



**AUSTRALIAN
CONSERVATION
FOUNDATION**

The NSW Independent Planning Commission's contribution to global greenhouse gas emissions

Executive summary

Empirical analysis by the Australian Conservation Foundation confirms that since the Paris Agreement entered into force on 4 November 2016, the Independent Planning Commission (IPC) of New South Wales and its predecessor, the Planning Assessment Commission, have approved 3.2 billion tonnes of CO₂-e.¹

If the IPC approves all major fossil fuel projects currently being assessed in NSW, it will approve a further 1.8 billion tonnes of CO₂-e.

Since 2016, the IPC has approved 85% of fossil fuel projects proposed.

If the IPC approves all new projects under review, the IPC will be responsible for 1% of the remaining global carbon budget to limit global warming to 1.5°C.²

This estimate is based on data collected from the environmental impact statement for projects approved and under assessment since 2020. It is a conservative estimate of total emissions produced.

This analysis confirms IPC decision-making continues to have a significant impact on global greenhouse gas (GHG) emissions.

The IPC is, therefore, responsible for a significant portion of anthropogenic climate change, and its impacts on the environment and on humans.

The New South Wales Government should require the IPC to assess the global warming implications of the projects it assesses.

Approving 1% of the remaining global carbon budget is unacceptable. It will result in climate damage and it is not in the interests of the people of NSW.

¹ Scope 1, 2 and 3 emissions

² Estimate includes projects approved from 2020 and is measured against the 2020 global carbon budget used in the Intergovernmental Panel on Climate Change's 2021 report.

The Independent Planning Commission's role

The Independent Planning Commission was established under Part 2, Division 2.3 of the *Environmental Planning and Assessment Act 1979* on 1 March 2018. From that date, the IPC is the successor body to the former Planning Assessment Commission (PAC) in assessing and approving NSW's largest projects. The IPC operates independently to other government departments, including the NSW Department of Planning, Industry and Environment (DPIE).

The IPC is required to be independent and objective in its decision-making and must make decisions on the merits of individual projects that best serve the NSW people.³

The IPC's functions include:

1. determining State Significant Development applications where there is opposition from the community;
2. conducting public hearings for development applications and other planning and development matters; and
3. providing independent expert advice on any planning matter when requested by the NSW Minister for Planning and Public Spaces.

The IPC is the consent authority for State Significant Development applications where:

1. there are 50 or more unique public objections to the application; and/or
2. the Applicant has made a reportable political donations disclosure; and/or
3. the Local Council has objected to the application.

The IPC is also the consent authority for modifications of original applications where the applicant has made a reportable political donations disclosure.

Because of these conditions, the IPC hears the most significant and controversial projects in NSW. These range from extensions of highways, new housing developments to coal and gas projects. The IPC, therefore, has significant power to approve or refuse projects that have a significant impact on the environment.

One of these impacts is climate change. By refusing or approving consent to the development of coal and gas projects, the IPC can limit or contribute to the increase of emissions in NSW and across the world—and the dire effect of these emissions on the environment and humans.

³ https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/general/whats-new/ipc_dpie-mou.pdf?la=en&hash=E395169CC688CAFC0519C449E37901BC
<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/general/ipc-strategic-plan-20202023.pdf?la=en&hash=71213E831BC67888C94FF9BB3CB1DCED>

Decision maker's duty of care

In *Sharma v Minister for the Environment (Sharma)*,⁴ the Federal Court found that the Commonwealth Environment Minister owes Australian children a duty of care when exercising her approval powers in relation to a controlled action under Australia's Commonwealth environmental law. This decision sets the precedent that the IPC, and other government decision makers, should consider whether a similar duty applies to all coal (and gas) projects currently before them.

Australia's international obligations

Article 2(1) of the Paris Agreement imposes an obligation on all state parties to ensure that the increase in the global average temperature is well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. Further, Article 4(1) of the Paris Agreement calls for parties to rapidly reduce emissions to achieve a balance between anthropogenic emissions and the carbon sequestered by sinks in the second half of this century (i.e. 'net zero').

Australia signed the Paris Agreement on 22 April 2016 and ratified it on 9 November 2016. Under the Paris Agreement, each party commits to 1.5°C to well below 2°C temperature rise by reducing its greenhouse gas (GHG) emissions through National Determined Contributions (NDC). Australia's NDC is to reduce GHG emissions by 26–28% below 2005 levels by 2030.

NSW climate change policy framework

NSW has endorsed the Paris Agreement and its obligations through the [NSW Climate Change Policy Framework](#). The policy outlines NSW's long-term objectives to achieve net-zero emissions by 2050. NSW has committed to implement emissions savings policies, embedding these in government decision-making, and to develop a benchmark value for emissions saving and apply this consistently in government economic appraisal.

On 29 September 2021, the NSW government committed to cutting emissions to 50% of its 2005 levels by 2030. It did not go as far as requiring planning decisions to be made consistent with the target and is purported to have factored in expected growth of the coal sector.

The carbon budget

One method used to determine if the world is achieving its 1.5°C to well-below 2°C temperature targets by 2050 is through the carbon budget approach. The approach is based on the well-proven relationship between an increase in GHG emissions and global average surface temperature. That is, if a certain amount of GHG emissions is produced, global average surface temperature will increase by a certain percentage. Thus, the carbon budget is essentially the maximum amount of GHG emissions that can be produced while ensuring that we achieve our temperature targets of limited global average surface temperature to

⁴ *Sharma by her litigation representative Sister Marie Brigid Arthur v Minister for the Environment* [2021] FCA 560; *Sharma by her litigation representative Sister Marie Brigid Arthur v Minister for the Environment (No 2)* [2021] FCA 774.

1.5°C to well-below 2°C above pre-industrial temperatures. Once the carbon budget has been exhausted, any further emissions must be net-zero to avoid exceeding the temperature target.

While this report does not seek to comment on the science behind the carbon budget, it is sufficient to note that the carbon budget required to meet a temperature target is influenced by at least three areas of uncertainty. These are the probability of meeting the target, accounting for other greenhouse gas emissions, and feedbacks in the climate system.

The Intergovernmental Panel on Climate Change (2021) estimates that to limit global warming to 1.5°C⁵ the remaining carbon budget from 2020 is between 400 GtCO₂-e and 300 GtCO₂-e. If the globe limits its emissions to 400 GtCO₂-e from 2020, the IPCC predicts there is a 67% chance of limiting global warming to 1.5°C, and, if limited to 300 GtCO₂-e there is an 83% chance.⁶

Scope 1, 2 and 3 emissions

The total GHG emissions associated with an individual project are usually grouped into three categories. Scope 1 emissions are direct emissions produced by the project, including combustion of fuels in vehicles, fugitive methane emissions and the use of explosives. Scope 2 emissions cover indirect emissions from the project such as emissions caused by the generation of electricity that is purchased to be used onsite. Scope 3 emissions are further indirect emissions from the project further down the supply chain including from the transportation of materials and the burning of coal and gas overseas or in Australia.

Importantly, the environmental impact of GHG emissions is the same regardless of its 'scope'.

Scope of analysis

This report reviewed all fossil fuel projects with GHG impacts that have been assessed by the IPC or PAC since 4 November 2016 (the date the Paris Agreement came into force), as well as fossil fuel projects with GHG impacts that are currently awaiting a decision in NSW (as of 21 December 2021). Fossil fuel projects are modifications to, extensions of and new greenfield coal and gas projects.

Not all the proposed projects will require an IPC approval. However, due to the size and scope of these projects, most will likely trigger an IPC decision requirement by meeting one of the four conditions listed above.

For comparison to the global carbon budget, this report considers projects approved from 2020 and projects currently under assessment and measures the data against the most contemporaneous carbon budget provided by the IPCC (which is for carbon emissions from 2020).

⁵ Above pre-industrial levels

⁶ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf, page 41

Data

This report seeks to understand and provide a quantitative estimate on the contribution of the IPC's decision-making to global GHG emissions.

Data collected for this report was extracted from each project's environmental impact statement (EIS) that was submitted to the IPC or the PAC, sourced from the Independent Planning Commission's website;⁷ and DPIE Major Project Assessment website.⁸

Each project's estimated Scope 1, Scope 2 and Scope 3 emissions were extracted. Most project EISs included a total life of project GHG emission estimate. For projects where GHG emissions were provided on a per annum basis, that figure was multiplied by the project's lifetime as provided for in the development consent or notice of modification. For projects where there was a discrepancy between predicted emissions and the emissions stated in the IPC's statement of reasons, the latter value was chosen.

Limitations

It is important to note that the calculations are a conservative estimate of total emissions approved. The reasons are outlined below.

First, some of the approved projects either did not disclose or did not fully disclose their total greenhouse gas emissions.

Second, the agreed global warming potential (GWP) of methane—the main contributor to Scope 1 emissions for most of the fossil fuel projects in the list—has changed over time. In 2007 the GWP was 25 and in 2015 it was formally increase to 28 in Australia. This means for older EIS estimates, the tCO₂e of methane could be underestimated by 12%.

Third, the Australian and internationally recognised methods for calculating emissions have changed over time. This occurs due to new GWPs, updates in the science around sources of emissions and new methods for calculating emissions. For example, open-cut coal mines in NSW had an emissions factor of 0.045 in 2014, 0.054 between 2015 and 2019 and in October 2020 was increased to 0.061 tCO₂e per tonne of run of mine (ROM) coal. This means that older EISs may underestimate the total amount of emissions produced.

Fourth, there may be natural variance to the actual emissions produced. For example, there are natural variances inherent in the mining process. The coal seam being mined may be more or less methane-rich than was predicted. This means the estimated figure may not be entirely accurate.

⁷ Independent Planning Commission, 'Projects' (webpage) <<https://www.ipcn.nsw.gov.au/projects>>.

⁸ NSW Planning & Environment, 'Major Project Assessments' (webpage)

<http://majorprojects.planning.nsw.gov.au/index.pl?action=search&page_id=&search=&authority_id=&search_site_type_id=9&reference_table=&status_id=10&decider=&from_date=1%2F12%2F2015&to_date=16%2F6%2F2021&x=24&y=19>.

Data analysis

Table 1 below provides a summary of the total Scope 1, Scope 2, Scope 3 and total combined emissions estimates from the 33 projects that fell within the scope of the report and had published GHG emission estimates.

27 modifications to, extensions of and new greenfield coal and gas projects (with GHG impacts) were referred to the IPC for approval between 4 November 2016 and 21 December 2021. Of these 27 projects, four have been rejected. These are the Rocky Hill Coal Project, the Bylong Coal Project, the Dendrobium Extension Project and the Hume Coal Project. Thus, the IPC and the PAC has approved 85% of all coal and gas projects that have been referred to it for approval since 4 November 2016.

As of 21 December 2021, six modifications to, extensions of and new greenfield coal and gas projects (with GHG impacts) were awaiting decision. However, as discussed above, not all these projects will be referred to the IPC.

Total emissions

Since 4 November 2016, the total Scope 1, Scope 2 and Scope 3 emissions of the 23 approved projects is at least 3,190,782,573 tonnes of CO₂-e or approximately 3.2 billion tonnes of CO₂-e.

If all six projects awaiting decision are approved, they will emit at least a further 1,840,862,293 tCO₂-e.

The combined estimated emissions of the 23 relevant projects already approved and six projects potentially to be approved by the IPC totals at least 5,031,644,866 tCO₂-e, equivalent to approximately 5 GtCO₂-e.

As mentioned, the most recent Intergovernmental Panel on Climate Change (IPCC) report provides figures for the remaining GHG that can be emitted from 2020 to secure a 67% and 83% likelihood of limiting global warming to 1.5°C above pre-industrial levels.

It is instructive to understand how the GHG emissions approved (and seeking approval) from 2020 onwards in NSW fit into our most up-to-date understanding of global emissions constraints.

Since the beginning of 2020, the IPC has approved 1,034,192,126 tonnes of CO₂-e approximately equivalent to 1 GtCO₂-e. If all the projects awaiting decision are approved, they will contribute a further 1,840,862,293 tCO₂-e.

That means the IPC will, if it approves the six proposed projects awaiting decision as of 21 December 2021, be responsible for 2,875,054,419 tCO₂-e from 2020.

This is equivalent to 0.7% of the remaining global carbon budget of a 67% likelihood of limiting global warming to 1.5°C above pre-industrial levels. In the scenario in which we have an 83% chance of limiting global warming to 1.5°C above pre-industrial levels, this 2.9 GtCO₂-e is equal to a full 1% of the remaining global carbon budget.

Table 1: Summary of data analysis

	Number of projects	Scope 1 and 2 (t-CO ₂ -e)	Scope 3 (t-CO ₂ -e)	Total emissions (t-CO ₂ -e)
Approved projects (Nov 2016 to Oct 2021) ⁹	23	107,644,617	3,083,137,956	3,190,782,573
Approved projects (Jan 2020 to Oct 2021)	7	64,158,948	970,033,178	1,034,192,126
Refused projects ¹⁰ (Nov 2016 to Oct 2021)	4	30,992,246	581,819,106	612,811,352
Future projects ¹¹	6	63,055,948	1,777,806,345	1,840,862,293

21 December 2021

This report was prepared by ACF's Environmental Investigations Unit. We are immensely grateful to our volunteer Environmental Investigator Mr Jackson Balme for his conceptual thinking and hard work on this project.

⁹ Drayton South Coal Mine, Wambo Mine MOD 12, Wilpinjong Extension, Springvale Mine Extension MOD 1, Wallarah 2 Coal Project, Invincible Coal Mine Southern Extension, Wambo Coal Mine MOD 17, Hunter Valley Operations South MOD 5, Integra Underground Mine MOD 8, Mount Pleasant Coal Mine Extension of life MOD 3, United Wambo Open Cut Coal Project MOD 16 and 3, Rix's Creek South Coal Mine MOD 10, Moolarben Coal Mine Stage 1 MOD 14 current with Stage 3, Ulan Coal MOD 4, Dartbrook Coal Mine MOD 7, Rix's Creek South Coal Project, Glendell Coal Mine MOD 4, Vickery Extension Project, Narrabri Gas Project, Russell Vale Underground Expansion, Maxwell Underground Coal Mine, Tahmoor South Coal Project second referral & Mangoola Coal Continued Operations

¹⁰ Rocky Hill Coal Project, Bylong Coal Project, Dendrobium Extension Project & Hume Coal Project and Berrima Rail Project

¹¹ Mount Pleasant Optimisation Project, Narrabri Underground Mine Stage 3 Extension Project, Newstan Mine Extension Project, Wongawilli Coal Mine MOD 2, Glendell Continued Operations Project & Bogabri MOD 8