

## **NEPM Variation Detailed Submission Guide 2019**

A simpler, less detailed submission guide can be found at: <https://www.envirojustice.org.au/national-pollution-standards/>

### **Background**

Australia's national air pollution standards are being reviewed by all Australian Governments. This is a rare opportunity to strengthen air pollution standards in Australia. Australian standards for sulphur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>) and ozone (O<sub>3</sub>) are outdated, and currently exceed the World Health Organisation's recommended thresholds. By international comparison, Australia's regulation of air pollution lags significantly: much stricter standards have been adopted in most other countries, including the US, EU, and China.

On 24 May the National Environment Protection Council (NEPC) released an Impact Statement and for public consultation to vary the National Environment Protection (Ambient Air Quality) Measure standards for NO<sub>2</sub>, SO<sub>2</sub> and O<sub>3</sub> (**NEPM variation**).

A copy of the Impact Assessment and supporting information can be found here:  
<http://www.nepc.gov.au/nepms/ambient-air-quality/proposed-variation/consultation-2019>

Submissions to the public consultation process for the variation can be made to the NEPC. The closing date for submissions is **Wednesday 07 August 2019**.

Environmental Justice Australia (EJA) has been advocating for strict pollution laws for several years. This submission guide has been prepared based on our analysis of the documents prepared for the NEPM variation. EJA acknowledges the expert advice and guidance provided by Doctors for the Environment Australia in compiling this guide.

If you make a submission to the NEPM variation, you do not need to confine yourself to the issues raised in the NEPM variation or the issues raised by EJA. Indeed, your submission will be more powerful if you write about the issues of most concern from your perspective.

**Summary of EJA recommendations:** *(more detail on each recommendation below)*

1. Lower the standards for NO <sub>2</sub> , SO <sub>2</sub> and O <sub>3</sub> to reflect international best practice and change how the standards are measured. [The value and forms proposed are outlined in a table below.]
2. The network of NEPM compliance monitors should be expanded to reflect particular risks from widespread source emissions, such as major roadways.
3. Air pollution monitoring data must be made publicly available through a coordinated national website, allowing access to real-time and historical data.
4. Strong health-based standards are required now to protect health, with an exposure reduction framework in place for continual improvement of the standards.
5. Options for air pollution control and abatement should not be assessed purely on the basis of a cost-benefit analysis.
6. Remove the exemption for small population centres from monitoring and reporting obligations and enforce requirements for monitoring in communities at risk of air pollution.
7. Adopt an improved protocol for community involvement in the development, implementation and review of air pollution standards.
8. All State, Territory and Commonwealth Governments must ensure the National Environment Protection Council (Australia's 9 environment ministers) adopt the new standards as a priority – by the end of 2019.
9. State regulators must ensure compliance with the new standards from the commencement of the NEPM in 2020.
10. Conduct a national review of this NEPM variation in 2025.
11. Commit to new research and policy development for the future.
12. Replace Australia's broken air pollution regulatory scheme with a national Clean Air Act.

**Recommendation 1: Lower the standards of NO<sub>2</sub>, SO<sub>2</sub> and O<sub>3</sub> to reflect international best practice and change how the standards are measured.**

We recommend lowering the threshold standards and altering the reporting metrics as outlined in this table:

<b>Standard</b> (All units in ppb)	<b>International standards</b>	<b>Current Australian standard</b>	<b>Standards proposed in the NEPM impact statement</b>	<b>We propose</b>
<b>SO<sub>2</sub> 1-hour</b>	<b>US:</b> 75, as 99th centile of daily worst hour <b>Canada:</b> 70, as 99th centile of daily worst hour <b>EU:</b> 124	200, as yearly worst hour, not to be exceeded.	100, as yearly worst hour, not to be exceeded.	60, as 99th centile of daily worst hour.
<b>SO<sub>2</sub> 24-hour</b>	<b>WHO:</b> 7.6 <b>EU:</b> 44 <b>UK:</b> 44	80	20, no exceedances	8, no exceedances
<b>SO<sub>2</sub> annual</b>	<b>Canada:</b> 5 No standard in other jurisdictions.	20	No standard	No standard
<b>NO<sub>2</sub> 1-hour</b>	<b>WHO:</b> 97 <b>US:</b> 100, as 98th centile of daily worst hour <b>EU:</b> 97	120	90, as yearly worst hour.	72, as 99th centile of daily worst hour.
<b>NO<sub>2</sub> annual</b>	<b>WHO:</b> 19 <b>US:</b> 53 <b>EU:</b> 19	30	19, no exceedances	9, no exceedances

<b>O<sub>3</sub></b> <b>1-hour</b>	<b>NZ: 70</b> <b>Japan: 60</b>	100	No standard	70
<b>O<sub>3</sub></b> <b>4-hour</b>	No standard in other jurisdictions.	80	No standard	No standard
<b>O<sub>3</sub></b> <b>8-hour</b>	<b>WHO: 47</b> <b>US: 70 99th centile</b> <b>Canada: 63</b> <b>EU: 56</b>	No standard	65	47

**Recommendation 1.1: Make the 1-hour standard for SO<sub>2</sub> a compliance standard of 60 ppb, as 99th centile of daily worst hour.** Since the evidence for adverse effects from even brief exposure to SO<sub>2</sub> is strong, the strongest standard for a one-hour average value is critical. There is no reason why the 75ppb standard should be delayed until 2025, given we know this standard can be achieved with minimal to no exceedances or abatement required. 60ppb as 99th centile of daily worst hour is a more effective and representative average measurement standard than 75ppb as a single upper threshold.

**Recommendation 1.2: Make the 24-hour average for SO<sub>2</sub> a compliance standard of 8ppb, in line with the World Health Organisation standard set in 2005.**

**Recommendation 1.3: Make the 1-hour standard for NO<sub>2</sub> a compliance standard of 72ppb, as 99th centile of daily worst hour.** Since the evidence for adverse effects from even brief exposure to NO<sub>2</sub> is strong, the strongest standard for a one-hour average value is critical. There is no reason why the 80ppb standard should be delayed until 2025, given we know this can be achieved with minimal to no exceedances or abatement required. Adopting 72ppb as 99th centile of daily worst hour is a more effective and representative average measurement standard than 80ppb as a single upper threshold.

**Recommendation 1.4: Make the annual average for NO<sub>2</sub> a compliance standard of 9ppb, in line with the science.** The WHO standard of 19ppb was set in 2005. Recently published Australian health studies demonstrate statistically significant health impacts at pollutant concentrations well below the WHO threshold for NO<sub>2</sub>. This includes the 2018 *Australian Child Health and Air Pollution Study*, which found

increased risk of asthma and reduced lung function in children 7 – 11 years) at a mean NO<sub>2</sub> exposure of 8.8ppb.<sup>1</sup> The NO<sub>2</sub> standard of 9ppb is already met in all cities except Sydney and Melbourne, so it is easily achievable.

**Recommendation 1.5: Retain the 1-hour average for O<sub>3</sub>, and make it a compliance standard of 70ppb, in line with the New Zealand standard.**

**Recommendation 1.6: Make the 8-hour average for O<sub>3</sub> a compliance standard of 47ppb, in line with the World Health Organisation standard set in 2005.**

**Recommendation 2: The network of NEPM compliance monitors should be expanded to reflect particular risks from widespread source emissions, such as major roadways.**

Air pollution standards must protect people wherever they live, including those close to coal-fired power stations and major roadways. To accurately reflect population exposure, the network of NEPM compliance monitors should be expanded to more effectively evaluate the exposure of populations living near major sources of air pollution. This includes urban roadside locations where people live, work and learn, including schools and childcare centres.

**Recommendation 3: Air pollution monitoring data must be made publicly available through a coordinated national website, allowing access to real-time and historical data.**

Air pollution is a matter of public interest. Communities have a right to know what they are breathing. All air pollution monitoring data must be made publicly available to community members in all states and territories through a coordinated national website, allowing access to real-time and historical data. This would include records from daily monitoring of key pollutants and regular modelling of dispersal from all

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<sup>1</sup> Knibbs, Cortés de Waterman, Toelle, Guo, Denison, Jalaludin, Williams. (2018). The Australian Child Health and Air Pollution Study (ACHAPS): A national population-based cross-sectional study of long-term exposure to outdoor air pollution, asthma, and lung function. *Environment International*, 120, 394-403.

point sources, such as coal-fired power stations and major roadways. The New South Wales air pollution monitoring website is an excellent model for this.

On the [NSW Environment and Heritage website](#) anyone can search and download air pollution data. Full data sets for all EPA monitoring stations are available immediately.<sup>2</sup> This contrasts with many other states and territories that 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 January 2019 for all Latrobe Valley air monitors in 2018. We were told we could have the data once it was validated. At time of writing (July 2019), we are still waiting for this data despite several requests for updates.

**Recommendation 4: Strong health-based standards are required now to protect health, with an exposure reduction framework in place for continual improvement of the standards.**

There is no safe threshold for exposure to air pollution. Health impacts have been studied and reported at concentrations well below the current and proposed NEPM standards.<sup>3</sup> Strong health-based standards are required now to minimise ongoing damage to the health of Australians. There is no rational basis for proposing a weak standard now and a tighter standard in future. But none of the standards proposed in the Impact Statement are the strictest standard of the options canvassed.

Health experts are universally critical of the practice of managing ‘up to’ the national standards. Mere compliance with the standards is insufficient from a health standpoint. As recommended in the 2011 NEPM review, the objective should be “minimise the risk from adverse health impacts from exposure to air pollution for all people wherever they may live”. This would mean adopting standards that minimise the air pollution health burden in places like the Latrobe Valley and Hunter Valley. Instead, the impact statement concludes that national standards should not be used to regulate air pollution in “locations that are dominated by large industrial sources” like the Valleys and that “state-based abatement measures would be the most suitable action to achieve compliance”. In reality, the national air pollution standards set the

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<sup>2</sup> See: <http://www.environment.nsw.gov.au/aqms/search.htm>.

<sup>3</sup> See the table below, summarising Australian health studies published in the past decade, which demonstrate statistically significant health impacts from exposure to NO<sub>2</sub>, SO<sub>2</sub>, and O<sub>3</sub> at concentrations below current and proposed NEPM thresholds.

framework within which state regulators interpret their responsibilities and determine their strategies. State governments will not regulate pollution any more than they are required to through the NEPM (and generally they do much less).

Air pollution standards should ensure pollution controls and monitoring requirements that reflect best practice and provide a schedule for continuous improvement, so that air pollution continues to be reduced over time to get as close to zero as possible. An exposure reduction framework is required to continually improve the standards as new human and environmental health data becomes available.

**The following table summarises Australian health studies published in the past decade, which demonstrate statistically significant health impacts from exposure to NO<sub>2</sub>, SO<sub>2</sub> and O<sub>3</sub> at concentrations below current NEPM thresholds.**

Study and location	Findings
Knibbs et al. (2018) <sup>4</sup> Across 5 Australian cities	Small increases in nitrogen dioxide exposure are significantly associated with increased risk of asthma and reduced lung function in children (7 – 11 years). Mean NO <sub>2</sub> exposure 8.8ppb.
Chen (2018) <sup>5</sup> Brisbane	SO <sub>2</sub> , NO <sub>2</sub> and O <sub>3</sub> associated with adverse birth effects (preterm birth and low birth weight) with the strongest effect observed for sulfur dioxide and ozone and trimester 3 exposure. Mean SO <sub>2</sub> 1.84ppb. Mean NO <sub>2</sub> 6.74ppb. Mean O <sub>3</sub> 16.76ppb.

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<sup>4</sup> Knibbs, Cortés de Waterman, Toelle, Guo, Denison, Jalaludin, Williams. (2018). The Australian Child Health and Air Pollution Study (ACHAPS): A national population-based cross-sectional study of long-term exposure to outdoor air pollution, asthma, and lung function. *Environment International*, 120, 394-403.

<sup>5</sup> Chen, Guo, Abramson, Williams, & Li. (2018). Exposure to low concentrations of air pollutants and adverse birth outcomes in Brisbane, Australia, 2003–2013. *Science of the Total Environment*, 622-623, 721-726.

Bowatte (2018) <sup>6</sup> Cohort of Australians, originally recruited from Tasmania, now residing across Australia	NO <sub>2</sub> associated with increased risk of both the development and persistence of asthma in middle-aged Australians. Mean NO <sub>2</sub> 5.4ppb.
Bowatte (2017) <sup>7</sup> Cohort of Australians, originally recruited from Tasmania, now residing across Australia	Long term exposure to NO <sub>2</sub> associated with allergies, wheeze, and reduced lung function in middle aged. Carriers of GSTT1 null genotype are at increased risk. Mean NO <sub>2</sub> 5.4ppb.
Perret et al. (2017) <sup>8</sup> Cohort of Australians, originally recruited from Tasmania, now residing across Australia	Positive association between NO <sub>2</sub> and raised Interleukin6 levels (marker of systemic inflammation). Mean NO <sub>2</sub> 4.2 ppb.
Li et al. (2016) <sup>9</sup> Brisbane	Preterm birth associated with exposure to NO <sub>2</sub> and SO <sub>2</sub> directly prior to onset of labour. Mean NO <sub>2</sub> 6.52 ppb. Mean SO <sub>2</sub> 1.95 ppb.
Xu et al. (2013) <sup>10</sup> Brisbane	O <sub>3</sub> significantly associated with lab confirmed influenza in children 0 – 14 years. Mean O <sub>3</sub> 15.3 ppb.
Perreira (2012) <sup>11</sup> Perth	Exposure to NO <sub>2</sub> in mid-late pregnancy is associated with increased risk of fetal growth restriction. Mean NO <sub>2</sub> 23.04ppb.

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<sup>6</sup> Bowatte, G., Lodge, C., Knibbs, L., Erbas, B., Perret, J., Jalaludin, B., Dharmage, S. (2018). Traffic related air pollution and development and persistence of asthma and low lung function. *Environment International*, 113, 170-176.

<sup>7</sup> Bowatte, Lodge, Knibbs, Lowe, Erbas, Dennekamp, Dharmage. (2017). Traffic-related air pollution exposure is associated with allergic sensitization, asthma, and poor lung function in middle age. *The Journal of Allergy and Clinical Immunology*, 139(1), 122-129.e1.

<sup>8</sup> Perret, J., Bowatte, Lodge, Knibbs, Gurrin, Kandane-Rathnayake, Dharmage. (2017). The dose–response association between nitrogen dioxide exposure and serum interleukin-6 concentrations. 18(5), 08 May 2017.

<sup>9</sup> Li, S., Guo, Y., & Williams, G. (2016). Acute Impact of Hourly Ambient Air Pollution on Preterm Birth. *Environmental Health Perspectives*, 124(10), 1623-1629.

<sup>10</sup> Xu, Z. W.; Hu, W. B.; Williams, G.; Clements, A. C. A.; Kan, H. D.; Tong, S. L., Air pollution, temperature and pediatric influenza in Brisbane, Australia. *Environment international* 2013, 59, 384-388.

<sup>11</sup> Pereira, G.; Cook, A. G.; Haggard, F.; Bower, C.; Nassar, N., Locally derived traffic-related air pollution and fetal growth restriction: a retrospective cohort study. *Occupational and environmental medicine* 2012, 69 (11), 815-822.

Periera et al. (2010) <sup>12</sup> Perth	NO <sub>2</sub> exposure associated with increased hospital ED admissions for asthma in children. Children 0 – 4 years most vulnerable to the effects. Mean NO <sub>2</sub> 6.79 ppb.
Wang et al. (2009) <sup>13</sup> Brisbane	Long-term exposure to SO <sub>2</sub> associated with cardio-respiratory mortality. Mean SO <sub>2</sub> 5.4ppb.
Hu et al. (2008) <sup>14</sup> Sydney	SO <sub>2</sub> and high temperatures contribute to excess mortality in summers in Sydney. Mean SO <sub>2</sub> 1 ppb.
Jalaludin et al (2008) <sup>15</sup> Sydney	NO <sub>2</sub> , SO <sub>2</sub> and O <sub>3</sub> associated with ED visits for asthma in children. Results most consistent for 1 – 4 years age group. Mean NO <sub>2</sub> 23.2 ppb.

**Recommendation 5: Options for air pollution control and abatement should not be assessed purely on the basis of a cost-benefit analysis.**

If economics are a factor in decision-making about reducing air pollution then the health cost of air pollution on the community must be a primary consideration. Air pollution is responsible for more than 3000 deaths in urban Australia per year.<sup>16</sup> The annual health cost of air pollution to the community for morbidity alone has been estimated at \$11-\$24 billion.<sup>17</sup> By contrast, no one ever questions the “cost-effectiveness” of road-safety campaigns. This is despite the road toll contributing to fewer than half the

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<sup>12</sup> Pereira, Gavin, Cook, Angus, De Vos, Annemarie J.B.M., & Holman, C DeArcy J. (2010). A case-crossover analysis of traffic-related air pollution and emergency department presentations for asthma in Perth, Western Australia. (Clinical report). *The Medical Journal of Australia*, 193(9), 511-514.

<sup>13</sup> Wang, X., Hu, W., & Tong, S. (2009). Long-term exposure to gaseous air pollutants and cardio-respiratory mortality in Brisbane, Australia. *Geospatial Health*, 3(2), 257-263.

<sup>14</sup> Hu, W., Mengersen, K., McMichael, A., & Tong, S. (2008). Temperature, air pollution and total mortality during summers in Sydney, 1994–2004. *International Journal of Biometeorology*, 52(7), 689-696.

<sup>15</sup> Jalaludin, B., Khalaj, B., Sheppard, V., & Morgan, G. (2008). Air pollution and ED visits for asthma in Australian children: A case-crossover analysis. *International Archives of Occupational and Environmental Health*, 81(8), 967-974.

<sup>16</sup> 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).

<sup>17</sup> <https://soe.environment.gov.au/theme/ambient-air-quality/topic/2016/health-impacts-air-pollution>.

number of deaths caused by air pollution,<sup>18</sup> and an annual estimated cost of \$27 billion to the Australian community,<sup>19</sup> a little higher than the estimated cost of air pollution.

If the purpose of the NEPM is to “minimise the risk from adverse health impacts from exposure to air pollution for all people wherever they may live,” then alleviating the health burden must take priority in any cost-benefit analysis. Yet the standards assessed in the NEPM impact statement are not world’s best practice and appear to have been proposed on the basis that they are readily achievable (or already achieved) and therefore would not impose a cost-burden on polluters. This ignores the reality that the burden of controlling pollution falls largely on polluting corporations – namely the operators of coal-fired power stations and other heavy industry. It is not a cost burden that must be borne by the Australian people. On the other hand, the health cost of air pollution to the community is a cost burden borne by the Australian public.

The cost-benefit analysis prepared for the NEPM variation is an exercise in measuring ‘societal costs and benefits’. However, installing pollution controls is not a societal cost. It is a corporate cost. Communities do not pay for pollution control. Polluters pay for pollution control. Yet the benefits of improved community health are, in fact, a societal benefit.

The shortcoming of the cost-benefit analysis is emphasised by the “number of benefits that could not be reliably quantified”. This is despite the acknowledgment of research by Heo et al. (2016) which estimates a range of marginal social costs of US\$14,000–24,000 per tonne of NO<sub>2</sub> and SO<sub>2</sub>. Such values would result in very large societal benefits from pollution control.

We believe the cost-benefit analysis has major flaws and should not be relied on by Ministers in making a decision on the NEPM Variation.

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<sup>18</sup> 1225 road deaths to December 2017. See: [https://bitre.gov.au/publications/ongoing/rda/files/RDA\\_Dec\\_2017.pdf](https://bitre.gov.au/publications/ongoing/rda/files/RDA_Dec_2017.pdf).

<sup>19</sup> <http://www.abc.net.au/news/2017-01-02/road-crashes-costing-australian-economy-billions/8143886>.

**Recommendation 6: Remove the exemption for small population centres from monitoring and reporting obligations and enforce requirements for monitoring in communities at risk of pollution.**

The 2011 NEPM review states that the objective of the NEPM should be to “minimise the risk from adverse health impacts from exposure to air pollution for all people wherever they may live”. However, the NEPM currently exempts smaller population centres from monitoring and reporting obligations. Air pollution only needs to be monitored for population centres with more than 25,000 people. Monitoring on the basis of population size alone is fundamentally at odds with this core objective, and constitutes a clear-cut example of environmental injustice. For example, communities in the Upper Hunter have been artificially removed from the scope of the NEPM, despite experiencing some of the highest levels of pollution in Australia.

Australians who live, work and spend time breathing in peak locations with smaller populations are entitled to equivalent protection under the NEPM. There must be stronger requirements for monitoring and reporting in small towns or suburbs where there is reason to believe that standards are being exceeded or public health is threatened by air pollution. The NEPM Variation should remove the threshold population requirement entirely and require monitoring and reporting for NO<sub>2</sub>, SO<sub>2</sub> and O<sub>3</sub> in communities known or expected to experience high pollution levels - this is the only way to protect all people, wherever they live.

Giving “greater flexibility to jurisdictions” regarding their monitoring networks has resulted in no publicly available air pollution monitoring data in large regions that experience elevated air pollution concentrations, such as in the coalfields of central Queensland, or at Lake Macquarie and the Central Coast. The NEPM should provide clear direction to states on the matter of where to monitor rather than leaving this to the discretion of state regulators. An exposure reduction and continuous improvement model is recommended for all exposed populations.

**Recommendation 7: Adopt an improved protocol for community involvement in the development, implementation and review of air pollution standards.**

For too long, community members and groups have felt ignored in the policy process for developing, implementing and reviewing air pollution standards. Industry groups have been much more actively engaged in this process of setting national air pollution standards than non-government groups and individuals. A protocol for community involvement should be negotiated and adopted, along the lines of the

protocol that guided community involvement in the initial development of the NEPMs for Ambient Air, Contaminated Land, and the National Pollutant Inventory.

**Recommendation 8: All State, Territory and Commonwealth Governments must ensure the NEPC adopts this variation as a priority – by the end of 2019.**

It has been eight years since the NEPC recommended strengthening the purpose of the NEPM to focus on minimising risk for all people wherever they may live and more than three years since the Victorian Government initiated the review of standards for NO<sub>2</sub>, SO<sub>2</sub> and O<sub>3</sub>. The variation must be finalised without delay. All State, Territory and Commonwealth Governments must ensure the NEPC adopts this variation as a priority – by the end of 2019.

**Recommendation 9: All State, Territory and Commonwealth Government regulators must ensure compliance from the commencement of the NEPM in 2020.**

State regulators must ensure compliance from the commencement of the NEPM in 2020.

**Recommendation 10: Conduct a national review of the NEPM variation in 2025.**

We recommend conducting a national review of the NEPM variation in 2025 to formally assess the merits of shifting to the stricter standards, consistent with an exposure reduction framework, and to respond to instances of non-compliance.

**Recommendation 11: The NEPC must commit to new research and policy development for the future to adequately quantify the health impacts of air pollution and the benefits accruing from controlling air pollution.**

Given the NEPM Impact Statement's omission of many health indicators from the cost-benefit analysis due to limited data, it is clear further research is required to adequately quantify the health impacts of air pollution and the benefits accruing from controlling air pollution. This would include using detailed atmospheric modelling to estimate ground level air pollution across all populated areas of Australia. It is also important to quantify other non-health indicators such as reduced labour productivity, the co-benefits of reducing other pollutants, and reduction in secondary PM formation. The US EPA included an assessment of many of these factors in its assessment of the costs and benefits of the Clean Air Act.

## **Recommendation 12: Replace Australia’s broken air pollution regulatory scheme with a national Clean Air Act.**

As the NEPM Impact Statement suggests, “current policy interventions are not limiting emissions and concentrations in line with policy objectives”. The Impact Statement considers five approaches to regulating pollution, of which the NEPM standards variation is just one. We support consideration of Commonwealth legislation. A stronger role for the Commonwealth, including the collection, analysis and reporting of air pollution nationally, is dismissed as an option (3.4.2) as it could potentially result in duplication and would require additional resources. However, given the failure to limit emissions and concentrations in line with policy objectives after 21 years of the NEPM, and the failure to provide communities with access to data and the right to know what they’re breathing, we recommend a much stronger role for the Commonwealth.

A strong and proactive approach to air pollution prevention requires robust and well-resourced institutional arrangements capable of decisive policy intervention. Air pollution standards must include compliance obligations and enforcement mechanisms, including penalties that create a sufficient deterrent to prevent non-compliance. A good example of this comes from the USEPA and the US Clean Air Act, where US states that fail to ensure compliance with national standards are subject to significant and escalating penalties that compel regulators to implement effective pollution control. This is critical to provide affected members of the community a recourse for action when adversely affected by air pollution. By contrast, the NSW Government is taking no action to control air pollution in Sydney or the Hunter Valley, where the current air pollution standards are exceeded frequently.

The shortcomings of a state-by-state approach are illustrated powerfully by the fact that the Impact Statement could only rely on pollution inventories for two states, Victoria and New South Wales, and that both these inventories are more than a decade old. The Queensland Government was unable to provide an emissions inventory or air dispersion modelling to inform this NEPM variation. The Commonwealth could also publish an annual report on compliance in all jurisdictions early each year. Many states either publish years late or not at all.

The PM10 standard that was varied four years ago in December 2015 is not being met in a number of air sheds, including the Hunter Valley. The NEPM does not provide a sufficiently robust regulatory framework to ensure state governments monitor and enforce compliance with current air pollution standards, much

less the stronger standards that will apply from 2025. In short, this NEPM is failing to achieve the purpose of NEPMs: to ensure that people enjoy the benefit of equivalent protection from pollution, wherever they live in Australia.

Indeed, it has been eight years since the NEPC recommended strengthening the purpose of the NEPM to focus on minimising risk for all people wherever they may live, and this still has not happened.

Put simply, the implementation and enforcement of Australia's air pollution standards must not be left up to a patchy and unenforceable regime. Australia is not using its federated system to its best advantage for air pollution prevention and management. A national system that takes advantage of the strengths of the Commonwealth, as well as the strengths of the States and Territories could achieve fairer, more effective air pollution regulation across Australia.

We need a national set of laws to control air pollution and a national regulatory body to enforce and monitor compliance. The Commonwealth Government should take responsibility for achieving clean air across Australia by implementing a national scheme for air pollution that the States and Territories comply with. The Commonwealth should be responsible for standard setting to ensure communities across Australia have the same strong level of protection. The States should have responsibility for on-ground implementation of air pollution laws and be required to implement the national laws in each jurisdiction in a way that works best in that jurisdiction, provided they are meeting national standards and requirements.