Planning for climate change: How the NSW planning system can better tackle greenhouse gas emissions

NSW EDO

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Foreword

The 2015 Paris Agreement on climate change is a historic agreement that sets an unambiguous goal to hold global warming to "well below 2°C" and to pursue efforts to limit the temperature increase to 1.5°C above preindustrial levels. Countries are to peak and then reduce emissions "as soon as possible" to "achieve a balance between anthropogenic emissions by sources and removals by sinks", which absorb greenhouse gases, in the second half of the century. Put differently, from as soon as possible after 2050, countries are to have net-zero emissions. A number of countries and now a significant number of sub-national governments have committed to this objective, including through initiatives such as the Global Climate Leadership Memorandum of Understanding.

Achieving the objectives of the Paris Agreement remains a significant challenge. However, a global transition to a low carbon future is inevitable. Investors are already moving and a fundamental transformation of the energy and transport sectors is underway. Global capital flows are increasingly focussed on the low carbon economy and over the last year Australia has been the target of significant international investment and the destination for international renewable energy developers, battery providers and electric vehicles. This transition brings with it real opportunity to further enhance economic growth while at the same time addressing the need to mitigate greenhouse gas emissions and plan for our economy to adapt to the changes from climate change that are already locked in. The jurisdictions that best plan and cater for such a transition will be the greatest beneficiaries of this increased economic activity.

As the largest economy in Australia, NSW is significantly challenged by the impacts of climate change. The government has undertaken significant effort to understand what these impacts will be and to consider the necessary tools for adaptation. It has been a leader in energy efficiency and is supporting a number of large scale renewables investments. It had the world's first emissions trading scheme. However, today it lacks a comprehensive co-ordinated approach to climate change – under which clear long term mitigation objectives are set and planned for, and an informed whole-of-government decision making process takes place. It is also not the most favoured destination for renewables investment and has not adequately planned for natural disasters that are caused or exacerbated by climate change.

The actions of the government today will have long-term impacts, and if not well considered, may well lock in long-term emissions of greenhouse gases and fail to adequately allow for adaption to changing climate conditions. Only a comprehensive and co-ordinated approach will best secure the future of NSW.

The recommendations in this paper provide a highly valuable suite of measures for the NSW government to adopt as part of a more comprehensive state-wide approach to climate change. They represent what is increasingly becoming standard practice, and what is necessary to position NSW on a policy path that will enable it to best plan for climate change impacts and benefit from the transition to a zero emissions economy.

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Executive Summary

This paper identifies the need for climate action and leadership in NSW and the crucial role of the planning system in reducing greenhouse gas emissions from NSW energy production, consumption and exports. It focuses on emissions reduction (mitigation) and sets out how the planning system can be part of the solution to avoid dangerous climate change.

The paper assesses and critiques the *Environmental Planning and Assessment Act 1979* (**EP&A Act**), the main planning legislation in NSW. This focus reflects the fact that most NSW greenhouse gas emissions are authorised by planning and development approvals under this Act.

Two major structural barriers to NSW taking effective action to reduce emissions are identified. The first barrier is a lack of emissions reduction targets, and associated regulatory infrastructure or agency responsibility for reducing our greenhouse impacts. The second barrier is the lack of integration between the need to reduce greenhouse gas emissions and the planning system.

As this paper makes clear, decision-makers in NSW need stronger laws and guidance on achieving greenhouse gas emissions reductions. The absence of an integrated approach to considering and reducing emissions is a critical policy gap that needs to be filled.

NSW laws on planning, environmental assessment, development approval and licensing fail to perform any strategic climate risk assessment, or link to a carbon budget, avoidance goal or an emissions reduction target.

The decisions we make now under the NSW planning system – on transport, energy, city planning, building standards and vegetation management – will have long-term effects on present and future generations. Project lifecycles mean that existing or new coal and gas projects approved for domestic or export use could operate up to and beyond 2050.

NSW has long been a leader in the environmental and planning law field. It was also one of the first jurisdictions to introduce emissions trading, under the former Greenhouse Gas Reduction Scheme. However, in recent times it has fallen behind other jurisdictions, both within Australia and internationally.

Properly integrating climate change and greenhouse gas emissions reduction into planning and environmental laws is a crucial mechanism in helping NSW play its part in mitigation measures and regain its leading role.

This paper outlines fourteen recommendations for the planning system to help NSW plan for a carbon-constrained future. Best practice, forward-looking planning laws would ensure that:

- emissions targets are established and linked to the planning system;
- objects include aims and duties to reduce emissions;
- strategic plans adopt and implement emission reduction goals;
- appropriate information and best available science is before decision-makers;
- decision-makers are equipped with the proper tools to make decisions that enable reductions in greenhouse gas emissions;
- resource extraction laws operate within this framework; and
- compliance, monitoring and enforcement is appropriately in place and strategic.

Recommendations

1. Setting the Framework

Recommendation 1

Enact new climate change laws that include provisions that:

- set a clear overarching objective to reduce greenhouse gas emissions;
- impose duties on Government ministers to set periodic and long-term emissions reduction targets and carbon budgets, based on expert advice;
- set a legislative renewable energy target for NSW electricity use; and
- require the new Act's implementation and goal-setting to be consistent with internationally agreed climate goals, best available science, and ecologically sustainable development principles.

Recommendation 2

Insert an object in NSW planning law to reduce greenhouse gas emissions in accordance with those duties, targets, carbon budgets, global goals and best available science.

2. Strategic Planning

Recommendation 3

Amend NSW planning law to require that strategic plans contribute to reducing, monitoring and improving greenhouse gas emissions across sectors, in accordance with relevant targets and best available science. Update all state environmental planning policies accordingly.

Recommendation 4

Before releasing a new resource area, require the relevant Minister to consider:

- likely emissions from resultant projects in the context of drawing down a state or national carbon budget;
- the scale, cost and timing of lifecycle greenhouse gas emissions of a project; and

- potential cumulative impacts with other past, present and approved or proposed future projects.

3. Environmental Impact Assessment

Recommendation 5

Require consistent and independent assessment of the likely greenhouse gas emissions of all major projects. This must include a Climate Impact Statement that states:

- how the project proposal contributes to relevant goals and targets to reduce greenhouse gas emissions;
- specific measures to avoid, minimise and offset emissions from the project;
- the measures in place to ensure downstream emissions are avoided, minimised and offset;
- the full cost of the project's emissions; and
- full and proper consideration of alternative options.

Recommendation 6

Publish greenhouse gas assessment and decision-making guidelines to ensure consistent, robust assessment and decisions based on best available science. Guidelines should apply an 'avoid, mitigate and offset' hierarchy for reducing emissions.

Recommendation 7

Require mandatory accreditation of environmental consultants who prepare Environmental Impact Assessment reports and independent appointment of accredited assessors.

4. Development Decisions

Recommendation 8

Strengthen decision-making requirements for development approvals and conditions in the EP&A Act, with the aim of achieving emissions reduction targets. In particular, establish new duties to:

- have regard to state and national emissions trajectories and act in accordance with short and long-term reduction targets;
- consider the level of greenhouse gas emissions as grounds for refusal (or a duty to refuse unacceptable impacts);
- impose specific conditions on development consents and mining titles to minimise emissions, meet certain standards if the project is approved, and to offset emissions that cannot be minimised or avoided; and
- apply clear guidelines, rules and standards to minimise and offset emissions.

Recommendation 9

Amend NSW planning laws to clarify that development consent conditions can be updated to require continuously improved standards, whether or not a modification has been requested.

Recommendation 10

Expand the Building Sustainability Index for energy and water efficiency standards, including:

- significantly higher residential standards;
- expand efficiency standards to commercial and industrial buildings;
- built-in review periods that require standards to continuously improve; and
- lead and develop national standards for other sustainability measures such as lifecycle emissions and waste levels.

5. Other Approvals and Licences

Recommendation 11

Mandate climate change and emissions as a consideration for assessing exploration or production title applications under mining laws. Before issuing a mining title, the relevant Minister should be required to consider:

- likely emissions in the context of drawing down a state or national carbon budget;
- the scale, cost and timing of lifecycle greenhouse gas emissions of a project; and
- cumulative impacts with other past, present and approved projects.

Recommendation 12

Add greenhouse gases as pollutants in NSW pollution control laws, to recognise their contribution to environmental degradation and encourage behavioural change. In the absence of a carbon price, this should include load-based licencing fees for greenhouse gas emissions, consistent with the polluter pays principle.

Recommendation 13

Establish emissions standards and continuous improvement requirements for NSW power stations, where appropriate based on nationally consistent standards. Standards and requirements would be enforceable conditions on environment protection licences.

6. Compliance and Enforcement

Recommendation 14

Establish a comprehensive greenhouse gas monitoring and auditing register to report on individual facilities with significant carbon footprints in NSW. This would draw on existing and new data, to track and report on approved and actual emissions.

Introduction

This paper is about the need for climate action and leadership in NSW and the crucial role of the planning system in reducing our contribution to greenhouse gas emissions. This includes emissions from NSW energy production, consumption and exports.[1]

Australia is already seeing the effects of one degree warming, and further climate change is locked in by emissions already in the atmosphere.[2] Predicted impacts for NSW include:

- up to 10 additional days above 40 degrees each year in northern NSW by 2030, rising to 33 additional days by 2070;
- increased crop failure, human and animal deaths;
- longer and more intense bushfire seasons;
- accelerated biodiversity loss; and
- increased irreversible soil erosion, affecting food security and water quality.[3]

The Intergovernmental Panel on Climate Change (**IPCC**) (2014) is highly confident that:

> *Without additional mitigation efforts beyond those in place today, and even with adaptation, warming by the end of the 21st century will lead to high to very high risk of severe, widespread, and irreversible impacts globally…*[4]

The Paris Agreement in late 2015 provides clear impetus for strong action and targets on climate change across government, business and community sectors.[5]

There are two broad ways to limit climate change impacts – mitigation and adaptation. Mitigation involves avoiding and reducing emissions while adaptation involves increasing resilience to unavoidable change. Mitigating emissions now reduces the damage and costs of adapting later.

This paper focuses on mitigation and sets out how the planning system can be part of the solution to avoid dangerous climate change. It highlights two major structural barriers to NSW taking effective action to reduce emissions.

The first barrier is a lack of greenhouse gas emissions reduction targets, supported by regulatory infrastructure or agency responsibility for reducing our greenhouse impacts. It is clear there is

1 NSW has one of the highest levels of greenhouse gas emissions per capita in the world, estimated at 19.6 tonnes per person per year. This is well above Organisation for Economic Co-operation and Development (**OECD**) and global averages (but below the Australian average of 23.2 tonnes). See NSW Environment Protection Authority, *State of the Environment 2015* (2015): http://www.epa.nsw.gov.au/soe/soe2015/index.htm.

2 Risks and impacts of continued greenhouse gas emissions are made clear in the Bureau of Meteorology and CSIRO, *State of the Climate 2014* (2014): www.bom.gov.au/state-of-the-climate.

3 See for example NSW Office of Environment and Heritage, *Impacts of Climate Change* Adapt NSW: http://climatechange.environment.nsw.gov.au/impacts-of-climate-change (accessed March 2016); CSIRO, *New climate change projections for Australia* (27 January 2015) CSIRO: http://www.csiro.au/en/News/News-releases/2015/New-climate-change-projections-for-Australia.

4 IPCC, 2014: *Climate Change 2014*: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, p 17: http://www.ipcc.ch/report/ar5/syr/.

5 In December 2015, over 190 nations affirmed a goal to reduce greenhouse gas emissions in order to limit average global warming to well below 2°C above pre-industrial levels and to pursue efforts to limit warming to 1.5°C. United Nations Framework Convention on Climate Change Conference of the Parties 21, *Adoption of the Paris Agreement*, 'Annex - Paris Agreement', Article 2 (FCCC/CP/2015/L.9/Rev.1). The Paris Agreement builds on past international commitments in Cancun, Lima and elsewhere under the 1992 UN Framework Convention on Climate Change.

no government agency responsible for reducing the State's greenhouse gas emissions, and no coordinated policy, plan, target or law to do so.[6]

NSW is one of the worst-performing Australian jurisdictions in this regard. South Australia, Tasmania, Victoria and the ACT have shown that specific emissions reduction targets are responsible and achievable (see Table 1). Other states and nations in Europe, the UK, North America and Asia are also legislating targets and actions to protect their climate.

The second barrier this paper identifies is the lack of integration between the need to reduce greenhouse gas emissions and the land-use planning system. State governments are mainly responsible for making laws for the environment, regional and urban planning, and natural resource management. However, no part of the NSW planning, development assessment, approval or licensing framework does any of the following:

- performs strategic climate risk assessment;
- links to an emissions reduction target or a finite 'carbon budget';[7] or
- has an overarching goal to avoid two degrees warming.[8]

As this paper makes clear, decision-makers need stronger laws and guidance on greenhouse gas emissions reductions. The absence of an integrated approach to considering and reducing greenhouse gas emissions is a critical policy gap that needs to be filled.

The main planning law in NSW is the *Environmental Planning and Assessment Act 1979* (**EP&A Act**). The paper focuses on the EP&A Act because most of NSW greenhouse gas emissions are authorised by planning and development approvals (explicitly or otherwise).

In recent times, the NSW Government's position has been that the planning system is not the place to curb greenhouse gas emissions. This approach needs to change. Properly integrating climate change and emissions reduction into planning and environmental laws is a crucial mechanism in helping NSW play a role in mitigation measures.

6 Based on an analysis of legislation, case law and discussions with public agencies.

7 According to the Australian Government Climate Change Authority carbon budgets, also known as global emissions budgets, 'have gained prominence as a way to analyse and communicate the scale of emissions reductions required to remain within a global temperature limit. Emissions budgets help to link emissions targets and trajectories to the underlying science of climate change.' For further information see: http://www.climatechangeauthority.gov.au/reviews/targets-and-progress-review/part/chapter-3-global-emissions-budget-2-degrees-or-less

8 While Environmental Impact Statements are required to predict emissions from individual project proposals, we know of no policy stating how planning authorities take this into account, individually or cumulatively.

Assessment and critique

This paper focuses on six key stages of the NSW planning system that are relevant to greenhouse gas emissions reduction – namely:

1. Setting the framework
2. Strategic planning
3. Environmental impact assessment
4. Development decisions
5. Other approvals
6. Compliance and enforcement.

Within each of these key stages, the paper considers how climate change and greenhouse gas emissions are currently dealt with and then how the law can be improved to help reduce these emissions.

1. Setting the framework

Tackling greenhouse gas emissions reduction in NSW requires consideration of two related issues – assigning responsibility within the NSW Government; and designing effective planning laws, from high-level objects through to operations.

Assigning responsibility

The current approach

There is no NSW Government agency responsible for reducing the State's greenhouse gas emissions, and no coordinated policy, plan, target or law to do so. NSW – historically a leader in planning and environmental matters – is currently lagging behind other jurisdictions in this regard. Table 1 demonstrates this point. Concerningly, in recent years the NSW Government has made the argument that the planning system is not the place to curb greenhouse gas emissions.[9]

9 As argued by the Department of Planning in the Ulan case, discussed below: see *Hunter Environment Lobby Inc v Minister for Planning* [2011] NSWLEC 221 (24 November 2011) [59].

Table 1: Summary of state and federal climate mitigation laws and targets

State	Climate Mitigation Law	Legislative Targets
SA	*Climate Change and Greenhouse Emissions Reduction Act 2007*	• 60% reduction in emissions by 2050 (1990 baseline). • 20% electricity generated and consumed from renewables by end 2014. • 50% of electricity generated from renewables by 2025 (policy target). • Net zero emissions by 2050 (policy target).[10]
TAS	*Climate Change (State Action) Act 2008*	• 60% reduction in emissions by 2050 (1990 baseline).
ACT	*Climate Change and Greenhouse Gas Reduction Act 2010*	• Zero net greenhouse gas emissions by 2060 (principal target – including by avoidance, mitigation and offsets). • 40% reduction in emissions by 2020 (1990 baseline). • 80% reduction in emissions by 2050 (1990 baseline). • Peaking per capita emissions by 2013. • 90% of electricity generated from renewables by 2020.
VIC	*Climate Change Act 2010*	• No current legislated target. Previously a 20% reduction in emissions by 2020 (2000 baseline). • In 2015 an independent review recommended Victoria reinstate legislative emissions reduction targets.[11] • The Victorian Government proposes to legislate a target of net zero emissions by 2050.[12]
CTH	(No legislated emissions reduction target) *Renewable Energy (Electricity) Act 2010* *Carbon Credits (Carbon Farming Initiative) Act 2011*	• 5% reduction in emissions by 2020 (2000 baseline) (Kyoto Protocol, policy target). • 26-28% reduction in emissions by 2030 (2005 baseline) (Paris Agreement, policy target). • Revised Renewable Energy Target of 33,000 GWh by 2020. • Note: The Climate Change Authority (2015) recommended a 30% reduction in emissions by 2025 (2000 baseline), with a further target range of 40-60% reduction by 2030.[13]
NSW	No climate mitigation law	• None.
WA	No climate mitigation law	• None.
QLD	No climate mitigation law	• None.
NT	No climate mitigation law	• None.

10 Government of South Australia, *South Australia's Climate Change Strategy 2015 – 2050 – Towards a low carbon economy* (29 November 2015): http://www.environment.sa.gov.au/Science/Science_research/climate-change/climate-change-initiatives-in-south-australia/sa-climate-change-strategy, pp 15, 32.

11 Martijn Wilder, Anna Skarbek and Rosemary Lyster, *Independent Review of the Climate Change Act 2010* (2015) p 17.

12 Victorian Government, 'Victoria's Net Zero by 2050 Emissions Reduction Target' (Announcement, 9 June 2016): http://www.delwp.vic.gov.au/news-and-announcements/net-zero-by-2050 (accessed June 2016).

13 Australian Government Climate Change Authority, 'Some Observations on Australia's Post-2020 Emissions Reduction Target' (Statement by the Chair, Mr Bernie Fraser, 14 August 2015): http://www.climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/CFI/CCA-statement-on-Australias-2030-target.pdf.

The way forward

Robust climate change mitigation measures should require the NSW planning system to be informed by greenhouse gas emissions targets set under legislation, and place duties on decision-makers to achieve those targets. This has been done in other countries and states.[14]

The NSW State Plan should include a vision for a rapid and responsible transition to a low-carbon economy in NSW. This is consistent with NSW membership of The Climate Group States & Regions Alliance. All Government departments would need to direct and report on climate change action, including various agencies responsible for environmental management and land use planning. Similar approaches are adopted in the *Environment (Wales) Act 2015*,[15] and recommended in the 2015 review of Victoria's *Climate Change Act 2010*.[16]

Planning Objectives

The current approach

The objects or purpose of an Act set out its aims and guide and interpret how the Act applies. The EP&A Act contains no reference to climate change or the need to reduce greenhouse gas emissions, either in its objects or its operational provisions.

In the absence of an explicit object to this effect, climate change and greenhouse gas emissions have been dealt with in a more circuitous way.

At the development consent stage, decision-makers are required to consider the environmental, social and economic impacts of a development proposal and to consider the public interest.[17] The public interest, in turn, is informed by the objects of the EP&A Act, which include 'the protection of the environment' and 'encouraging ecologically sustainable development'. The Courts have interpreted that the public interest requires at least the high-level consideration of ecologically sustainable development (**ESD**)[18] and its principles. This has included consideration of a project's impacts on climate change, and vice versa.[19]

While climate change considerations have therefore been read into the EP&A Act, a clearer signal would be for the objects of the EP&A Act to be explicit about reducing emissions and protecting NSW against climate change impacts.

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14 For example, the *Climate Change (Scotland) Act 2009* (Scot) places a legal duty on the Scottish Ministers to 'ensure that the net Scottish emissions account for the year 2050 is at least 80% lower than the [1990] baseline'. It also legislates an interim target for 2020, subject to expert advice.

15 The *Environment (Wales) Act 2015* (Wales) puts ecologically sustainable development at the heart of the Welsh natural resource management laws, including climate change (see Part 2 of the Act).

16 Martijn Wilder, Anna Skarbek and Rosemary Lyster, *Independent Review of the Climate Change Act 2010* (2015) p 17.

17 *Environmental Planning & Assessment Act 1979* (NSW), s 79C.

18 In NSW planning, pollution and environmental laws, ESD calls for the integration of environmental, social and economic considerations in decisions, based on the principles of ESD. These derive from the *Protection of the Environment Administration Act 1991* (NSW), s 6, and include:
- the precautionary principle (i.e. that scientific uncertainty should not delay action to avert serious harm);
- conservation of biodiversity and ecological integrity as a fundamental consideration;
- intergenerational equity (and intra-generational equity); and
- full valuation of environmental costs and benefits (including the polluter pays principle).

19 See for example *Walker v Minister for Planning* (2007) 157 LGERA 124; [2007] NSWLEC 741; *Minister for Planning v Walker* (2008) 161 LGERA 423; [2008] NSWCA 224; *Aldous v Greater Taree City Council* (2009) 167 LGERA 13; [2009] NSWLEC 17.

The way forward

As Table 1 shows, climate mitigation laws in other states and territories set legislative targets for emissions reductions. Some also set renewable energy targets. This should be supported by whole-of-government policy that assigns specific responsibilities to achieve these goals.

An important next step is to embed emissions reduction in planning law objects.

Planning law in Queensland goes some way towards this. The overall purpose of the *Sustainable Planning Act 2009* (Qld) is 'to seek to achieve ecological sustainability'.[20] The Act provides guidance on how this is done, setting out an inclusive list of how to advance the Act's purpose. This includes:

- ensuring decision-making processes 'take account of short and long-term environmental effects of development at local, regional, State and wider levels, including, for example, the effects of development on climate change';
- prudent use of natural resources, including 'considering alternatives to the use of non-renewable natural resources'; and
- 'avoiding, if practicable, or otherwise lessening, adverse environmental effects of development, including, for example - climate change and urban congestion'.

It is crucial that the objects of an Act are clearly operationalised in decision-making. Unlike NSW, the Queensland Act mandates that powers or functions are exercised in a way that advances the Act's purpose. However, this Act does not apply to all development in Queensland, and addressing climate change has not been systematically adopted in other relevant laws.[21]

The objects of the NSW EP&A Act must refer explicitly to reducing greenhouse gas emissions as a key aim of the planning system. Importantly, the Act should also include specific duties on decision-makers to ensure reduction targets are met (as in the UK).[22]

Greenhouse gas emissions reduction should then be explicitly referred to at significant decision-making points in the EP&A Act. As discussed below, this would include strategic plan-making, environmental impact assessment, development approval, and compliance monitoring and reporting.

Recommendations

Recommendation 1

Enact new climate change laws that include provisions that:

- set a clear overarching objective to reduce greenhouse gas emissions;
- impose duties on Government ministers to set periodic and long-term emissions reduction targets and carbon budgets, based on expert advice;
- set a legislative renewable energy target for NSW electricity use; and

20 *Sustainable Planning Act 2009* (Qld), s 5.

21 This includes laws that regulate major projects with significant greenhouse gas emissions, such as the *State Development and Public Works Organisation Act 1971* (Qld).

22 For example, *Climate Change (Scotland) Act 2009* (Scot) and *Environment (Wales) Act 2015* (Wales).

- require the new Act's implementation and goal-setting to be consistent with internationally agreed climate goals, best available science, and ESD principles.[23]

Recommendation 2

Insert an object in NSW planning law to reduce NSW greenhouse gas emissions in accordance with duties, targets, carbon budgets, global goals and best available science.

Solar farm in the Flinders Ranges, SA

23 As noted elsewhere, ESD principles are adopted under the EP&A Act objects, set out in *Protection of the Environment Administration Act 1991* (NSW), s 6.

2. Strategic planning

The current approach

Strategic planning is a high-level process for managing land use and natural resources. It should ensure that smaller development decisions accord with longer-term social, economic and environmental needs, and adjust to changing conditions.

The EP&A Act deals with strategic planning.[24] Regional plans are now in development, but with no clear legislative or policy framework, and no systematic or practical measures to plan for a low-carbon future.[25] The planning system also remains disconnected from broader natural resource management (**NRM**) planning.[26]

Strategic planning principles

The Government's Planning Review of 2011-2013 found widespread agreement that planning law needs much clearer requirements for strategic (or regional) planning. The Independent Planning Review Panel recommended that any new Act should set out clear objects for strategic planning, including to:

> *Consider the scientifically anticipated impact of climate change within the footprint of the strategic planning study area and the broad measures required to mitigate its impact.*[27]

While the Government's Planning Bill 2013 proposed a new strategic planning framework, it did not accept the Panel's recommendation to include climate change as a strategic planning factor.[28] To date, the NSW Government has not adopted this recommendation.

State Environmental Planning Policies

The EP&A Act empowers the Government to enact State Environmental Planning Policies (**SEPPs**) for a range of state-level matters. SEPPs are powerful instruments because they can override Local Environmental Plans (**LEPs**) and development controls, and have other pervasive effects.[29]

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24 *Environmental Planning & Assessment Act 1979* (NSW), Part 3.

25 Regional plans are instead given effect by delegated ministerial directions under s 117 of the Act.

26 For example, under the *Local Land Services Act 2013* (NSW) or *Natural Resources Commission Act 2003* (NSW).

27 Tim Moore and Ron Dyer, *The way ahead for Planning in NSW*, Independent Review Panel Report, Vol 1, (2012) recommendation 8.

28 In fact, climate change, greenhouse gas emissions, urban sustainability and design were all surprisingly absent from the Government's Planning *Green Paper* (2012), *White Paper* (2013), and the draft *Planning Bill 2013* (which ultimately stalled).

29 SEPPs generally require public consultation before they are made, but they can have pervasive effects that override local development controls, and once a SEPP is made, these effects are difficult to challenge: *Huntlee Pty Ltd v Sweetwater Action Group Inc; Minister for Planning and Infrastructure v Sweetwater Action Group Inc* (2011) 185 LGERA 429; [2011] NSWCA 378.

While SEPPs could be used to assess, limit or regulate greenhouse gas emissions through planning and development approvals, there is no currently comprehensive 'climate change mitigation SEPP' that integrates these considerations into decision-making under the EP&A Act.

There are many SEPPs dealing with development including State Significant Development and Infrastructure, smaller public infrastructure, mining and extractive industries (**Mining SEPP**), residential energy and water standards (**BASIX**) and environmental protection (such as for koala habitat, coastal rainforests and wetlands).[30] The Mining SEPP and BASIX are two SEPPs that do refer to greenhouse gas emissions, but only do so in limited ways.

Resource and infrastructure projects

The lack of strategic planning and emissions reduction targets has meant that sectors with significant greenhouse gas impacts – such as mining, energy and transport – have expanded on an ad hoc, project-by-project basis. At present, over three-quarters of NSW emissions come from extracting, processing and burning fossil fuels,[31] including transport emissions (now at 19%). However, there remains no coordinated Government plan to manage emissions-intensive sectors.

In recent years, the need to consider the extractive resources sector in a way that reduces land-use conflicts has led to various strategic planning frameworks.[32] Yet none of these frameworks deal with reducing greenhouse gas emissions. Neither the frameworks, nor the studies and reports that underpin them, properly acknowledge climate change and emissions reduction as key challenges that need to be dealt with by government, industry and the community.

For example, the *Strategic Statement on NSW Coal (2014)* includes a 'Sustainability' objective related to 'triple bottom line considerations to promote comprehensive and balanced decision making'. However, it omits any reference to considering climate change risks and impacts, or ESD principles such as the precautionary principle, intergenerational equity or full environmental costing.

Similarly, under the *Strategic Release Framework (2015)* for opening new areas to coal and gas exploration, greenhouse gas emissions and climate risks are excluded from 'triple bottom line' considerations. The reason given for excluding these matters from assessments of new coal licence areas was that these are not local issues relevant to 'preliminary regional impact assessment'.[33] This approach fails to recognise the fact that the impacts of climate change will be felt both locally and globally in all sectors of society.

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30 For example SEPP (State and Regional Development) 2011; SEPP (Infrastructure) 2007; SEPP (Mining, Petroleum Production and Extractive Industries) 2007; SEPP (Building and Sustainability Index) 2004; SEPP No 44 - Koala Habitat Protection. See New South Wales Government, NSW Legislation for a full list of SEPPs: http://www.legislation.nsw.gov.au/maintop/scanact/inforce/NONE/0.

31 Office of Environment and Heritage, *NSW emissions* AdaptNSW: http://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW/NSW-emissions (accessed March 2016). See also NSW Environment Protection Authority, *State of the Environment 2015* (2015), 'Greenhouse Gas Emissions', p 37: http://www.epa.nsw.gov.au/soe/soe2015/index.htm.

32 These frameworks include:
- *Strategic Regional Land Use Policy* (2012) – A Government policy dealing with land and water use conflicts between agriculture and coal seam gas (**CSG**). These Plans are only in place in the Upper Hunter and New England/North West.
- *Strategic Statement on NSW Coal* (2014) – A Government policy statement which 'aims to realise… economic value while protecting our environment and the health of our communities'.
- *NSW Gas Plan* (2014) – A Government plan to 'pause and reset' CSG regulation.
- *Strategic Release Framework* (2015) – A Government framework for opening new areas for coal and CSG exploration. The Framework is part of the NSW Gas Plan and the Government's response to various reports, including ICAC's report into corruption in coal mining licensing (2013); the Chief Scientist & Engineer's report into Coal Seam Gas regulation (2014); and the NSW Coal Exploration Steering Group recommendations (2015).
- *Minerals Industry Action Plan* (2015) – An industry plan commissioned by Government to support mining in NSW.

33 NSW Government Coal Exploration Steering Group, *Improving NSW's Process to Allocate Coal Exploration Licences* (2014), p 3 stated that 'the [strategic preliminary issues] assessment will not consider non-local issues such as the management of greenhouse gas emissions'.

The way forward

Strategic planning in NSW needs to deal more effectively with greenhouse gas emissions reduction. This could be done through, among other things, implementing a reductions target through the EP&A Act, which should in turn carry through to state-level planning policies (such as SEPPs), regional strategic plans and LEPs.

NSW strategic planning laws must require plan-makers to plan for the direct and indirect impacts of climate change – including the need to reduce greenhouse gas emissions – when developing and finalising strategic plans. In doing so, plan-makers must act in accordance with state and national greenhouse gas emissions reduction targets,[34] and the best available science.

Better planning is also needed for emissions intensive sectors with long project lifecycles. Resource development must be ecologically sustainable, including consideration of climate change. This aim should be given effect upfront in the strategic planning phase. For example, having regard to international agreements to avoid 1.5 to 2 degrees average global warming, the NSW Government should not release new areas for extraction that will significantly contribute to greenhouse gas emissions and (future) state and national emission reduction targets must be embedded in law and policy.

This would need new whole-of-government guidance and investment in resourcing, training, and cultural change within the public and private sectors.

Recommendations

Recommendation 3

Amend NSW planning law to require that strategic plans contribute to reducing, monitoring and improving greenhouse gas emissions across sectors, in accordance with relevant targets and best available science. Update all state environmental planning policies accordingly.

Recommendation 4

Before releasing a new resource area, require the relevant Minister to consider:

- likely emissions from resultant projects in the context of drawing down a state or national carbon budget;
- the scale, cost and timing of lifecycle greenhouse gas emissions of a project; and
- potential cumulative impacts with other past, present and approved or proposed future projects.

34 This would include laws that give effect to international agreements to avoid dangerous climate change.

3. Environmental impact assessment

The current approach

Environmental impact assessment (**EIA**) relies on comprehensive and accurate information on the potential environmental, social and economic impacts of a development proposal. In NSW, this involves the proponent submitting an environmental study to the decision-maker. This is an important stage for considering greenhouse gas impacts, because most high emitting projects require some form of EIA and approval in the planning system.

NSW planning laws set out two main EIA processes that broadly reflect the scale of development impacts.[35]

Higher-impact proposals – such as large factories, mining production and transport projects – require a full Environmental Impact Statement (**EIS**) prepared in accordance with Secretary's Environmental Assessment Requirements (**SEARs**).[36] These are issued by the Department of Planning. The EIS is generally placed on public exhibition with the development proposal for at least 30 days' comment.

Lower-impact proposals – such as local development, infrastructure and mining and gas exploration – require a Statement of Environmental Effects or a Review of Environmental Factors (under Part 4 or 5 of the EP&A Act). These processes are generally less likely to assess greenhouse gas emissions.

The EIA process does not adequately deal with emissions reductions for a number of reasons.

First, there is no standard legal provision, and no standard policy statement, on how the impacts of greenhouse gas emissions are to be assessed for particular sectors or project types.[37]

Recently there have been some limited steps to address this. For example, new requirements for major mining proposals will require the EIS to comprehensively forecast and assess their greenhouse gas emissions, including downstream or scope 3 emissions, such as from burning exported coal.[38] Also, recent economic assessment guidelines expect mining and coal seam gas (**CSG**) companies to address the costs of greenhouse gas emissions, 'including quantification where feasible'.[39] However, scope 3 emissions were excluded from these guidelines, with detailed requirements deferred to future technical papers. For other sectors, expectations remain unclear.

35 *Environmental Planning & Assessment Act 1979* (NSW), Parts 4 and 5.

36 These include designated development, and most State Significant Development and Infrastructure.

37 The BASIX scheme for housing efficiency is the main exception, discussed further below.

38 NSW Government, *Indicative Secretary's Environmental Assessment Requirements for state significant mining proposals* (October 2015) (*Indicative SEARS*) Integrated Mining Policy, p 18. See: http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy (accessed March 2016).

39 NSW Government, *Guidelines for the economic assessment of mining and coal seam gas proposals* (December 2015) Integrated Mining Policy pp 15-16. See: http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy (accessed March 2016).

Second, there remains wide discretion and little guidance on what to do with emissions information once decision-makers have it (addressed under 'Development decisions' below). Indeed, no project in NSW has been rejected on the basis of excessive greenhouse gas emissions or unacceptable risks to the climate, and there is no established framework for doing so.

Third, it is widely recognised that cumulative impact assessment is a key inadequacy of EIA in the NSW planning system.[40] Greenhouse gas emissions are the quintessential example of cumulative impacts because they incrementally add up to a shared and dangerous problem.

The way forward

Planning laws can greatly improve EIA processes by (1) standardising assessment requirements for high-emitting sectors, and (2) requiring major project applications to include a *Climate Impact Statement* to highlight greenhouse gas emissions and mitigation. In particular:

- clarify in law the scale of projects, impacts and sectors that are required to estimate greenhouse gas emissions in EIA documentation via a new Climate Impact Statement;
- statements must demonstrate how a project will avoid, minimise and offset emissions;
- require the use of standard methods to estimate direct 'scope 1' emissions (such as fugitive methane from a coalmine), 'scope 2' emissions (such as electricity use), and up and downstream 'scope 3' emissions;[41]
- prescribe a method to calculate the full social costs of greenhouse gas emissions (including environmental and public health costs over time);[42] and
- require the EIA to estimate a range of emissions, the degree of any uncertainty, and the reasons for such uncertainty. These assessments should be conducted by independent experts.

The NSW planning system also needs to consider a project's greenhouse gas emissions in the context of the contribution that NSW and Australia must make to keep global temperatures from rising more than 1.5 degrees. Appropriate climate mitigation architecture, such as a carbon budget and emissions register would substantially assist in this endeavour.

Recommendations

Recommendation 5

Require consistent and independent assessment of the likely greenhouse gas emissions of all major projects. This must include a Climate Impact Statement that states:

- how the project proposal contributes to relevant goals and targets to reduce greenhouse gas emissions;
- specific measures to avoid, minimise and offset emissions from the project;
- the measures in place to ensure downstream emissions are avoided, minimised and offset;

40 For example, the term *cumulative* is not used in the EP&A Act and appears only three times in the *Environmental Planning and Assessment Regulation 2000* (NSW) (cl 228 and Schedule 3 – Designated development).

41 Standard methodologies have been developed for defining and accounting for scope 1, 2 and 3 emissions. For example, in NSW the Indicative Standard Environment Assessment Requirements for mining projects (2015) adopt the Greenhouse Gas Protocol of the World Resource Institute and others: http://www.ghgprotocol.org/.

42 See for example the United States Environmental Protection Agency, *Social Cost of Carbon* (2015) United States Environmental Protection Agency: https://www3.epa.gov/climatechange/EPAactivities/economics/scc.html (accessed June 2016).

- the full cost of the project's emissions; and
- full and proper consideration of alternative options.

Recommendation 6

Publish greenhouse gas assessment and decision-making guidelines to ensure consistent, robust assessment and decisions based on best available science. Guidelines should apply an 'avoid, mitigate and offset' hierarchy for reducing emissions.

Recommendation 7

Require mandatory accreditation of environmental consultants who prepare EIA reports, and independent appointment of accredited assessors.

Coal loader in the Hunter Valley, NSW

4. Development decisions

The current approach

This section considers the decision-making process and consent conditions for projects involving significant greenhouse gas emissions.

Under the current EP&A Act most projects with significant greenhouse gas emissions are dealt with and approved under Part 4 and the matters for consideration outlined in s 79C(1).[43]

In deciding whether to approve or refuse a proposal, the decision-maker must evaluate the EIA information and associated reports, public submissions, relevant planning instruments (such as SEPPs and LEPs), likely impacts on the environment, the suitability of the site, and the public interest.[44] If approved, conditions may be imposed to minimise adverse impacts, including on the environment.

NSW environmental and planning law has made some advances to deal with greenhouse gas emissions over the past decade. However, at various times, the NSW Government has resisted the rigorous consideration of greenhouse gas emissions – that is increasingly needed and being adopted elsewhere. This resistance has been evident in landmark cases over the past decade, such as *Gray, Walker*, and *Ulan*,[45] and in recent departmental recommendations, major project approvals and conditions.

Approvals under the Mining SEPP

For resource extraction proposals, the Mining SEPP further informs decision-making. This is a powerful planning instrument which in part determines where mining can take place in NSW.[46] The Mining SEPP does require decision-makers to consider greenhouse gas emissions from a project in two ways[47] (while still being heavily geared to facilitate resource extraction).

The first is a duty to consider the need for conditions to minimise greenhouse gas emissions. Notably, it is not a duty to *impose* those conditions.[48] The second requirement is to consider an assessment of

43 Part 4 of the EP&A Act includes ordinary development and State Significant Development under Division 4.1. Exceptions outside Part 4 include former 'Part 3A' major projects (most of which are already approved) and State Significant Infrastructure (approved with broad ministerial discretion under Part 5.1 of the EP&A Act, similar to former Part 3A).

44 Generally, the consent authority for significant projects is the Planning Minister or their delegate (such as the Planning Assessment Commission).

45 *Gray v The Minister for Planning, Director-General of the Department of Planning and Centennial Hunter Pty Ltd* (2006) 152 LGERA 258; [2006] NSWLEC 720; *Walker v Minister for Planning* (2007) 157 LGERA 124; [2007] NSWLEC 741; *Minister for Planning v Walker* (2009) 161 LGERA 423; [2008] NSWCA 224; *Hunter Environment Lobby Inc v Minister for Planning* [2011] NSWLEC 221 (24 November 2011); *Hunter Environment Lobby Inc v Minister for Planning* [2012] NSWLEC 40 (13 March 2012). See also EDO NSW, *Past Cases – Climate Change and Energy* (2016) EDO NSW: http://www.edonsw.org.au/climate_change_energy_cases.

46 For example, the Mining SEPP permits exploration and mining in certain areas and explicitly overrides other local development controls (see e.g. clauses 5-8).

47 Mining SEPP 2007, cl 14(1)-(2).

48 For example, it is open to the decision maker to decide that consent for the mining project need not include conditions that greenhouse gas emissions be 'minimised to the greatest extent practicable': cl 14.

the project's greenhouse gas emissions (including scope 3 emissions). It is not clear *how* the decision-maker is to evaluate those emissions or weigh them against other factors. It is also unclear exactly what 'State or national policies, programs or guidelines' the decision-maker must have regard to, given that a central problem identified in this paper is the lack of such policies.[49]

In the absence of clearer duties, current terms used in the Mining SEPP and some project conditions, such as minimise emissions 'to the greatest extent practicable', remain ambiguous. This affects the quality of decisions, approval conditions and enforceability.

Similarly there is no guidance on what would constitute an unacceptable greenhouse gas impact that should lead to the refusal of a proposal.

Inconsistent or non-existent

Overall, current decision-making requirements to assess and limit greenhouse gas emissions are vague and inconsistent, if they exist at all. This is ultimately reflected in the high-level conditions placed on recent projects with significant greenhouse gas emissions. For example: 'The Applicant shall (a) implement all reasonable and feasible measures to minimise the… release of greenhouse gas emissions from the development…'[50]

The qualified nature of this requirement highlights the broad discretion left open to the proponent and the Department of Planning. This approach falls strikingly short of a requirement to avoid, minimise and offset all greenhouse gas emissions – a proposition partly advanced by the community before the Court in the *Ulan* case of 2011-12.[51]

Building Sustainability Standards

BASIX is the primary mechanism for improving building sustainability standards in NSW law. The SEPP imposes energy and water efficiency standards and limits on new residential buildings in NSW. In 2013 it was estimated that BASIX saved two million tons of greenhouse gas emissions.[52] However, the standards have not been updated since 2006, and the majority of NSW energy-related emissions remain out of the scope of BASIX.

Significantly improving building sustainability standards is important because:

- higher efficiency standards can create significant co-benefits including consumer savings;
- half of NSW greenhouse gas emissions are from stationary energy (e.g. electricity);[53]
- a quarter of NSW emissions are from electricity use in housing;[54] and
- over half of Sydney's emissions come from the non-residential built environment.[55]

49 In future, the *Indicative SEARs* will guide the proponent's EIS preparation. However, we are not aware of any other formal guidelines that assist the decision-maker. By referring to 'policies' and not laws, the SEPP highlights the absence of any specific State or federal law to reduce emissions.

50 See for example NSW Government Department of Planning and Environment, *Warkworth Continuation Project (SSD-6464) – Development Consent under Section 89E of the Environmental Planning and Assessment Act 1979*, 26 November 2015, Schedule 1.

51 *Hunter Environment Lobby Inc v Minister for Planning* [2011] NSWLEC 221 (24 November 2011); *Hunter Environment Lobby Inc v Minister for Planning* [2012] NSWLEC 40 (13 March 2012).

52 NSW Government Department of Planning & Infrastructure, *BASIX Target Review: FAQs* (December 2013): http://www.basix.nsw.gov.au/iframe/images/4050pdfs/BASIX-Target-Review-GeneralQA_extension.pdf.

53 See NSW Office of Environment and Heritage, *NSW emissions* AdaptNSW: http://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW/NSW-emissions (accessed March 2016).

54 NSW Environment Protection Authority *State of the Environment 2015* (2015), p 39: http://www.epa.nsw.gov.au/soe/soe2015/index.htm.

55 Commercial and manufacturing/industrial sectors together account for 55% of Sydney's emissions. NSW Government, *Sydney over the next 20 years – A Discussion Paper* (2012), p 24.

Ulan mine expansion: greenhouse gas emissions, offsets and conditions of approval

In *Ulan*, a community group, the Hunter Environment Lobby, brought a merits review case in the NSW Land and Environment Court against a coal mine expansion. Among other things, the group sought conditions requiring the mining company to offset its scope 1 and 2 greenhouse gas emissions.

In its initial judgement, the Court noted its intention to impose the group's suggested offset conditions, and sought comment on the implications of the then federal Clean Energy legislation (carbon pricing) for the wording of those conditions.

However in its second judgment, the Court ultimately declined to impose the greenhouse gas conditions, on the basis that the federal carbon pricing regime would cover most of the mine's activities which result in scope 1 emissions, and therefore the purpose of the condition would be otherwise met.

Shortly after the second judgment however, the Australian Government repealed the Clean Energy laws which the Court relied on to displace the need for greenhouse gas offset conditions. In effect, the coal mine was no longer required to pay for its greenhouse gas emissions, either under the federal scheme or the state development approval.

Despite the federal repeal, the NSW Department of Planning (which opposed the greenhouse offset conditions) has not taken the Court's lead to impose greenhouse gas offset conditions in subsequent recommendations or approvals.

Ulan is a landmark case in that the greenhouse gas conditions sought by the community group were the first of their kind to be considered by a Court in Australia. The first judgment – where the Court expressed an intention to impose greenhouse gas conditions, subject to consideration of the Clean Energy regime – sets an important precedent.

The way forward

Quantifying total greenhouse gas emissions at the EIA stage, and placing this information before the public and the decision-maker, are important steps forward. However, decision-makers also need clear guidance on what to do with that information, and how to weigh it up.

NSW planning laws must adopt a comprehensive assessment and decision-making framework for the climate change implications of development, particularly major projects. Emission reduction targets linked to the planning system, and guidelines that direct decision-makers to assess the significance of emissions, refuse unacceptable impacts, and impose standardised conditions to avoid, minimise and offset emissions, are key missing pieces.

Reforms are also needed to deal with high-emissions facilities that operate under long-outdated approvals and conditions. Planning and pollution laws, and the agencies that administer them, must impose updated standards. This could be done by updating development consents or Environment Protection Licence (**EPL**) conditions (EPLs are discussed below) or through Pollution Reduction Programs overseen by the NSW Environment Protection Authority (**EPA**).[56]

56 The *Protection of the Environment Operations Act 1997* (NSW) requires the EPA to periodically review EPLs and empowers the EPA to set Pollution Reduction Programs for licensed facilities: ss 68, 78. For development consents, EP&A Act, s 96, which enables modification at proponents' request, could be expanded.

For smaller-scale urban development where the problem is cumulative impacts, there are a number of ways to improve upon the sound principles and good works of BASIX,[57] namely:

- update the standards in light of sustainability developments over the past decade. BASIX must require regular reviews to build-in continuous improvement and innovation;
- expand minimum efficiency standards to commercial and industrial buildings, including retro-fitting, where significant gains could be made;
- allow planning authorities to set more stringent sustainability standards for precincts; and
- use NSW expertise developed through BASIX to lead and develop national standards for other sustainability measures, such as lifecycle emissions and waste levels.[58]

Recommendations

Recommendation 8

Strengthen decision-making requirements for development approvals and conditions in the EP&A Act, with the aim of achieving emissions reduction targets. In particular, establish new duties to:

- have regard to state and national emissions trajectories and act in accordance with short and long-term reduction targets;
- consider the level of greenhouse gas emissions as grounds for refusal (or a duty to refuse unacceptable impacts);
- impose specific conditions on development consents and mining titles to minimise emissions, meet certain standards if the project is approved, and to offset emissions that cannot be minimised or avoided; and
- apply clear guidelines, rules and standards to minimise and offset emissions.

Recommendation 9

Amend NSW planning laws to clarify that development consent conditions can be updated to require continuously improved standards, whether or not a modification has been requested.

57 While the two million tons noted above is not insignificant, these savings remain a very small fraction of NSW emissions (less than half of 1% of annual emissions from stationary energy). In 2013, EDO NSW estimated savings from BASIX at around 0.35% of the State's annual stationary energy emissions. Comparisons in 2009 estimated BASIX savings of 0.04% of annual NSW emissions. See Amelia Thorpe and Kristy Graham, 'Green buildings – are codes, standards and targets sufficient drivers of sustainability in NSW?' (2009) *Environment and Planning Law Journal* 486, 488.

58 See, for example, EDO NSW, Submission on the Building Sustainability Index (BASIX) Target Review, 31 January 2014: http://www.edonsw.org.au/submission_on_the_building_sustainability_index_basix_target_review.

Recommendation 10

Expand BASIX for energy and water efficiency standards, including:

- significantly higher residential standards;
- expand efficiency standards to commercial and industrial buildings;
- built-in review periods that require standards to continuously improve; and
- lead and develop national standards for other sustainability measures such as lifecycle emissions and waste levels.

5. Other approvals

The current approach

Some development proposals with significant greenhouse gas emissions and impacts require additional permits beyond development approval under the EP&A Act. This may include an EPL, or a mining title (exploration licence or production lease).

There is scope for these authorisations to limit greenhouse gas emissions or require offsets.[59] However, in practice, they are generally not used in this way. As with planning laws, NSW mining and pollution laws fail to provide for adequate assessment, limitation or continuous improvement of the greenhouse gas emissions and climate change impacts of major projects.

Environment Protection Licences

NSW pollution laws interact with the planning system to regulate industrial discharges of pollutants and waste into the air, water and land.[60] Significant polluters must obtain an EPL, which may limit pollution, and may require maintenance, monitoring and reporting. Some pollutants are subject to Load-Based Licensing, a 'polluter pays' fee based on how much pollution is emitted.

However, the NSW pollution licensing system does not generally limit greenhouse gas emissions, or charge load-based licence fees on carbon dioxide and methane emissions. This includes fugitive

59 EPLs already play an important role in regulating air pollution in NSW. These licences and other requirements regulate air pollution from major projects. Key regulatory requirements relating to air pollution from major projects include:
- pre-approval EIA requirements – such as ambient air quality assessment;
- conditions on development consents and EPLs (such as limits on emissions of volatile organic compounds);
- other binding requirements and offence provisions in NSW pollution laws *(Protection of the Environment Operations Act 1997 ((NSW))*; and
- the National Environment Protection Measure on Ambient Air Quality Guidelines.

60 For State Significant Development projects, the EPA has no discretion to refuse an EPL – it must be issued consistently with the development consent and conditions, EP&A Act, ss 89J-K.

emissions from coal mining, oil and gas infrastructure which account for approximately 11% of NSW greenhouse gas emissions.[61]

Despite scientists and policymakers identifying benefits for public health and climate change mitigation in addressing greenhouse and other air pollution challenges together,[62] NSW does not have licences or regulations that properly avoid or reduce greenhouse gas emissions.

Emissions standards

There are no mandatory greenhouse efficiency standards for power stations in NSW or Australia. Pollution laws are generally state based without national coordination. In contrast, in 2015 the United States imposed national emissions standards via the US Environmental Protection Agency's (**US EPA's**) Clean Power Plan.

Under the *Clean Air Act*, the US EPA can work together with American States to generate specific emission targets for US power plants.[63] The Act enables the EPA to set emission standards for air pollutants from new and existing sources.[64] The EPA sets interim and final performance rates for coal and gas-fired power plants. Individual States can then decide how they want to best achieve the new standards (such as via emissions trading schemes).

US States need to ensure that either the combined or individual carbon emissions from their power plants reach the interim performance rates between 2022-2029, and the final performance rates by 2030.[65]

Wallerawang Power Station, NSW

61 See NSW Government Office of Environment and Heritage, NSW emissions AdaptNSW: http://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW/NSW-emissions (accessed March 2016).

62 Julia Schmale et al, 'Air pollution: Clean up our skies' (2014) 515 *Nature* 335: http://www.nature.com/news/air-pollution-clean-up-our-skies-1.16352.

63 *Clean Air Act* (US), s 111(d).

64 *Clean Air Act* (US), s 111.

65 United States Environmental Protection Agency, *Overview of the Clean Air Act and Air Pollution Share* (2015) United States Environmental Protection Agency: https://www.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan (accessed March 2016).

Mining and exploration titles

The failure to give upfront consideration to likely greenhouse gas emissions or climate change impacts from opening new coal and gas reserves is discussed above.

Once an area is opened for tender, a company must obtain a licence or 'mining title' to explore or mine in the area. Mining titles are granted by the NSW Resources Minister under the *Mining Act 1992* (**Mining Act**) for coal and other minerals, or the *Petroleum (Onshore) Act 1991* (**Petroleum Act**) for CSG and other petroleum.

Before issuing a mining title, both Acts require the Minister to 'take into account the need to conserve and protect the environment…'. Beyond this, ministerial discretion remains broad. In particular, the current terms are very general, and are limited to 'the environment in or on the land over which the authorisation is sought'.[66] There is no requirement to consider the potential impact of greenhouse gas emissions before issuing an exploration or mining title.

The objects of both Acts aim to 'encourage and facilitate' resource development – with a heavily qualified reference to 'having regard to the need to encourage ecologically sustainable development'. The objects also aim to 'ensure [mineral/ petroleum] resources are identified and developed in ways that minimise impacts on the environment'.[67]

However, there is no legislative object to limit greenhouse gas emissions or protect the climate. The absence of meaningful consideration, limits or emission reduction targets in the substantive law – in resource and related legislation – highlights the need for a new approach.

The way forward

EPLs and mining titles are two of the most important environmental controls linked to the planning system (though they are administered under other laws and agencies).

In other jurisdictions, principles like 'continuous improvement' and 'best available technology' are used to keep environmental standards up to date.[68] A similar approach could be adopted in NSW by imposing greenhouse gas emissions limits and load-based licensing fees on EPLs. Likewise, EPLs or development consent conditions could be modified to impose requirements for emissions avoidance, minimisation or offsets; and for monitoring, auditing and reporting.

There are various ways to put this in practice:

- via the EPA's EPL reviews, which occur at least every five years (or as a standard requirement when licensees seek to modify their EPLs);
- via development modifications, as a standard requirement when existing operations apply to the Department of Planning to modify their consents (as when mining companies seek to expand operations);

66 United States Environmental Protection Agency, *Overview of the Clean Air Act and Air Pollution Share* (2015) United States Environmental Protection Agency: https://www.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan (accessed March 2016).

67 See *Mining Act 1992* (NSW), s 3A; *Petroleum (Onshore) Act* 1991 (NSW), s 2A.

68 See EDO NSW, *Clearing the Air: Opportunities for improved regulation of pollution in NSW* (2012): http://www.edonsw.org.au/clearing_the_air_opportunities_for_improved_regulation_of_pollution_in_new_south_wales (accessed March 2016). See also EDOs of Australia, Submission to the National Clean Air Agreement, 17 April 2015: http://www.edonsw.org.au/anedo_submission_to_the_national_clean_air_agreement.

- via legislative amendments to the EP&A Act – to explicitly permit the Department of Planning to update consent conditions and require 'continuous improvement' of environmental standards; and/or
- requiring decision-makers to impose greenhouse gas emissions standards, limits and offsets in conditions when granting or modifying consents.

In addition, NSW resources law should include an object to develop resources only in a manner that is compatible with minimising greenhouse gas emissions (including fugitive and exported or scope 3 emissions), and reducing NSW's cumulative contribution to climate change. For example, as noted, NSW should not release new areas for extraction that will significantly increase emissions, given international agreements to avoid 1.5 to 2 degrees warming.

In concert with planning laws, applications for exploration and mining titles (and renewals) should also be required to address likely greenhouse gas emissions that a project will emit.[69]

Coal seam gas field, NSW

69 Licensing considerations would be coordinated with EIA and development approval considerations, to avoid unacceptable impacts early and make decisions on the best and most up-to-date information.

Recommendations

Recommendation 11

Mandate climate change and emissions as a consideration for assessing exploration or production title applications under mining laws. Before issuing a mining title, the Minister should be required to consider:

- likely emissions in the context of drawing down a state or national carbon budget;
- the scale, cost and timing of lifecycle greenhouse gas emissions from a project; and
- cumulative impacts of emissions with other past, present and approved projects.

Recommendation 12

Add greenhouse gases as pollutants in NSW pollution control laws, to recognise their contribution to environmental degradation and encourage behavioural change. In the absence of a carbon price, this should include load-based licencing fees for greenhouse gas emissions, consistent with the polluter pays principle.

Recommendation 13

Establish emissions standards and continuous improvement requirements for NSW power stations, where appropriate based on nationally consistent standards. Standards and requirements would be enforceable conditions on EPLs.

6. Compliance and enforcement

The current approach

There is insufficient focus on monitoring and enforcing compliance with development approvals and other licence conditions relating to greenhouse gas emissions. There has been a recent effort to improve the monitoring and enforcement capacity of the Department of Planning, but it is unclear if any additional resources are being directed to monitor and enforce conditions on greenhouse gas emissions. It is also unclear if there is sufficient data to do so.

The lack of emission reduction targets, strategic planning or development standards and conditions in the EP&A Act, means there is no limit on greenhouse gas emissions approved under the planning system. There is also no public monitoring of total emissions approved.

The way forward

A best practice system for accountability and quality assurance would build-in requirements to monitor, report on, and improve emission levels from high-emitting development and quantify all cumulative emissions – including via planning authorities, regulators, independent auditors and public reporting.

A mandatory greenhouse gas monitoring, reporting and auditing register should also be established for individual facilities with significant carbon footprints in NSW (with costs recovered by industry levy). This could monitor and publicly report on facility-level emissions, limits and compliance with development approvals, for operations above a certain pollution threshold. It would draw on and supplement data published by the National Greenhouse and Energy Reporting Scheme (**NGERS**).[70]

Recommendations

Recommendation 14

Establish a comprehensive greenhouse gas monitoring and auditing register to report on individual facilities with significant carbon footprints in NSW. This would draw on existing and new data, to track and report on approved and actual emissions.

70 NGERS publishes aggregate corporate data and limited facility-level reporting – for scope 1 and 2 emissions of certain power stations and high-emitting corporations (many of whom own multiple high-polluting facilities). See Australian Government Clean Energy Regulator, *National Greenhouse and Energy Reporting* Australian Government Clean Energy Regulator: http://www.cleanenergyregulator.gov.au/NGER (accessed 7 July 2016). For the latest NGER reports see Australian Government Clean Energy Regulator, *Greenhouse and energy information 2014-15* (2016) Australian Government Clean Energy Regulator: http://www.cleanenergyregulator.gov.au/NGER/Published-information/Reported-greenhouse-and-energy-information-by-year/greenhouse-and-energy-information-2014-15 (accessed May 2016).

References

1. Australian Government Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation, *State of the Climate 2014* (2014): http://www.bom.gov.au/state-of-the-climate

2. Australian Government Clean Energy Regulator, *Greenhouse and energy information 2014-15* (2016) Australian Government Clean Energy Regulator: http://www.cleanenergyregulator.gov.au/NGER/Published-information/Reported-greenhouse-and-energy-information-by-year/greenhouse-and-energy-information-2014-15

3. Australian Government Clean Energy Regulator, *National Greenhouse and Energy Reporting* Australian Government Clean Energy Regulator: http://www.cleanenergyregulator.gov.au/NGER

4. Australian Government Climate Change Authority, 'Some Observations on Australia's Post-2020 Emissions Reduction Target' (Statement by the Chair, Mr Bernie Fraser, 14 August 2015): http://www.climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/CFI/CCA-statement-on-Australias-2030-target.pdf

5. Australian Government Climate Change Authority, *Reducing Australia's Greenhouse Gas Emissions: Targets and Progress Review–Final Report* (2012): http://www.climatechangeauthority.gov.au/reviews/targets-and-progress-review-3

6. *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth)

7. *Climate Change Act 2010* (Vic)

8. *Climate Change and Greenhouse Emissions Reduction Act 2007* (SA)

9. *Climate Change and Greenhouse Gas Reduction Act 2010* (ACT)

10. *Climate Change (State Action) Act 2008* (Tas)

11. CSIRO, *New climate change projections for Australia* (27 January 2015) CSIRO: http://www.csiro.au/en/News/News-releases/2015/New-climate-change-projections-for-Australia

12. EDO NSW, *Clearing the Air: Opportunities for improved regulation of pollution in NSW* (2012): http://www.edonsw.org.au/clearing_the_air_opportunities_for_improved_regulation_of_pollution_in_new_south_wales

13. EDO NSW, *Past Cases – Climate Change and Energy* (2016) EDO NSW: http://www.edonsw.org.au/climate_change_energy_cases

14. EDO NSW, Submission on the Building Sustainability Index (BASIX) Target Review, 31 January 2014: http://www.edonsw.org.au/submission_on_the_building_sustainability_index_basix_target_review

15. EDOs of Australia, Submission to the National Clean Air Agreement, 17 April 2015: http://www.edonsw.org.au/anedo_submission_to_the_national_clean_air_agreement

16. Government of South Australia, *South Australia's Climate Change Strategy 2015 – 2050 – Towards a low carbon economy* (29 November 2015): http://www.environment.sa.gov.au/Science/Science_research/climate-change/climate-change-initiatives-in-south-australia/sa-climate-change-strategy

17. IPCC, 2014: *Climate Change 2014: Synthesis Report*. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, p 17: http://www.ipcc.ch/report/ar5/syr/

18. Moore, Tim and Ron Dyer, *The way ahead for Planning in NSW*, Independent Review Panel Report, Vol 1, (2012)

19. NSW Environment Protection Authority, *State of the Environment 2015* (2015): http://www.epa.nsw.gov.au/soe/soe2015/index.htm

20. NSW Government, *A New Planning System for NSW: Green Paper* (2012)

21. NSW Government, *A New Planning System for NSW: White Paper* (2013)

22. NSW Government, *Guidelines for the economic assessment of mining and coal seam gas proposals* (December 2015) Integrated Mining Policy: http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy

23. NSW Government, *Indicative Secretary's Environmental Assessment Requirements for state significant mining proposals* (October 2015) Integrated Mining Policy: http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy

24. NSW Government, *NSW Gas Plan* (2014)

25. NSW Government, NSW Legislation: http://www.legislation.nsw.gov.au

26. NSW Government, *Strategic Regional Land Use Policy* (2012)

27. NSW Government, *Strategic Statement on NSW Coal* (2014)

28. NSW Government, *Strategic Release Framework* (2015)

29. NSW Government, *Sydney over the next 20 years – A Discussion Paper* (2012)

30. NSW Government Coal Exploration Steering Group, *Improving NSW's Process to Allocate Coal Exploration Licences* (2014)

31. NSW Government Department of Planning and Environment, *Warkworth Continuation Project (SSD-6464) – Development Consent under Section 89E of the Environmental Planning and Assessment Act 1979*, 26 November 2015

32. NSW Government Department of Planning & Infrastructure, *BASIX Target Review: FAQs* (December 2013): http://www.basix.nsw.gov.au/iframe/images/4050pdfs/BASIX-Target-Review-GeneralQA_extension.pdf

33. NSW Government Office of Environment and Heritage, *Impacts of Climate Change* AdaptNSW: http://climatechange.environment.nsw.gov.au/impacts-of-climate-change

34. NSW Government Office of Environment and Heritage, *NSW emissions* AdaptNSW: http://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW/NSW-emissions

35. NSW Minerals Industry Taskforce, *Minerals Industry Action Plan* (2015)

36. *Renewable Energy (Electricity) Act 2010* (Cth)

37. Schmale, Julia, et al, 'Air pollution: Clean up our skies' (2014) 515 *Nature* 335: http://www.nature.com/news/air-pollution-clean-up-our-skies-1.16352.

38. Thorpe, Amelia and Kristy Graham, 'Green buildings – are codes, standards and targets sufficient drivers of sustainability in NSW?' (2009) *Environment and Planning Law Journal* 486, 488

39. United Nations Framework Convention on Climate Change Conference of the Parties 21, *Adoption of the Paris Agreement, 'Annex - Paris Agreement'*, Article 2 (FCCC/CP/2015/L.9/Rev.1)

40. United States Environmental Protection Agency, *Social Cost of Carbon* (2015) United States Environmental Protection Agency: https://www3.epa.gov/climatechange/EPAactivities/economics/scc.html

41. United States Environmental Protection Agency, *Overview of the Clean Air Act and Air Pollution Share* (2015) United States Environmental Protection Agency: https://www.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan

42. Victorian Government, 'Victoria's Net Zero by 2050 Emissions Reduction Target' (Announcement, 9 June 2016): http://www.delwp.vic.gov.au/news-and-announcements/net-zero-by-2050

43. Wilder, Martijn, Anna Skarbek and Rosemary Lyster, *Independent Review of the Climate Change Act 2010* (2015)

44. World Resource Institute, *Greenhouse Gas Protocol*: http://www.ghgprotocol.org/

45. *Aldous v Greater Taree City Council* (2009) 167 LGERA 13

46. *Gray v The Minister for Planning, Director-General of the Department of Planning and Centennial Hunter Pty Ltd* (2006) 152 LGERA 258

47. *Hunter Environment Lobby Inc v Minister for Planning* [2011] NSWLEC 221 (24 November 2011)

48. *Hunter Environment Lobby Inc v Minister for Planning* [2012] NSWLEC 40 (13 March 2012)

49. *Huntlee Pty Ltd v Sweetwater Action Group Inc; Minister for Planning and Infrastructure v Sweetwater Action Group Inc* (2011) 185 LGERA 429

50. *Minister for Planning v Walker* (2008) 161 LGERA 423

51. *Walker v Minister for Planning* (2007) 157 LGERA 124

52. *Clean Air Act* (US)

53. *Climate Change (Scotland) Act 2009* (Scot)

54. *Environment (Wales) Act 2015* (Wales)

55. *Environmental Planning & Assessment Act 1979* (NSW)

56. *Environmental Planning and Assessment Regulation 2000* (NSW)

57. *Local Land Services Act 2013* (NSW)

58. *Mining Act 1992* (NSW)

59. *Natural Resources Commission Act 2003* (NSW)

60. *Petroleum (Onshore) Act 1991* (NSW)

61. *Planning Bill 2013* (NSW)

62. *Protection of the Environment Administration Act 1991* (NSW)

63. *Protection of the Environment Operations Act 1997* (NSW)

64. *State Development and Public Works Organisation Act 1971* (Qld)

65. *State Environmental Planning Policy (State and Regional Development) 2011*

66. *State Environmental Planning Policy (Infrastructure) 2007*

67. *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*

68. *State Environmental Planning Policy (Building and Sustainability Index) 2004*

69. *State Environmental Planning Policy No 44—Koala Habitat Protection*

70. *Sustainable Planning Act 2009* (Qld)

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