a zero-emissions future.

The Victorian Air Quality Statement should start where the problem with air pollution starts – with the laws that regulate ambient air quality and emissions limits. The Victorian Environment Protection Authority (EPA) report *Future Air Quality in Victoria* found that as Victoria's population increases, fine particle and ozone pollution should be the primary policy focus over the next one to two decades.² Whilst Victoria has taken steps to improve ambient air standards for particulate matter, other standards need to be tightened to protect human health. Victoria is leading on the NEPM review of ozone, NO_x and SO_x ambient air standards, but this process is lagging and is not expected to be completed until 2020 and will take further time to implement. This process should be expedited. Victoria's air pollution laws provide the legal basis on which the Victorian Government can implement the changes necessary to reduce air pollution and move towards a pollution-free future.

Summary of recommendations:

1. Commit to reducing air pollution to as close to zero as possible.
2. Strengthen Victoria's air pollution laws.
3. Expedite the introduction of a load-based licencing scheme by removing legislative barriers, consistent with the recommendations of the 2015 Independent Inquiry into the EPA.
4. Amend all Latrobe Valley coal-fired power station licences to achieve best practise emissions limits with the aim of reducing emissions to as low as possible to protect human and environmental health, and require all three power stations to install flue gas desulphurisation, selective catalytic reduction, fabric bag filters, and activated carbon injection.
5. Do not fund, commission or approve facilities that cause significant amounts of air pollution.
6. Require heavy emitters to install best available pollution reduction technologies.

¹ Australian Government, Australian Institute of Health and Welfare, *Australian Burden of Disease study: Impact and causes of illness and death in Australia*, 2011 (Revised 2016).

² <http://www.epa.vic.gov.au/~media/Publications/1535.pdf>, p. 3.

7. Urgently improve access to monitoring data to ensure data from the Victorian Government and industry air pollution monitoring is immediately and openly accessible.
8. Ban diesel trucks on residential streets.
9. Electrify heavy diesel vehicles.
10. Invest in zero-emissions infrastructure and increase investment in public transport.
11. Introduce air pollution buffer zones into the Victorian Planning Provisions.
12. Increase monitoring when fuel reduction and logging coupe burns are lit.
13. The EPA, in collaboration with communities, DEWLP and other relevant government agencies, prepare a Protocol for the Environmental Management for managing air pollution for prescribed burns.
14. Treat logging coupe burn air pollution like other forms of industrial pollution and consider ways in which it can be better regulated.
15. Initiate a particle characterisation study for Melbourne to identify the contribution of wood-smoke pollution to the overall air pollution rate to inform stricter regulation of wood-fired heaters.
16. Increase monitoring in regional Victoria where wood-fired heaters are heavily used.

1. The best value action is to reduce air pollution to as low as possible across all sectors. Start with tightening Victoria's air pollution laws.

The best way to reduce the harm of toxic air pollution on people and the environment is to implement strategies that reduce air pollution to as low as possible across all sectors. Such initiatives are being undertaken in California including a target to get 5 million zero-emissions vehicles on roads by 2030 and construction of associated infrastructure,³ and plans being implemented to significantly reduce air pollution at the Port of Los Angeles.⁴

Australia's air pollution laws and standards are insufficient to protect human and environmental health. Some changes have been made to the *National Environment Protection (Ambient Air) Measure* to tighten standards for coarse and fine particle pollution, and currently the Victorian government is leading the National Environment Protection Council process to make standards stricter for ozone, oxides of nitrogen and sulphur dioxide pollution. However Victoria is not bound to the national standards and can make Victorian air pollution standards stricter to better protect human and environmental health.⁵ The EPA has powers to instruct heavy polluters to reduce their emissions and to make licence conditions stronger than what they currently are.⁶ If our environmental regulator is not encouraged to utilise the powers available to it then polluters won't change their behaviour.

³ Executive Order B-48-18, 26 January 2018: <https://www.gov.ca.gov/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/>.

⁴ <https://www.portoflosangeles.org/environment/progress/initiatives/zero-emission-technologies/>.

⁵ *National Environment Protection Council (Victoria) Act 1995* (Vic) Schedule 4, cl. 19.

⁶ *State Environment Protection Policy (Air Quality Management)* cl. 18(3)(a); *Environment Protection Act 1970* (Vic) s. 20(9)(c).

Ultimately the best value action to reduce air pollution is to strengthen our air pollution laws, improve air pollution standards, and include mandatory emissions reductions obligations across all sectors. Air pollution emissions reduction targets should be implemented in a similar way to the emissions reduction targets in the *Climate Change Act 2017* (Vic) with a focus on toxic emissions such as particulate matter, nitrogen dioxide and sulphur dioxide.

The *State Environment Protection Policy (Air Quality Management) (SEPP (AQM))* requires emissions generators to pursue continuous improvement in their environmental management practises and environmental performance, and apply best practice to the management of air emissions.⁷ However the EPA does not enforce these provisions with rigour or consistency. Coal-fired power stations in the Latrobe Valley, for example, do not have best practice management of air pollution despite best practise technologies being utilised in most other international jurisdictions. The only emissions reduction requirement in the *SEPP (AQM)* is for Class 3 indicators.⁸

The *SEPP (AQM)* should require, and the EPA be willing to enforce, emissions generators to install best available technologies and broaden the requirement for emissions reduction via a program of mandatory continuous improvement to reduce air pollution as close to zero as possible for all air emissions.

Recommendation 1: Commit to reducing air pollution to as close to zero as possible.

Recommendation 2: Strengthen Victoria's air pollution laws.

2. Protecting health is cost-effective: expedite the introduction of a load-based licencing scheme.

3000 deaths a year in Australia are caused by air pollution.⁹ The annual health cost of air pollution to the community for morbidity alone has been estimated at \$11-\$24 billion.¹⁰ And yet the cost of implementing measures to reduce air pollution are frequently questioned by polluters and regulators. In contrast, the "cost-effectiveness" of road safety campaigns is not questioned. This is despite the road toll contributing to less than half the number of death caused by air pollution,¹¹ with an annual estimated cost of \$27 billion to the Australian community,¹² which is only slightly higher than the estimated cost of air pollution. By contrast, the United States *Clean Air Act* requires the federal Environment Protection Agency to set national air standards based entirely on protecting public health and welfare,¹³ without consideration for cost.

⁷ *State Environment Protection Policy (Air Quality Management)* cl. 18(3)(b)-(c).

⁸ *State Environment Protection Policy (Air Quality Management)* cl. 18(3)(c).

⁹ Australian Government, Australian Institute of Health and Welfare, *Australian Burden of Disease study: Impact and causes of illness and death in Australia*, 2011 (Revised 2016).

¹⁰ <https://soe.environment.gov.au/theme/ambient-air-quality/topic/2016/health-impacts-air-pollution>.

¹¹ 1225 road deaths to December 2017. See:

https://bitre.gov.au/publications/ongoing/rda/files/RDA_Dec_2017.pdf.

¹² <http://www.abc.net.au/news/2017-01-02/road-crashes-costing-australian-economy-billions/8143886>.

¹³ See: <https://www.epa.gov/clean-air-act-overview/setting-emissions-standards-based-technology-performance>.

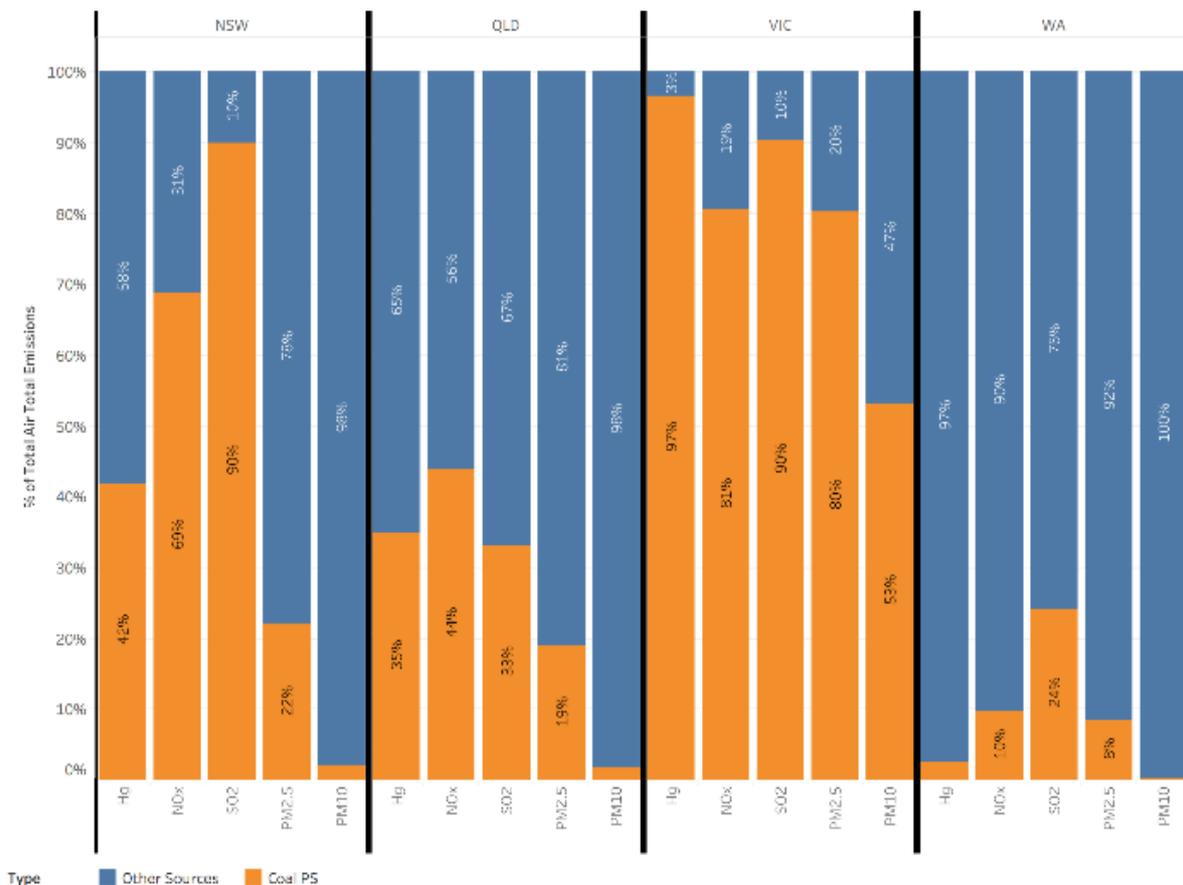
The government has declared that it will ‘remove barriers to load-based licencing, to enable it to be considered as one possible tool to efficiently achieve desired regulatory outcomes as a part of an integrated toolkit’.¹⁴ This process needs to be expedited to ensure polluters pay an adequate amount that reflects the health impacts and other externalities of air pollution and provides a genuine incentive to reduce pollution.

Recommendation 3: Expedite the introduction of a load-based licencing scheme by removing legislative barriers, consistent with the recommendations of the 2015 Independent Inquiry into the EPA.

3. Significantly reduce the toxic pollution from Victoria’s power stations

As shown in the graph below coal fired power stations are the single biggest source of Mercury, NOx, SO2, PM2.5 and PM10 in Victoria. The document the Government has released for this consultation process, the *Clean Air for All Victorian Air Quality Statement* glosses over this fact, and doesn’t even list power generation as one of main sources of *any* pollutant. Due to their extremely high emissions, and close proximity to Latrobe Valley and other Gippsland communities, power stations warrant particular attention.

Coal Power Station emissions: % of NPI Inventory 2013-17



¹⁴ State of Victoria Department of Environment, Land, Water and Planning, *Andrews Labor Government Response to the Independent Inquiry into the Environment Protection Act*, 2017, 23.

Our report [Toxic and Terminal](#) highlighted the ways in which Victoria's air pollution licencing scheme is inadequate for coal-fired power stations when compared with other jurisdictions, including the United States, China, and the European Union.¹⁵ We acknowledged that the EPA is currently reviewing the licences for the remaining Latrobe Valley power stations and see this as an opportunity for the EPA to bring the power station licences in line with international best practice and require the power stations to install best available pollution reduction technologies including fabric bag filters to better remove fine particle pollution, selective catalytic reduction to better remove nitrogen oxide emissions, flue gas desulphurisation to significantly remove SO₂ emissions, and activated carbon injection and disposal to significantly reduce mercury emissions.

Recommendation 4: The EPA must amend all Latrobe Valley coal-fired power station licences to achieve best practise emissions limits with the aim of reducing emissions to as low as possible to protect human and environmental health, and require all three power stations to install flue gas desulphurisation, selective catalytic reduction, fabric bag filters, and activated carbon injection.

4. Do not fund, commission, or approve new sources of heavy air pollution such as coal-fired power stations, coal-to-hydrogen facilities, or waste-to-energy incinerators.

There has been recent discussion of the construction of new, heavily polluting industries such as coal-fired power stations, coal-to-hydrogen facilities, and waste-to-energy facilities. The air pollution from these facilities is toxic to people and the environment, and the adequacy of our air pollution laws to genuinely protect human and environmental health, particularly for communities living near those facilities, is questionable.

We disagree with the Department of Environment, Land, Water and Planning's assertion that Victoria has strong laws controlling industrial emissions. As discussed in section 3 above, the regulation of toxic emissions from power stations falls far behind the rest of the world.

There are other, more sustainable ways to produce base load energy, produce hydrogen, and manage our increasing waste problem. Using coal or combusting waste is not the answer. The Victorian government must undertake a commitment not to build, finance or commission any such facilities and instead invest in cleaner, more sustainable approaches to safeguarding our energy supply and managing waste in a way that satisfies social and environmental justice.

Recommendation 5: Do not fund, commission or approve facilities that cause significant amounts of air pollution.

Recommendation 6: Require heavy emitters to install best available pollution reduction technologies.

¹⁵ Environmental Justice Australia, *Toxic and terminal: how the regulation of coal-fired power stations fails Australian communities* (2017) p. 23-27.

5. Access to air pollution data is cumbersome if not prohibitive.

Access to air pollution information in Victoria is inadequate, particularly when compared with other states. On the New South Wales Environment and Heritage website any person can search and download air pollution data, and full validated data sets for all EPA monitoring stations are available within approximately a month of the data being collected.¹⁶ Under NSW law, and where it is a condition on a pollution licence, monitoring data collected by heavy polluters such as coal-fired power stations must be made publicly available on the operator's website.¹⁷

This contrasts with the Victoria EPA who can take half a year to validate their data before making it available to the public. As an example, EJA requested the monitoring data from the Victorian EPA in February 2018 for all Latrobe Valley air monitors in 2017. We were told we could have the data once it was validated. After a protracted process of following up with EPA staff over several months we eventually received that data in late May. Accessing data via the government data website is equally prohibitive, and is not accessible by the general community.

We acknowledge that the Victorian government has taken steps towards improving access to pollution information, such as the Latrobe Valley co-designed air monitoring network (which has not yet been implemented over a year later) and in accepting recommendations made by the Independent Inquiry into the EPA. However it is inadequate that pollution data is unavailable to the community at times when significant reviews are under way, such as the Latrobe Valley power station licence review and this air statement. Access to information needs to be expedited, and the NSW example is the model that should be followed.

Recommendation 7: Urgently improve access to monitoring data to ensure data from the Victorian Government and industry air pollution monitoring is immediately and openly accessible.

6. Ban diesel trucks on residential streets.

The World Health Organisation has declared diesel pollution a 'Group 1' carcinogen.¹⁸ The combustion of diesel in engines of trucks and cars produces deadly fine particulate matter that is inhaled deep into the lungs and bloodstream where it causes and contributes to cancers, strokes, and a range of respiratory and other illnesses.

Yet there are communities in Melbourne's west who are subjected to high rates of diesel pollution because of heavy truck traffic on residential streets. The simplest way to ensure that these communities stop being exposed to toxic air pollution from diesel vehicles is to ban trucks from these roads.

¹⁶ See: <http://www.environment.nsw.gov.au/aqms/search.htm>.

¹⁷ *Protection of the Environment Operations Act 1997* (NSW) s. 66(6).

¹⁸ World Health organisation, International Agency for Research on cancer, *IARC: Diesel engine exhaust carcinogenic*, Press Release No. 2123, 12 June 2012 < https://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf>.

Moreover, Victoria should develop mechanisms to phase out heavy diesel vehicles with electric alternatives including busses used for public transport. As Victoria's energy system transitions to renewable energy, these vehicles will be carbon neutral as well as not creating local air pollution. Such initiatives are being undertaken in other jurisdictions such as Los Angeles, where LA Metro has invested US\$138 to buy 95 electric buses.¹⁹ Victorian-based electric bus manufacturers could be approached by the Government to manufacture electric busses for Victoria's public transport system which will both create jobs and reduce traffic pollution.²⁰

Recommendation 8: Ban diesel trucks on residential streets.

Recommendation 9: Electrify heavy diesel vehicles.

7. Invest in zero-emissions infrastructure and increase investment in public transport.

As part of reaching zero emissions across all sectors, the Victorian government should facilitate round-table discussions between key stakeholders – including the community – to develop zero-emissions infrastructure plans. Such plans would address the indirect sources of air pollution from freight hubs including ports, railyards, warehouse and distribution centres. California has successfully developed and implemented a Sustainable Freight Action plan,²¹ and Clean Air Action Plan for the San Pedro Bay Ports area,²² both of which work towards zero emissions. Similar initiatives should be undertaken in Melbourne.

As a way of achieving zero emissions infrastructure the Government should implement the vision statement articulated in the *Transport Integration Act* to ensure that the objectives and principles of the Act are achieved.²³ As an example of how to achieve the vision of the *Transport Integration Act* we support the proposals outlined in the *Community Powered Transport Plan* developed by Friends of the Earth Melbourne.²⁴ This will work towards drastically reducing air pollution from vehicle traffic and significantly increase public transport systems. Moreover, if the government continues with the initiatives it has already commenced to make public transport powered by renewable energy the air in Melbourne will improve exponentially.²⁵ Other actions the Government could take to encourage an increase in public transport usage include reducing the incentive for people to use their vehicles by making public transport cheaper and more accessible, and increasing the cost of car parking in Melbourne's inner city.²⁶

¹⁹ See: <http://www.latimes.com/local/lanow/la-me-ln-metro-electric-buses-20170727-story.html>.

²⁰ See: <http://avass.com.au/news-and-media>.

²¹ See: http://dot.ca.gov/hq/tpp/offices/ogm/cs_freight_action_plan/theplan.html.

²² See: <http://www.cleanairactionplan.org/>.

²³ See: *Transport Integration Act 2010* (Vic) ss. 6-21.

²⁴ See: <https://www.getonboard.org.au/findoutmore>.

²⁵ See: <https://www.premier.vic.gov.au/solar-trams-transporting-victoria-to-a-brighter-future//>

²⁶ For a comprehensive review of Melbourne and Sydney's traffic congestion issues see: Terrill, Marion, *Stuck in traffic? Road congestion in Sydney and Melbourne* (Grattan Institute, October 2017), p. 4.

Recommendation 10: Invest in zero-emissions infrastructure and increase investment in public transport.

8. Introduce air pollution buffer zones into Victorian Planning Scheme.

There are no air pollution buffer zones in the Victorian planning scheme. The Victorian government should introduce air pollution buffer zones into the planning scheme, at the very least for “sensitive uses” such as schools and childcare centres, to ensure future road use planning and development includes mechanisms to reduce or eradicate people’s exposure to vehicle pollution.

The Victorian Environment Protection Authority has developed a guideline for *Recommended Separation Distances for Industrial Residual Air Emissions*.²⁷ However, this guideline applies only to off-site odour and dust emissions from industrial sources rather than dealing with point-source air pollution such as vehicle emissions. The Victorian government should instruct the EPA to develop a guideline that recommends separation distances from heavy traffic pollution and include suggestions for reducing air pollution exposure when it already exists in heavy traffic routes.

Recommendation 11: Introduce air pollution buffer zones into the Victorian Planning Provisions.

9. Monitor and manage air pollution from fire reduction burns and industrial clear fell logging burns.

Every autumn, Victoria is covered in thick air pollution when fire reduction programs are commenced and Vic Forest logging coupes are lit to incinerate clear fell logging debris. There has been some movement towards reducing the number of burns when conditions would create significant air pollution in Melbourne,²⁸ however this is little comfort for those communities in regional parts of Victoria who are exposed to days and weeks of toxic air pollution without a similar response from authorities and without the benefit of air pollution monitors to help them understand what they are breathing during these periods.

The air pollution from fuel reduction and coupe burns is not adequately monitored. The EPA has mobile air pollution monitors it can deploy at times of emergency. These mobile monitors should be placed in areas where air pollution from fuel reduction and coupe burns is worst. The data collected from these monitors should inform better fuel reduction and logging coupe burn practises to reduce, as much as possible, people’s exposure to this toxic air pollution.

Clear fell logging practises are essentially unnecessary because there are more appropriate environmental means to harvest timber which do not carry the public health risks associated with clear fell logging coupe burns, such as single tree selection. However in the event that clear fell practises will not be eradicated, air pollution from clear fell logging coupe burns should be considered as industrial pollution. Essentially, this air pollution is generated by private operators after it has

²⁷ Environment Protection Authority Victoria, *Recommended separation distances for industrial residual air emissions*, Publication Number 1518, March 2013.

²⁸ See: <http://www.heraldsun.com.au/news/victoria/smoke-haze-from-controlled-burns-covers-melbourne/news-story/3d927cae527abfe8c941203239570c4f>.

felled the forests for commercial gain. Other industrial operators who produce pollution are subject to regulations and licencing that impose legal obligations designed to restrict pollution discharges to the environment. It does not appear that logging coupe burns are subject to such regulation despite the known risks these burns cause to human and environmental health. Moreover, the *Environment Protection Act 1970* (Vic) states that atmospheric discharges must comply with both *State Environment Protection Policies* (SEPP) for air - the *SEPP (AQM)* and *SEPP (Ambient Air Quality)*.

The *SEPP (Air Quality Management)* requires the EPA, in partnership with relevant Government agencies, fire authorities and other stakeholders, to develop protocols for environmental management (PEM) for managing the potential impacts of prescribed burning.²⁹ It appears that such a PEM has not been made. In partnership with communities who will be, and will continue to be, exposed to air pollution from both fuel reduction burns and logging coupe debris burns, the Victorian Government should initiate the preparation of a PEM for managing air pollution in collaboration with the Department of Environment, Land, Water and Planning, and the Department of Health and Human Services. Ideally this would be completed before the next burn season.

Recommendation 12: Increase monitoring when fuel reduction and logging coupe burns are lit.

Recommendation 13: The EPA, in collaboration with communities, DEWLP and other relevant government agencies, prepare a Protocol for the Environmental Management for managing air pollution for prescribed burns.

Recommendation 14: Treat logging coupe burn air pollution like other forms of industrial pollution and consider ways in which it can be better regulated.

10. Tighten regulation and monitoring of wood-fired heaters

Wood-fired heaters produce significant amounts of fine particle pollution that is toxic to health. The EPA acknowledges that it is a significant contributor to poor air quality throughout Victoria, particularly throughout the autumn and winter months.³⁰ Air pollution from wood-fired heaters causes up to 48 per cent of the Sydney's total PM10 emissions and 60% of PM2.5 emissions.³¹ This rate is known because the New South Wales EPA and office of Environment and Heritage commissioned the Australian Nuclear Science and Technology Organisation to carry out particle characterisation studies for Sydney, Upper Hunter and Lower Hunter Valley which identified the contribution of wood-smoke air particle pollution.³² These particle characterisation studies should be

²⁹ *State Environment Protection Policy (Air Quality Management)* cl. 37(1).

³⁰ <https://www.epa.vic.gov.au/your-environment/air/wood-burning-and-air-quality/why-is-wood-smoke-an-issue>.

³¹ NSW EPA, Submissions No. 80 to Senate Affairs Reference Committee, Parliament of Australia, *Impacts on Health of Air Quality in Australia*, 2013, p. 33.

³² For the Sydney particle characterisation study see: <https://www.epa.nsw.gov.au/your-environment/air/regional-air-quality/sydney-particle-characterisation-study>. For the Lower Hunter particle characterisation see: <http://www.environment.nsw.gov.au/research-and-publications/publications-search/lower-hunter-particle-characterisation-study>. For the Upper hunter particle characterisation study see: <http://www.environment.nsw.gov.au/topics/air/research/previous-research/upper-hunter-fine-particle-characterisation-study>.

undertaken in Victoria to inform stricter regulation of wood-smoke heaters, in addition to implementing a comprehensive air monitoring network in regional Victorian areas to help people understand the rate of air pollution.

Recommendation 15: Initiate a particle characterisation study for Melbourne to identify the contribution of wood-smoke pollution to the overall air pollution rate to inform stricter regulation of wood-fired heaters.

Recommendation 16: Increase monitoring in regional Victoria where wood-fired heaters are heavily used.

11. National advocacy

Australian governments all talk about their commitment to reducing air pollution. However the limited action taken to genuinely reduce air pollution, especially from the heaviest polluters, makes it clear that air pollution reduction is not a priority for any government in Australia at state, territory or federal level. Some progress has been made at the national level after the development of the National Clean Air Agreement including amendments to the NEPM and the introduction of the *Product Emissions Standards Bill 2017* including ‘non-road spark engines and equipment’ like hand-held leaf blowers,³³ which are welcome but do not go far enough to ensure that major air pollution sources are strictly regulated in Australia.

Key areas the Victorian government should advocate for nationally include:

- Expediting the NEPM review for NO_x and SO₂ standards which has been consistently delayed.
- Supporting the introduction of Commonwealth air pollution standards which apply nationally to replace the failing NEPM system.
- Developing and implementing a national load based licencing scheme for heavy polluters.
- Immediate adoption of NEPM standards that bring Australia’s air pollution standards in line with international best practise while a new federal system for air pollution standards is being established.

³³ See: http://parlinfo.aph.gov.au/parlInfo/download/legislation/billsdgs/5500758/upload_binary/5500758.pdf.