Environment Protection Authority  
PO Box A290  
Sydney South NSW 1232  

By email: Air.Policy@epa.nsw.gov.au

20 January 2017

NCC Submission on Clean Air for NSW Consultation Paper

Dear Sir/Madam,

The Nature Conservation Council of NSW (NCC) is the peak environment organisation for New South Wales, representing over 150 member societies across the state. Together we are committed to protecting and conserving the wildlife, landscapes and natural resources of NSW.

We welcome the opportunity to comment on the Clean Air for NSW Consultation Paper.

The consultation paper recognises the negative impact that air pollution is having on the quality of life of thousands of people in NSW, and the current trends in air pollution, which are rising for many key pollutants.

We are concerned that the consultation paper lacks measures to control major sources of air pollution, and that air pollution controls in NSW lags far behind international best practice. There is a huge opportunity to improve the quality of the air we breathe and yet the consultation paper fails address many urgent issues.

Air pollution reduces quality of life in NSW and impacts on our environment, we implore the NSW government to step up efforts to reduce pollution to the lowest levels achievable.

Yours sincerely,

Kate Smolski  
Chief Executive Officer
NCC SUBMISSION CLEAN AIR FOR NSW CONSULTATION PAPER

In addition to the issues raised below, recent submissions also provide further information into various elements of the Clean Air Consultation Paper. Please see Appendix A. for NCC’s submission into the proposed variation to the National Environment Protection Measure (Ambient Air Quality), and Appendix B. for NCC’s joint submission into the National Clean Air Agreement Discussion Paper.

1. NSW must seek to reduce air pollution levels to the lowest possible.

There is no threshold below which particle pollution has no adverse impact. There are significant health benefits in reducing pollution concentrations to well below the national standards, all the way down towards zero. Merely committing to meet our national standards as contained in the National Environment Protection (Ambient Air Quality) Measure (Air NEPM) is not sufficient to avoid the health and environmental costs of air pollution.

An effective air pollution control strategy must be based on objectives that are measured (e.g. a 50% reduction in emissions from coal mines by 2020), actions that are monitored, and facilitate meaningful community involvement.

2. Tackle air pollution from power stations.

Our five coal-fired power stations - Bayswater, Liddell, Eraring, Vales Point and Mount Piper - emit large quantities of fine particle (PM$_{2.5}$) pollution, sulphur dioxide, oxides of nitrogen, mercury and a wide range of other toxic pollutants. Pollution from these plants compares very unfavourably to international best-available technology, as shown for Bayswater power station in Table 1.

Table 1: Bayswater power station SO2 and NOX pollution compared to international best practice

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions intensity of Bayswater power station (kg/MWh)$^1$</th>
<th>International best practice for coal-fired power stations (kg/MWh)$^2$</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO$_2$</td>
<td>4.47</td>
<td>0.06 – 0.08</td>
<td>Fifty-five times worse than best practice</td>
</tr>
<tr>
<td>NO$_x$</td>
<td>2.93</td>
<td>0.16 – 0.42</td>
<td>Seven times worse than best practice</td>
</tr>
</tbody>
</table>

We support the Clean Air Plan for Consultation goal which seeks to “minimise emissions from power stations to reduce primary and secondary particle precursors.”

$^1$ National Pollution Inventory 2014/15
In the short-term, coal-fired power stations must be required to implement best available measures to control air pollution, such as flue gas desulphurisation, catalytic reduction and electrostatic precipitators. This could be achieved by setting strict emissions limits, and giving plants several years to comply, like the MATS scheme in the USA, or by increasing the load-based licencing scheme fees to levels that are reflective of the true health costs of pollution and would drive pollution reduction measures.

In the long term, i.e. by 2030, NSW Government must commit to supporting the rapid closure of these major polluters and a planned transition to 100% non-polluting renewable energy. This transition needs to be carefully managed to maximise benefits and limit negative impacts upon communities across NSW.

We welcome the EPA’s one-year plan to study international best practice and make recommendations to Government regarding how to reduce air pollution from coal-fired power stations, and request that the EPA make the results of this work public once complete.

3. Control air pollution from coal mines.

New and expanded coal mines should not be approved where pollution levels exceed the national standards. Existing coal mines need to be much more actively regulated to control coal dust.

In the Hunter and other coal-mining regions, open cut coal mines are responsible for about 90% of coarse particle pollution. These emissions have doubled in the last five years and trebled in the last ten³, and PM₁₀ concentrations regularly exceed the national standard. This unfair health burden is shouldered by coalfield communities, not the mining companies. But the Consultation Paper proposes no significant new measures to tackle these emissions. The Dust Stop program which aims to reduce coal dust by 80% isn’t working.

4. Cover coal wagons.

Each year, millions of uncovered coal wagons pass through residential areas throughout NSW. Numerous independent studies, including an inquiry conducted by the NSW Chief Scientist, have demonstrated that particle concentrations increase significantly as these wagons pass. The coal industry defines covering wagons as best practice, and studies confirm this can reduce coal dust emissions by 99%.

The NSW Government should require all coal wagons to be covered, for both new and existing mines.

5. Scrap dirty wood heaters.

Wood heaters are responsible for 47% of Sydney’s fine particle (PM₂.₅) pollution each year; up to 75% in July⁴. This is a very high priority for controlling air pollution and one of the most cost effective options. But the Consultation Paper proposes no decisive actions to tackle this major source of PM₂.₅ and passes the responsibility to local government. Local Government cannot control wood heaters. A modest incentive could support residents to replace their polluting wood heaters with clean, efficient heaters. Incentives for home insulation would reduce the need for heating.

³ National Pollutant Inventory, 2011-2015
⁴ Consultation Paper, p.35
6. Polluters must pay.

Air pollution costs the people of NSW dearly, with the most polluted communities carrying an unfair share of this burden. By requiring polluters to pay, the NSW Government can create incentives for cleaner production. One option would be to significantly increase the load-based licencing fees paid by major polluters\(^5\). An analysis by Doctors for the Environment Australia recommends increasing fees to 50 times the current rate, so that polluters pay for their health impacts. Load-based licencing fees should also be paid by coal mining companies who are currently exempt, as was recommended by by a 2011 review commissioned by OEH\(^6\).

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APPENDIX A: Submission into Proposed variation to the National Environment Protection Measure (Ambient Air Quality)

The Executive Officer
National Environment Protection Council
Department of the Environment
GPO Box 787
CANBERRA ACT 2601

By email: NEPC@environment.gov.au

10 October 2014

Submission on the proposed variation to the National Environment Protection Measure (Ambient Air Quality)

Dear Sir/Madam,

The Nature Conservation Council of NSW (NCC) is the peak environment organisation for New South Wales, representing 130 member societies across the state. Together we are committed to protecting and conserving the wildlife, landscapes and natural resources of NSW.

We welcome the opportunity to comment on the proposed variation to the National Environment Protection Measure (Ambient Air Quality) (NEPM). Our key comments are outlined below.

1. The annual average standard of 6 micrograms per cubic metre (µg/m³) for PM_{2.5} should be a compliance standard rather than an advisory standard. Science tells us that there is no safe level of PM_{2.5} so the lowest possible level should be chosen as the standard. This should be combined with a mechanism to drive exposure even lower. As noted in the impact statement “The greatest proportion (>99%) of the health costs accrue from avoiding premature deaths due to long-term exposure to PM_{2.5}” (p.ix). Achieving 6µg/m³ would reduce the estimated 1,590 deaths in Sydney, Melbourne, Brisbane and Perth attributed to PM_{2.5} pollution by 34%, avoiding about 700 premature deaths.

2. The 24-hour PM_{2.5} standard of 20µg/m³ should be a compliance standard rather than an advisory standard. This is long overdue. The levels of 25µg/m³ or 20µg/m³ are proposed in the Impact Statement, although the draft NEPM variation itself lists 25µg/m³. The stricter standard of 20µg/m³ should be adopted. The impact statement shows that 20µg/m³ is already being achieved at most monitoring sites on most days and so is achievable (p.70). Reducing the peak exposures would have health benefits of fewer hospitalisations and fewer exacerbations of respiratory symptoms.

3. Establish an annual standard for PM_{10} of 20 µg/m³. There is good scientific argument for an annual PM_{10} standard on the basis of exacerbation of lung disease, reduction in lung function in both adults and children, and development of lung cancer from chronic exposure. There is no evidence that these risks are removed by controlling annual average PM_{2.5}. WHO guidelines are for a 20µg/m³ annual mean.

4. The 24-hour standard for PM_{10} should be reduced from 50 to 40µg/m³. The impact statement notes that on average the current standard of 50µg/m3 is being achieved (p.69) and that a tightening of the standard could encourage future improvements in air quality (p.70).

5. Timeline for implementation: The draft NEPM variation (Part 2 Section 6) suggests allowing up to ten years for jurisdictions to comply with the standards. This ‘moratorium’ is unacceptable. State regulators should do everything within their powers to ensure compliance from the commencement of the NEPM.
6. The NEPM should aim to ensure the cleanest air possible: There is no threshold below which particle pollution has no adverse impact. Health experts are universally critical of the practice of managing ‘up to’ the national standards. The objective of the proposed NEPM is “ambient air quality that allows for the adequate protection of human health and well-being.” The expression “adequate” is open to interpretation and does not create a basis for a strong regulatory framework. 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.”

7. An exposure reduction framework is needed: An exposure reduction framework is discussed in the impact statement but it does not appear in the draft NEPM variation itself. As the science is well established that current exposure is causing health problems, long-term targets to progressively decrease exposure should be adopted.

8. Community involvement: For too long, community members and groups have been ignored in the policy process for developing, implementing and reviewing air pollution standards. Industry groups have been much more actively engaged 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 Quality and the National Pollutant Inventory.

9. Access to comprehensive and timely monitoring data: The NEPM should require state regulators (EPAs) to ensure easy and timely access to monitoring data including data from both EPA and industry monitoring. In the absence of meaningful enforcement action by state regulators, community access to data is often the main driver to reduce pollution. In many parts of Australia, monitoring data is difficult, expensive or impossible to access. The simplest arrangement would be the creation of one website where community members could access monitoring data from all states and regions in a standardised format. The NSW EPA air quality monitoring website is an excellent model for this. The monitoring plans and annual reports referred to in the draft NEPM variation (pages 8, 10) should also be publicly available on a coordinated national webpage.

10. Protecting human health in small communities: The NEPM currently exempts smaller population centres from monitoring and reporting obligations - levels only need to be monitored for population centres over 25,000 people. Monitoring by population size alone is not adequate protection. This is particularly important for people whose health is threatened by industrial activity setting up close to established residential areas of smaller populations. There should be stronger requirements for monitoring in small towns or suburbs where there is reason to believe that standards are being exceeded. The NEPM should require monitoring and reporting for both PM2.5 and PM10 in population centres of 5,000 or more, particularly communities known or expected to experience high pollution levels.

The NEPM should also provide clear direction to States on the matter of where to monitor rather than leaving this to the discretion of state regulators (e.g. the draft NEPM variation states “additional performance monitoring stations may be needed” (p.9) but leaves it up each jurisdiction to determine whether to do so). An exposure reduction and continuous improvement model is recommended for all exposed populations.

11. Australia’s federated policy processes: Institutional arrangements for developing, implementing and monitoring Australia’s air pollution control laws are failing. The Council of Australian Government’s Standing Committee on Environment and Water (SCEW) was disbanded in December 2013 and no

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alternative arrangement has been put in place. The National Environment Protection Council is under-
resourced to the extent that it has inadequate capacity to manage this consultation. One consequence of
these shortcomings is that this NEPM review has been stalled for years and the national Clean Air Action
Plan (or Agreement) has been postponed despite its agreed urgency. A strong and proactive approach to
air pollution prevention requires robust and well-resourced institutional arrangements capable of decisive
policy intervention.

12. The variation must be finalised without delay. Government representatives have indicated that the
aspirational timeframe to make the variation is mid-2015, or longer. Having considered standards for
PM$_{2.5}$ for over a decade, there is no reason for the National Environment Protection Council to continue to
delay. All State, Territory and Commonwealth Governments must ensure the NEPC adopts this variation
as a priority – by the end of 2014, to be implemented from 2015.

13. New research and policy development is needed for the future: There is growing concern
internationally about the health impacts of ultrafine particles. The 2011 review of the NEPM noted that
there was not enough data to make a standard for ultrafine particles. The National Environment
Protection Council should investigate including a reporting standard for ultrafine particles so we can
better understand their impact on health. Similarly an 8-hour standard for all particulates should be
considered as a new policy measure to better capture the significant short-term impacts that can occur.

14. The proposed variation is only part of the solution. National air pollution prevention laws are
needed. Australia’s current system of policies and laws to prevent and control air pollution, including the
Ambient Air NEPM, are failing. The national air pollution standards adopted in 1998 are breached
regularly, particularly in coal-affected communities. States currently do not take adequate steps to ensure
the standards will be met through their laws, policies and licencing arrangements. A stronger set of
national policies and laws are required to protect community health. The NEPM variation is a welcome but
inadequate step toward effective air pollution laws. Commonwealth leadership to develop national air
pollution prevention laws is needed as a priority.

Should you have any questions or require any additional information, please do not hesitate to contact
Cerin Loane, Policy and Research Coordinator, on (02) 9516 1488 or cloane@nature.org.au.

Yours sincerely,

Kate Smolski
Chief Executive Officer
Submission

in response to

National Clean Air Agreement Discussion Paper

prepared by

Environmental Justice Australia

and

Nature Conservation Council of NSW

16 April 2015
For further information on this submission, please contact:

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Submitted to:

Department of the Environment, Canberra

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INTRODUCTION

Thank you for the opportunity to comment on the proposal National Clean Air Agreement. Environmental Justice Australia (formerly the Environment Defenders Office Victoria) has been providing advice to communities on air pollution for 20 years. Last year we released a report analysing the problems with air pollution regulation in Australia and recommending solutions - *Clearing the Air: Why Australia Urgently Needs Effective Air Pollution Laws.*\(^1\) We also organised the National Air Pollution Summit in conjunction with the Nature Conservation Council of NSW and Doctors for the Environment Australia with 60 attendees including health, law and air pollution experts, peak conservation organisations and communities affected by air pollution. In April this year we publicly released the results of our extensive analysis of key air pollution data from the last five years of the National Pollutant Inventory, which showed significant increases in some sources of pollution, particularly from coal mines.

The Nature Conservation Council of NSW (NCC) is the peak environment organisation for New South Wales, representing 130 member societies across the state. Together we are committed to protecting and conserving the wildlife, landscapes and natural resources of NSW.

Over 3000 Australians a year die from air pollution-related illnesses\(^2\), and the health costs of death and disease runs into billions of dollars every year.\(^3\) Despite this, the ongoing lack of action from State governments indicates that they believe that air pollution is not a problem and the Federal Government appears reluctant to do more than give general encouragement to the States to take action. All governments must recognise that air pollution is a real and growing problem in Australia, and the delays of the last two decades of air pollution regulation and treat this issue with the priority it deserves. In particular, governments should begin the process to move towards a new system of national laws that effectively regulates air pollution for the health of all Australians and the environment.

We welcome the commitment of State, Territory and Federal Governments to creating a National Clean Air Agreement ("Agreement") and hope it signals a shift towards real regulatory action on air pollution.

**Current state of air pollution regulation in Australia**

It is well accepted that air pollution regulation is failing to protect the health of Australian communities. The 2011 review of the Ambient Air Quality NEPM ("AAQNEM") conducted by the National Environment Protection Council ("NEPC") found that ‘there are significant health effects at current levels of air pollution in Australian cities’ and that the current standards ‘are not meeting the requirement for adequate protection of human health’.\(^4\)

The economic reasons for reducing air pollution levels are clear and undisputable, as recognised in the *Economic Analysis to inform the National Plan for Clean Air (Particles)*\(^5\) ("Economic Analysis"). The economic benefit of implementing national pollution abatement measures was estimated to be $8.8 billion. A similar scale of economic benefit is described in numerous Australian and international analysis of

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\(^3\) See for example Australian Medical Association submission to the 2013 Senate Inquiry ‘Health Impacts of Air Pollution’


air pollution reduction. In those countries where air pollution has been reduced (temporarily or permanently) the economic (i.e. health) benefits have been immediate.\(^6\) Therefore we can be confident that a reduction in Australian pollution levels would have the same impact.

Continued vigilance is needed in reducing Australian air pollution levels. As the Impact Statement for the 2014 AAQ NEPM Variation noted - “Where PM concentrations have historically been below air quality standards/goals, there is no guarantee that this will continue in the future, especially given that the projections in state inventories show that PM\(_{10}\) and PM\(_{2.5}\) emissions are likely to increase under a BAU scenario, in spite of controls on emissions from several sectors”.\(^7\)

The current system of non-binding national standards via NEPMs, and inadequate State regulation is clearly no longer adequate to deal with the problems we are facing.

**SUMMARY OF RECOMMENDATIONS**

The current State laws and national standards for air pollution are not adequate and are failing to protect the health of Australians. Federal and State Governments must make human health a priority and commit to immediate measures that will reduce pollution levels, reduce the exposure of communities to pollution, and significantly reduce the health burden that air pollution places on the Australian community. The National Clean Air Agreement should identify measures that can be implemented immediately to reduce health impacts on Australians, and begin the process of moving towards national clean air laws.

- The Agreement must include a logical and justifiable framework for prioritising action on air pollution reduction, that is commensurate with the nature of the problem and its impacts on human and environmental health.
- The goal of the Agreement should be changed to: “The continuous reduction in air pollution and exposure for all Australians in order to achieve health, environmental or economic benefits”.
- The Agreement principles must prioritise action on human health rather than considerations about the burden on polluters. Priority should be given to the pollutants and pollution sources that create the greatest health impacts; and pollution sources that create a disproportionate and unfair burden on certain communities.
- The facilitating framework and principles for the Agreement must be re-written to require governments to give priority to pollution sources which are the greatest contributor to pollution levels and/or have significant impacts on human or environmental health.
- The facilitating framework should also make it clear that the Agreement can include actions to implement national regulatory approaches, and improve institutional arrangements or regulation implementation at the State or national level such as ways to improve enforcement of State air pollution laws.
- Cost benefit analysis should not be used to delay action on priority issues, but should be used as a tool to determine which pollution control measures will provide the greatest reduction in pollution for the money spent.
- Governments must include clear measures in the work plan before the Agreement is finalised that will result in significant reductions in pollution levels in Australia to protect human health.
- Governments must end delays of the measures already announced and implement them as a priority.
- Measures for non-road diesel engines, wood smoke and shipping should be conducted at a national level.

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\(^6\) Barnett, A. Its safe to say there is no safe level of air pollution, *Australian and New Zealand Journal of Public Health* 2014 Vol 38 no 5.

\(^7\) Impact Statement p.53
• Governments should recognise the inherent problems in our current approach to air pollution regulation, including the NEPMs, and begin to move towards a system of national clean air laws.
• States should commit to amending their regulation so that in populated areas where air quality exceeds or is expected to exceed NEPM ambient air quality standards, further development that will add to those pollution levels cannot be approved.
• The Agreement should include a commitment for the NPI to be strengthened and appropriately resourced to ensure all significant sources are reported including coal stockpiles, coal transport and wood heaters.
• NPI data must be available in such a way that it can be properly utilised and understood by the community, as was its original intention.
• The Agreement should include a commitment by the Commonwealth to publish an annual report that analyses trends apparent from detailed analysis of each year’s NPI in light of previous years, highlighting industries and facilities that have significantly increased or reduced emissions, and substances that have been emitted in significantly greater or lesser mass.
• The Agreement should commit to implementation of the recommendations from the Ambient Air Quality NEPM Review and the Senate Inquiry ’Impacts on health of air quality in Australia’.
• States should commit to ensure free, timely and coordinated access to ambient air quality monitoring throughout Australia. Data should be current (real time or as close to it as possible). The Commonwealth should be responsible for establishing and maintaining the web interface for this air pollution monitoring website.
• Appropriate funding and resources must be committed to tackling air pollution by all Australian governments.
• All governments must give air pollution the priority it deserves, end ongoing delays and commit to measures to reduce the most significant sources of pollution as a priority as part of this Agreement.

OVERARCHING COMMENTS

While we support the concept of a National Clean Air Agreement, we are concerned that the current proposal for the Agreement will do little to address the issues identified above, in particular the health burden on Australians. This is for two reasons:

1) The proposed Agreement does not contain a framework that will result in measures being adopted that will address the most problematic sources of pollution in Australia. This is discussed in detail below.

2) At present there appears to be very little commitment from Governments to take regulatory steps to tackle air pollution. The work plan for the discussion paper for the Agreement confirms this, with no new significant measures identified. At present the Agreement largely re-states commitments that have been announced many times already and/or have been underway for some time. We understand that the Federal Government is largely leaving it to State Governments to propose measures to be included in this Agreement, and that State Governments have not been particularly forthcoming in proposing measures. It is the responsibility of ALL governments to address air pollution. However if States are unwilling to take on this task the Federal Government should compel it. A weak Agreement is further evidence for the need for national clean air laws which will require concerted national action on air pollution.

1. DO YOU AGREE WITH THE PROPOSED GOAL, PURPOSE, PRINCIPLES AND SCOPE AS A BASIS FOR THE NATIONAL CLEAN AIR AGREEMENT?

The current proposal for the Agreement will do little to address the issues identified above, in particular the health burden on Australians. The facilitating framework provides no basis for prioritising action on air
pollution, and will be of no assistance to Governments in deciding what action and measures should be adopted under the Agreement. Suggestions in this regard are made below.

**Recommendation 1:**

The Agreement must include a logical and justifiable framework for prioritising action on air pollution reduction, that is commensurate with the nature of the problem and its impacts on human and environmental health.

**Goal of the National Clean Air Agreement**

The proposed goal of the Agreement is “The sustained reduction in air pollution and exposure for all Australians, with associated health, environmental and economic benefits.”

This should be changed to: “The continuous reduction in air pollution and exposure for all Australians in order to achieve health, environmental or economic benefits”.

’Sustained reduction’ would be satisfied if pollution levels were only reduced slightly and then maintained. As there is not safe level of exposure for many pollutants including PM2.5, the aim should be a continuous reduction in pollution. In addition it is important that the wording of the goal is not used as an argument against measures that have either environmental, health or economic benefits (as opposed to needing to fulfil all three). If measures to reduce pollution fulfil any one of those objectives they should be the capable of being included in the Agreement.

**Recommendation 2:**

The goal of the Agreement should be changed to: “The continuous reduction in air pollution and exposure for all Australians in order to achieve health, environmental or economic benefits”.

**’Regulatory burden’ and prioritisation of polluter concerns**

At present the principles of the Agreement have a significant focus on ‘reducing regulatory burden’, ‘allowing for sufficient lead in times’ and ‘minimising disruptions that may result from policy changes’. Further the discussion paper states that regulation should be a ‘last resort’. It is inappropriate for these considerations and messaging to dominate the Agreement.

Regulation is particularly important in controlling air pollution. Individuals cannot readily control the extent to which they are exposed to harmful air-borne pollutants. They rely on governments to implement and enforce good regulation to protect their health. Polluters will pollute to the maximum amount allowed by law (and often more when enforcement is lax as it is with air pollution). Although regulation that is ineffective or completely unnecessary is not desirable in any field, this should not be confused with regulation that is merely undesirable to industry or imposes costs on industry. As the OECD has found, despite environmental regulation increasing significantly in OECD countries over the last 20 years, productivity has not been impacted. Instead they found that environmental regulation may translate

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8 Working towards a National Clean Air Agreement Discussion paper March 2015, p12
9 Barnett, A. Its safe to say there is no safe level of air pollution, Australian and New Zealand Journal of Public Health 2014 Vol 38 no 5
10 Discussion paper p14
11 Discussion paper p14
into a permanent increase in productivity levels in some industries. They encouraged countries to adopt stringent environmental regulation, finding that "stringent environmental policies should not be expected to have detrimental effects on productivity, in particular if policies are well-designed." Many of the popular arguments about the unnecessary regulatory burden from environmental laws are spurious and the Federal Government's attack on environmental regulation is misguided. Environmental regulation is a useful and beneficial tool that governments should use to manage polluter behaviour for the benefit of all. Rather than regulation being labelled a "last resort", it should be readily considered as one of the most appropriate and efficient ways to reduce pollution levels and, as the OECD notes, drive innovation.

With respect to the principles of 'allowing for sufficient lead in times' and 'minimising disruptions that may result from policy changes' these should not be core principles that trump the need for immediate action to reduce pollution levels to protect human health. As noted above, in those countries where air pollution has been reduced - temporarily or permanently - the health (and economic) benefits have been immediate. Therefore instead, the principles should encourage rapid action to bring down those costs as soon as possible. Preventing unnecessary death and disease from air pollution should be more important that minimising disruption to polluters.

**Human health should be prioritised**

The principles should instead require governments to prioritise actions that protect human health. As is clear from the significant health costs associated with air pollution, prioritising human health will also have significant economic (and environmental) benefits.

**Environmental Justice Considerations**

Although air quality is adequate for many Australians, there are numerous communities for whom air pollution is very bad, and in some cases worsening, and these people unfairly bear the impacts of Australia's polluting activities.

Two recent studies have shown that particular groups suffer significant environmental injustice from industrial air pollution in Australia. Communities within one kilometre of industrial pollution sites are characterised by social and economic disadvantage. A study published in 2014 stated:

> This national level quantitative assessment of environmental justice has found significant and systemic inequities in the social distribution of industrial air pollution in Australia. Regardless of how air pollution was measured; facility presence, emission volume, or toxicity, our analysis

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15 Barnett, A. It's safe to say there is no safe level of air pollution, *Australian and New Zealand Journal of Public Health* 2014 Vol 38 no 5.
indicated a consistent and disproportionate impact on indigenous and socially disadvantaged communities.\textsuperscript{18}

It is unjust that certain communities bear the impacts of pollution significantly more than others. Current air pollution laws do not adequately protect these communities. Although it is important to prioritise measures that will create health benefits for the greatest number of people, it is also important to target the disproportionate health impacts placed on some communities and address this environmental injustice.

In determining which human health impacts to prioritise, the principles should require:

\begin{itemize}
  \item[a)] Prioritisation of the pollutants and pollution sources that create the greatest health impacts; and
  \item[b)] Implementation of ‘environmental justice’ principles whereby pollution sources that create disproportionate health impacts on certain communities, resulting in those communities bearing an unfair burden from pollution, should have targeted action, regardless of whether the number of people affected is at a smaller scale (e.g. lead-affected communities)
\end{itemize}

\begin{quote}
\begin{center}
\textbf{Recommendation 3:}
\end{center}

The Agreement principles must prioritise action on human health rather than considerations about the burden on polluters. Priority should be given to the pollutants and pollution sources that create the greatest health impacts; and pollution sources that create a disproportionate unfair burden on certain communities.
\end{quote}

\begin{quote}
\begin{center}
\textbf{Setting priorities for action.}
\end{center}

The priorities for pollution control strategies should reflect the relative contribution of various pollution sources, and the health impacts of those sources. The Agreement’s facilitating framework and principles should require governments to prioritise those pollution sources which are the greatest contributor to pollution levels (particularly those which create environmental harm) and/or have significant impacts on human health.

For example, the discussion paper notes that particle pollution (PM) is a significant problem. Measures to reduce PM\textsubscript{2.5} emissions are especially important. A 2013 Senate Inquiry heard evidence that PM\textsubscript{2.5} emissions are “the most health-hazardous air pollutant, responsible for 10 to 20 times as many premature deaths as the next worst pollutant, ozone”.\textsuperscript{19}

However the discussion paper does not propose any framework or requirement to identify the most significant sources or those that have the most significant impacts on human health. This will allow governments to include a grab bag of measures in the work plan that are politically acceptable but that will not necessarily result in any significant impact on human or environmental health. This is clearly evident from the current work plan which proposes to prioritise lawnmowers and outboard motors for example, but contains no specific measures to tackle PM emissions from many of the biggest sources of pollution, that have the biggest impact on human health. For example, coal-fired power stations are responsible for 31\% of total national PM\textsubscript{2.5} emissions and coal mines for 23\%. Coal mines are responsible for 46\% of Australia’s total PM\textsubscript{10} emissions - 30 times as much as all of Australia’s motor vehicles. And yet there is no mention of coal mines or coal-fired power stations in the Agreement.
\end{quote}

\textsuperscript{18} Chakaraborty and Green, \textit{Australia’s first national level quantitative environmental justice assessment of industrial air pollution}, Environmental Research Letters 9 (2014) 044010.

The facilitating framework should also make it clear that the Agreement can include actions to implement national regulatory approaches, and improve institutional arrangements or regulation implementation at the State or national level such as ways to improve enforcement of State air pollution laws.

**Recommendation 4:**

The facilitating framework and principles for the Agreement must be re-written to require governments to give priority to pollution sources which are the greatest contributor to pollution levels and/or have significant impacts on human or environmental health.

The facilitating framework should also make it clear that the Agreement can include actions to implement national regulatory approaches, and improve institutional arrangements or regulation implementation at the State or national level such as ways to improve enforcement of State air pollution laws.

**Cost-benefit analysis.**

The facilitating framework for the National Clean Air Agreement should be based on a rigorous and transparent assessment of the costs of pollution and the benefits of pollution reduction. Pollution sources, substances and problems should be assessed according to their social, environmental and economic costs, and potential solutions and strategies should similarly be assessed according to their benefits. However cost benefit analysis should not be used to delay action on reducing the pollutants or pollution sources that have been prioritised as requiring action, particularly for human health. Rather, once those priority pollutants or pollution sources have been identified, it should be used to assess which pollution control measures will produce the most benefit for the investment.

For example, Greenhouse gas abatement measures are often assessed using the ‘McKinsey cost curve’.

The benefit of this systematic approach is that it readily differentiates between pollution control approaches that will have greatest ‘bang for the buck’ and those that - while popular or politically acceptable - will have minimal benefit in reducing pollution levels.

**Recommendation 5:**

Cost benefit analysis should not be used to delay action on priority issues, but should be used as a tool to determine which pollution control measures will provide the greatest reduction in pollution for the money spent.

**WHICH HIGH PRIORITY AIR QUALITY ISSUES SHOULD BE ADDRESSED THROUGH THE AGREEMENT?**

**Measures to be included in the work plan**

As noted above, the Agreement should prioritise actions that will address the biggest sources of pollution and/or the sources that are creating the greatest environmental and human health impacts. It should also prioritise institutional or regulatory reform that will result in air pollution regulation being more effectively implemented such as proper enforcement. In light of this, the proposed work plan needs to be significantly improved. The work plan currently includes measures that have already been announced and/or are underway, and has not been developed with any regard to what measures need to be prioritised to reduce Australia’s pollution levels to protect human and environmental health. Australian

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governments must no longer ignore the most significant sources of pollution, and those which are having the biggest impact on human health.

Governments must include clear measures in the work plan before the Agreement is finalised that will result in significant reductions in pollution levels in Australia to protect human health.

Problems with the current work plan

Most of the measures in the work plan have been discussed and delayed for years. The community is fed up with the same measures being announced year after year, followed by inability of governments to agree on and implement measures. For example, despite the substantial benefits of reducing wood smoke (estimated health costs are $24 billion), and the readily available solutions, this major source of harmful pollution has still not been addressed. Governments must end the delay, deal with those issues as quickly as possible and focus attention on other sources of pollution that are the most significant.

Recommendation 6:

Governments must include clear measures in the work plan before the Agreement is finalised that will result in significant reductions in pollution levels in Australia to protect human health.

Recommendation 7:

Governments must end delays of the measures already announced and implement them as a priority.

Problems with the current federated approach

The Discussion Paper notes\(^\text{21}\) that states and territories have primary responsibility for environmental management and proposes no significant measures to strengthen nation-wide strategies. At present, Australian state and territory governments are failing to control air pollution.

For example, the discussion paper proposes to leave each jurisdiction to deal with emissions from non-road diesel engines, wood smoke and shipping. This approach has already failed for decades and a strong national approach is necessary. Most companies contributing significantly to these emissions operate nationally, so a consistent national approach is necessary.

Current non-binding national air pollution measures are not assisting in reducing pollution levels. The National Environmental Protection (National Pollutant Inventory) Measure ("NPI") ensures a consistent approach to reporting toxic emissions, but does nothing to prevent emissions increasing. Likewise, the National Environment Protection (Ambient Air Quality) Measure sets nationally consistent standards for six pollutants and ensures a more or less comparable approach to monitoring air pollution concentrations in Australian cities but does nothing to ensure that polluters comply with these standards or that community members can access monitoring data. In some states (especially Western Australia) even accessing monitoring data is difficult. The existing cooperative approach of using NEPMs to develop national air pollution standards is clearly no longer working or adequate. The Federal Government must do more.

The current view of how air pollution is to be regulated in the Australian federation is not the only option. The Federal Government has the power to play a greater role in the regulation of air pollution.

Governments should recognise the inherent problems in our current approach to air pollution regulation, including the NEPMs, and begin to move towards a system of national clean air laws.

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\(^{21}\) Discussion paper p5-6
While the Australian Constitution does not contain an explicit head of power for air quality, there is no doubt that the Commonwealth has sufficient constitutional powers via its other heads of power to substantially regulate the sources of air pollution and improve ambient air quality.

A truly national system of air pollution laws would combine the strengths of the Commonwealth Government, and the strengths of State Governments, to create an integrated and effective system of national air pollution regulation. Federal laws would provide a broad framework for binding national standards and actions, which the States would then implement via their own laws and policies. In most instances States and territories would continue to have responsibility for licencing, data collection and enforcement. There would be no duplication of systems at State and Territory level.

Numerous benefits would flow to both Commonwealth and State Governments if effective national laws were in place, not least the billions of dollars saved in health costs. All governments should consider the benefits that national clean air laws would bring and begin to explore this option.

**Recommendation 8:**

Measures for non-road diesel engines, wood smoke and shipping should be conducted at a national level.

**Recommendation 9:**

Governments should recognise the inherent problems in our current approach to air pollution regulation, including the NEPMs, and begin to move towards a system of national clean air laws.

**Failure of State regulators to protect community health from cumulative impacts**

As mentioned above, in addition to including measures to address specific pollution sources, the Agreement should also include commitments to take national action to improve ineffective or inadequate State regulation where that problem exists in a number of jurisdictions.

One such regulatory failure is the ability of state governments to continue to approve developments in locations where air quality already exceeds or is expected to exceed the NEPM ambient air quality standards. For example, the air quality impact assessment for the Maules Creek mine in NSW clearly predicted that ambient particle pollution concentrations would exceed the annual and 24 hour standards with the additional emissions from the mine. The assessment states:

"The modelling indicates there are a number of residences that are predicted to experience maximum 24-hour average PM10 concentrations above the NSW Office of Environment and Heritage criterion of 50ug/m3 based on the impacts from the Project alone. Cumulative impacts were also assessed, however the analysis indicates that the residences most likely to experience cumulative 24 hour PM2.5 impacts are those that are already predicted to be impacted from the Project alone."22

The consultants further acknowledge that "there are 15 properties that are predicted to experience dust impacts on more than 25% of their land area for the maximum 24-hour average PM10 concentration (project alone) and four for the cumulative annual average PM10 concentration."23

22 PAE Holmes, 2011, Air Quality Impact Assessment: Maules Creek Coal Project, p.iii

23 PAE Holmes, 2011, Air Quality Impact Assessment: Maules Creek Coal Project, p.89
In recognition of the serious and costly health impacts on communities in these regions, regulation should prevent states from approving further development that will increase the pollution levels in those airsheds. This is clearly in the interest of the whole community and will prevent further death and disease in pollution-affected communities.

Any State reluctance to adopt such a requirement is further evidence of the need for national air pollution prevention laws to ensure all jurisdictions have air pollution regulation that protects the health of the Australian community.

**Recommendation 10:**

States should commit to amending their regulation so that populated areas where air quality exceeds or is expected to exceed NEPM ambient air quality standards, further development that will add to those pollution levels cannot be approved.

**Implementing recommendations of recent reviews**

The discussion paper makes no reference to two recent government reviews, or the recommendations they contained to strengthen Australia’s approach to pollution control. We recommend that the Agreement include a commitment to implementing the 23 recommendations of the 2011 Ambient Air Quality NEPM Review24 and the 13 recommendations of the 2013 Senate Inquiry ‘Impacts on Health of Air Quality in Australia’ which included covering coal wagons.

**Recommendation 11:**

The Agreement should include a work plan for the timely implementation of the recommendations from the Ambient Air Quality NEPM Review and the Senate Inquiry ‘Impacts on health of air quality in Australia’.

**Strengthening and enhancing the National Pollutant Inventory**

The NPI is Australia’s most comprehensive database reporting emissions of toxic substances to air, land and water. Unlike emission reports and estimates managed by states and territories, the NPI provides comparable, timely and systematically organised data for significant pollution sources.

The desired environmental outcomes of the NPI are:

(a) the maintenance and improvement of:

(i) ambient air quality; and

(ii) ambient marine, estuarine and fresh water quality;

(b) the minimisation of environmental impacts associated with hazardous wastes; and

(c) an improvement in the sustainable use of resources.25

The logic of the NPI is that companies will be motivated to reduce their emissions if they are reporting transparently to regulators, competitors and customers. In reality, the NPI is failing to achieve that objective, partly due to gaps in data, and partly due to preventable shortcomings in the NPI website.

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To achieve its purpose, the NPI requires improvements such as:

- The inclusion of particle emissions from uncovered coal stockpiles (at export terminals) and uncovered coal wagons. In communities such as Newcastle, Mackay, Brisbane and Gladstone, these are potentially significant sources of PM$_{10}$ and other toxic substances.
- The inclusion of emissions from coal mines in the Latrobe Valley and other locations where the managers of coal-fired power stations also operate mines. Currently, mine emissions are incorporated into estimates of emissions from the coal-fired power stations they fuel rather than being separately reported. The NPI cannot improve emission reduction if it conflates pollution sources.
- The inclusion of PM$_{2.5}$ emissions from wood heaters which are - in some airsheds - the dominant source of fine particles.
- The capacity to generate reports that track emissions from multiple sources over multiple years in order to identify trends over multiple years for selected substances, facilities and industries (sources), and restore the NPI mapping function.

Some relatively simple improvements to the NPI’s web interface could significantly improve its functionality and its impact. For example, the map function needs to be fixed. This important element of the NPI’s design has been broken for several years. It should be straightforward to show trends. In fact, trends are arguably the most important function of the NPI. Cleaner production is indicated by a downward trend. But to show the trends in emissions from a single facility requires multiple ‘form’ searches for each year, downloading several csv files, then opening and formatting them in Excel and creating a chart. To track the trend in emissions from multiple facilities or from all facilities associated with a specific industry requires an even more laborious process, going through these steps multiple times.

**Recommendation 12:**

The Agreement should include a commitment for the NPI to be strengthened and appropriately resourced to ensure all significant sources are reported including coal stockpiles, coal transport and wood heaters.

**Recommendation 13:**

NPI data must be available in such a way that it can be properly utilised and understood by the community, as was its original intention.

**Recommendation 14:**

The Agreement should include a commitment by the Commonwealth to publish an annual report that analyses trends apparent from detailed analysis of each year’s NPI in light of previous years, highlighting industries and facilities that have significantly increased or reduced emissions, and substances that have been emitted in significantly greater or lesser mass.

**Access to monitoring data**

Access to monitoring data is critical for all stakeholders: for community members in order to understand their exposure to harmful pollution; to regulators in order to inform assessment, licencing and enforcement actions; and to industry in order to inform management practices.

In November 2014, we attempted to collate ambient air quality monitoring data for all Australian states for 2010-2014 inclusive. We found that access to ambient air quality monitoring varies considerably from state to state and that the task of collating a full data set was almost impossible.
NSW has the best system. It’s simple to download data sets that include any or all of the pollutants that are monitored at any or all of the monitoring locations for any specified period. By contrast, it is not possible to download monitoring data from the state government agency websites that purport to serve this purpose in Western Australia, Queensland, Victoria or South Australia.

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Instead, it is necessary to make direct contact with the staff responsible for air quality management and request data. In some instances, we waited up to three months to receive any response to requests for data, and needed to follow up several times before receiving any response. When we requested data from the Western Australian Department of Environment Regulation ("DER"), we were obliged to agree to the following conditions:

_Data is chargeable at a rate of $110 per request plus $33 per parameter per site per month. Prior to any data transmission, your agreement will be sought to the total data costs. Data files will be provided as space delimited text files. The data will be provided on the basis that you and/or your company accept full responsibility for its accuracy and for the use to which it is put. The Department of Environment Regulation accepts no responsibility for the accuracy of the information or its suitability for your work. Any reference to the information in documents produced by you or your company must be accompanied by a statement of your acceptance of responsibility along the above lines. The data remains the property of the Department of Environment Regulation and must not be forwarded or sold to a third party without the written consent of the Senior Manager, Air Quality Services, Department of Environment Regulation._

We requested monitoring data for three pollutants at nine locations for five years. According to the DERs advertised rates, our data request would have cost approximately $4,500, and the department would have given no commitment to the accuracy of the data.

**Recommendation 15:**

States should commit to ensure free, timely and coordinated access to ambient air quality monitoring throughout Australia. Data should be current (real time or as close to it as possible). The Commonwealth should be responsible for establishing and maintaining the web interface for this air pollution monitoring website.

**IMPLEMENTATION ISSUES TO BE CONSIDERED FOR THE AGREEMENT**

**Uncertain funding**

Air pollution kills more Australians than motor vehicle accidents, and costs the health system billions. But the Discussion Paper is silent on how pollution control measures will be funded, beyond citing two
irrelevant programs. The $2.55 billion in Commonwealth Government support for the Emissions Reduction Fund 26 relates to CO₂ emissions and is not relevant to a strategy that aims to reduce toxic air pollution. Environment ministers must commit appropriate funds to pollution control, reflecting the significant costs of pollution on the community, and the significant economic benefit that States can achieve from reducing pollution levels via reduced health costs.

**Recommendation 16:**

Appropriate funding and resources must be committed to tackling air pollution by all Australian governments.

**Delays in addressing air pollution**

In 2011, the Council of Australian Governments (COAG) identified air pollution as a "priority issue of national significance" and agreed to develop a national action plan by the end of 2014. This Plan (now the 'National Clean Air Agreement' is now not due to be finalised until mid-2016. As mentioned previously, many of the measures identified in the Plan, or running concurrently have faced significant delays or have stalled completely. It is clear that reducing air pollution must become a higher priority for Australia’s environment ministers to receive the attention it warrants.

**Recommendation 17:**

All governments must give air pollution the priority it deserves, end ongoing delays and commit to measures to reduce the most significant sources of pollution as a priority as part of this Agreement.

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26 Discussion paper p.3