Environment Protection Authority

Proposed Climate Change Licensee Requirements

CONSULTATION DRAFT

July 2025

NSW GOVERNMENT

Acknowledgement of Country

The NSW Environment Protection Authority acknowledges the Traditional Custodians of the land on which we live and work, honours the ancestors and the Elders both past and present and extends that respect to all Aboriginal people.

We recognise Aboriginal peoples' spiritual and cultural connection and inherent right to protect the land, waters, skies and natural resources of NSW. This connection goes deep and has since the Dreaming.

We also acknowledge our Aboriginal and Torres Strait Islander employees who are an integral part of our diverse workforce and recognise the knowledge embedded forever in Aboriginal and Torres Strait Islander custodianship of Country and culture.

Aboriginal artwork by Worimi artist Gerard Black

Contents

How to make a submission

We invite you to give us feedback on the proposed requirements set out in this document.

Submissions can be:

- made online on the Have Your Say page
- posted to

  Manager, Climate Change Policy
  NSW Environment Protection Authority
  Locked Bag 5022
  Parramatta NSW 2124
- emailed to climatechange.review@epa.nsw.gov.au.

Purpose

This document outlines the NSW Environment Protection Authority's approach to introducing climate change-related requirements on environmental protection licensees under the *Protection of the Environment Operations Act 1997* (POEO Act).

These proposed requirements deliver on commitments in the EPA's *Climate Change Action Plan 2023–26.* They set out the pathway the EPA and our licensees will take to contribute to achieving NSW's net-zero emissions targets.

EPA licensees contribute 50–60% of the greenhouse gas emissions in NSW. The EPA has a statutory duty to develop environmental quality objectives, guidelines and policies to protect the environment from the threat of climate change. We have a responsibility to work with our regulated community and stakeholders to address environmental issues.

The principles underpinning our approach are:

- **Evidence-based**: requirements on licence holders should be evidence-based
- **Enforceable**: the requirements are clear to comply with and to enforce
- **Staged implementation based on risk**: the implementation of these requirements will be phased in. The timing of the stages will be based on the size and impact of the premise's emissions and will ensure that licensees are making a meaningful contribution to NSW's greenhouse gas emission reduction targets. Staged implementation will support compliance by gradually building licensee capability
- **Avoiding duplication**: licensees will be supported to repurpose existing reporting material.

The proposed requirements are a major component of the EPA's approach to ensuring licensees reduce emissions and improve their climate change resilience. They are complemented by the EPA's climate change mitigation and adaptation guidance material, and the climate change assessment requirements for planning and development applications. The three components fulfil specific actions in the EPA's *Climate Change Action Plan 2023–26*.

Planning and development Action 5c	Climate change requirements Actions 5b, 16 & 18	Guidance Actions 17 & 24
• *NSW Guide for Large Emitters: Guidance on how to prepare a greenhouse gas assessment as part of NSW environmental planning processes* • Planning Secretary's Environmental Assessment Requirements (SEARs)	• Annual reporting • Climate Change Mitigation and Adaptation Plans • Specific mitigation actions • Emissions measurements • Greenhouse-gas emission limits on licences	• *Greenhouse Gas Mitigation Guide for NSW Coal Mines* • Other guides and sectors as required

Who these requirements apply to

These requirements will apply to the about 200 premises that each emit 25,000 tonnes or more of scope 1 and scope 2 emissions of carbon dioxide equivalent (CO_2-e) per year **in any year over the previous three financial years**. Although making up a small number of our licensees (about 200 of approximately 2,000 licensees), licensed facilities that emit over 25,000 tonnes CO_2-e per year represent the vast majority of emissions emitted from EPA's licence holders and about 50% of NSW's scope 1 (direct) emissions.

The requirements will be phased in for different groups of licensees via licence conditions and regulations. Some will be implemented in the short term and others in the medium to longer term.

This approach recognises that we are in the early stages of regulating for climate change, and working our way to doing this as efficiently and effectively as possible. The evidence and capabilities needed to regulate different aspects of climate change impacts will continue to develop. Some of the regulatory requirements that will be implemented in the longer term rely on foundational activities being progressed in the short to medium term.

A complementary approach is needed to support NSW's climate trajectory

Climate change is already affecting businesses directly by increasing the frequency and severity of natural disasters such as bushfires, droughts, heatwaves, floods and windstorms. These events damage property and equipment, overload safety and monitoring systems, and reduce operational days.

Indirectly, climate change will continue to disrupt domestic and international supply chains, create competition between industries and communities for limited resources, raise insurance premiums and operating costs, and expose businesses to greater environmental risk.[1]

Reducing the ongoing emission of anthropogenic greenhouse gases to the atmosphere can reduce the severity of climate change, protecting the environment, communities, and the economy.[1] We need to limit the rise of global average temperatures to between 1.5 and 2°C to avoid worsening climate change. The NSW Government has committed to more ambitious greenhouse gas emission reduction targets than the Australian Government, which are set out in the *Climate Change (Net Zero Future) Act 2023* (Net Zero Act). These are:

- 50% reduction on 2005 net emissions levels by 30 June 2030
- 70% reduction on 2005 net emissions levels by 30 June 2035
- Net-zero emissions by 30 June 2050.

The latest projections from the NSW Department of Climate Change, Energy, the Environment and Water show a significant risk that NSW is not on track to meet its 2030 and 2035 targets without

[1] IPCC 2018, Special Report – Global Warming of 1.5°C, Intergovernmental Panel on Climate Change, Geneva

further action by the Government and the private sector.[2] NSW is gradually reducing overall emissions, but more work is needed to correct our course to stay on target.

The EPA recognises that the decarbonisation journey will be complex and varied for different industries and businesses. Decarbonisation requires a range of skills, strategic planning and financial backing. In some industries, technology to reduce emissions is available and commercial. In other industries, technologies may still be in the development stage, or they may not yet be commercially viable or mature enough for widespread adoption.

Nonetheless, for businesses, embracing decarbonisation is crucial for future success. Changing social values and consumer preferences have increasingly emphasised sustainability and net-zero goals, pushing companies toward emissions reduction. Although reducing emissions may increase costs in the short term, there is an urgency to progress greenhouse gas mitigation and climate change adaptation. The longer we wait, the more difficult and expensive greenhouse gas abatement and climate resilience will be for businesses, consumers and the environment.

To effectively decarbonise the economy, a complementary approach is needed that integrates a variety of strategies and tools. This involves pairing the EPA's regulatory action with government incentives and targeted support for emerging technologies and practices.

The EPA's regulatory approach provides a well-signalled future pathway that allows businesses to take climate action into account in their business planning. The EPA will develop mitigation guides for specific sectors to complement other NSW Government agency guidance. This will provide the evidence base for action and help licensees understand the specific action each sector can take. Financial and other support may also be available from state and Australian Government programs that help licensees reduce their emissions. Forms of support are discussed later in this document.

Why state-based climate-related requirements are needed for facilities regulated by the Australian Government

The EPA currently regulates about 2,000 licensees (2024). About 150 of these licensees emit more than 25,000 tonnes CO_2-e scope 1 and scope 2 emissions per year and report to the National Greenhouse and Energy Reporting Scheme (NGERS). Among these 150 licensees are 40–50 that also report to the Safeguard Mechanism (>100kt CO_2-e scope 1 emissions per year). We estimate that there are another 40–50 licensed premises that emit above 25,000 tonnes CO_2-e scope 1 and scope 2 emissions a year that are not required to report to NGERS.

NGERS is the national framework for reporting greenhouse gas emissions and energy consumption. As a reporting tool only, NGERS does not require facilities to reduce emissions or electricity consumption. It also does not require facilities or operators to publish or report their emission reduction plans.

The Safeguard Mechanism is the Australian Government's scheme for reducing emissions from Australia's largest-emitting industrial facilities. It sets 'baselines' – net limits on the greenhouse gas

[2] NZC 2024, 2024 Annual Report, Net Zero Commission, November 2024, Parramatta

emissions that these facilities can emit. These baselines will gradually decline over time, reducing emissions and helping Australia reach our national emissions reduction target.

The Safeguard Mechanism only applies to facilities that have very large emissions. It does not require facilities to outline their plans to reduce emissions in the future or to adapt to climate change. The scheme also does not require onsite emissions reductions, as it does not limit the number of offsets and Safeguard Mechanism Credits that can be used to meet a baseline. The Safeguard Mechanism does not require facilities or operators to publish or report their emission reduction plans.

The Safeguard Mechanism alone will not be enough to help NSW meet its emission reduction targets. Our approach supports the NSW Government's legislated targets for emissions reductions, which are more ambitious than the Australian Government's targets and build upon the work required under Safeguard.

The licensee requirements outlined below will bridge these gaps and progressively require emissions reduction and reporting of emissions, supporting licensees to meet the NSW legislated emissions reduction targets.

Requirements and support

The EPA is committed to supporting our licensees to effectively manage and reduce their greenhouse gas emissions and build their climate resilience. Five types of climate change requirements will be phased in over time:

1. Annual climate change emissions reporting
2. Climate Change Mitigation and Adaptation Plans
3. Specific mitigation actions
4. Emissions measurement
5. Greenhouse gas emission limits on licences.

1. Annual climate change emissions report

From February 2026, we are proposing to require certain licensees to provide the EPA with an annual climate change emissions report that includes the following, broken down by greenhouse gas type and activity as appropriate:

- scope 1 (direct) emissions
- scope 2 emissions
- energy consumed
- energy produced
- emissions intensities
- energy intensities.

The intention is for the EPA to receive the same data that is provided to the Clean Energy Regulator in order to limit regulatory burden. Refer to the Appendix, *Draft requirements*, for further information and details.

The annual climate change emissions report should also include a short commentary on the reasons for significant changes to emissions, such as new mitigation measures in place or an increase in production during the reporting period.

Why is this requirement needed?

Reporting greenhouse gas emissions and energy use directly to the EPA under the POEO Act is critical to ensuring the EPA can work with licensees toward meaningful climate action.

Requiring NSW licensees to report on their greenhouse gas emissions and energy use will establish standardised and reliable emissions and energy data for EPA licensees. It will inform EPA decision-making on future requirements by establishing a baseline with which to compare future emissions, allowing us to identify trends, benchmark performance, and identify where intervention is needed. The EPA will analyse and publish this data to improve transparency and accountability.

The details of the annual reporting requirement are set out in the Appendix, *Draft requirements*.

2. Climate Change Mitigation and Adaptation Plans

From 31 October 2026, the EPA is proposing to progressively require our licensees to prepare, implement and report progress against Climate Change Mitigation and Adaptation Plans.[3] Licensees would be required to publish their plans and progress reports, and update their plans every three years.

Within the plans, licensees would be required to publish their current and estimated future emissions, existing and planned mitigation measures, and establish emissions reduction goals. They would also be required to submit their estimated future emissions to the EPA to support NSW Government emissions modelling work.

We know that some of our regulated community already have similar plans in place. Any documentation prepared under other schemes that satisfies the Climate Change Mitigation and Adaptation Plan requirements will be acceptable to the EPA as long as any gaps are addressed in a published addendum.

The EPA will progressively develop greenhouse gas mitigation guidance for key sectors. Once published, we will require licensees to benchmark the mitigation actions in their plans against the guide. Over time, some of the actions in the guides will be put into regulation or as conditions on licences over time. Licensees must implement mitigation actions set out in regulation and include these mandatory actions in their plan.

The Climate Change Mitigation and Adaptation Plan requirements will initially focus on mitigation requirements for large emitters (released at the same time as this document). Over time, the EPA will release guidance on adaptation. The timing and content of future requirements will be developed in consultation with industry and the community.

Our *Climate Change Mitigation and Adaptation Plan – Proposed Mitigation Requirements* document is available on the EPA's *Have Your Say* webpage.[4]

Licensees can apply to the NSW Government's High Emitting Industry Fund to seek financial support for implementing actions identified in Climate Change Mitigation and Adaptation Plans. Licence holders required to develop a Climate Change Mitigation and Adaptation Plan by October 2027 will also be able to seek financial support to develop their plans. This funding will be time limited and be available towards the end of 2025.

Why is this requirement needed?

Requiring a plan is a first and critical step in ensuring licensees investigate and understand the options they have available to decarbonise. The EPA surveyed licensees in 2023 and found that 75% did not have an emissions reduction plan.[5] Survey respondents also said they would like support and guidance on how to create emissions reduction and climate change risk management plans.

The Climate Change Mitigation and Adaptation Plan approach does this and helps standardise the information that is shared. Public reporting of the Climate Change Mitigation and Adaptation Plans also ensures transparency and provides an incentive for licensees to remain accountable to their

[3] NSW EPA 2023, EPA Climate Change Action Plan 2023–26, NSW Environment Protection Authority, Parramatta - See Action 5(b)

[4] https://yoursay.epa.nsw.gov.au/

[5] NSW Government, Climate Change Survey results, NSW EPA website, accessed 29 May 2025

public commitments. A study of UK-incorporated listed firms found that simply requiring businesses to publicly disclose their emissions led to an 8% reduction in their emissions.[6] These plans will also help inform the EPA's evolving climate change response by allowing us to identify good performance and lift standards across the board.

3. Specific mitigation actions

The EPA will develop targeted mitigation requirements for industry sectors to implement specific technologies, processes or emission actions by specific dates. These measures will be tailored to each sector or licensee where necessary, acknowledging the unique challenges and opportunities that they each face.

These requirements will be evidence-based and will drive emissions reductions in specific sectors, directly supporting NSW's greenhouse gas emissions reduction efforts. Any proposed new requirements will be signalled well in advance to provide suitable lead-in time for businesses and related markets to adjust. These requirements will be subject to public consultation and opportunity for community and industry input.

We recognise the importance of signalling these requirements in advance of their implementation date. Once a licensee is required to implement a specific mitigation action, it may remove the ability for that licensee to access NSW and Australian Government grant funds and may restrict a licensee's ability to earn Australian Carbon Credit Units under Australian Government programs.

These requirements will be implemented on an industry-by-industry basis as technology improves. The first of these requirements will focus on the coal mining sector, supported by the coal mining greenhouse gas mitigation guide. This guide includes proposals that could be broadened to apply to the broader mining sector or other industries in future mitigation guides that will be subject to public consultation.

Licensees may be eligible for funding support for some of the mitigation actions they implement; for example, the NSW Government's High Emitting Industries Grants Fund which is available for large-emitting facilities.

Why are these requirements needed?

Emissions reduction is critical to meeting NSW's legislated targets. Emissions reduction should be evidence-based, industry-specific, and feasible to implement. These requirements are intended to drive down emissions directly and encourage abatement actions, while recognising that each sector will be subject to different opportunities, risks and time frames. As the EPA develops emissions-mitigation guidance and builds a robust evidence base of emissions data, and as available technology becomes market-ready, we will introduce targeted mitigation action requirements.

4. Emissions measurement

Over time, as technology, capabilities and evidence evolve, the EPA will progressively require facility-level greenhouse gas monitoring for certain groups of licensees. This means licensees would

[6] Downar, B., et al 2021, The impact of carbon disclosure mandates on emissions and financial operating performance, *Review of Accounting Studies,* volume 26, 1137–1175, 5 August 2021

measure some of their onsite emissions rather than relying on estimates used for their climate change annual emissions reporting (see Box 1).

As a first step, the NSW will progressively establish regional greenhouse gas monitoring equipment networks.

Regional networks will provide ongoing information on regional greenhouse gas concentrations and help distinguish between the sources of emissions in a region. (See Box 2.) As for existing NSW-based air monitoring networks, costs will be recovered from industry once the networks are established and operational. The greenhouse gas monitoring networks are intended to help contribute to the science around reducing uncertainty in fugitive emissions estimations. The NSW Government will undertake further consultation on the establishment of the greenhouse gas monitoring network before it is established.

Over time, as technology improves, monitoring requirements may also be put in place for other key sources of fugitive methane, such as:

- surface and underground mining
- wastewater treatment facilities
- landfills.

Why is this requirement needed?

Fugitive methane is a priority for the EPA because methane is a potent greenhouse gas. Per molecule, methane can warm the Earth faster than carbon dioxide. Underground coal mines in NSW release about 46% of EPA licensees' methane emissions.

As part of its recent review of 59 coal mine licences across the Hunter, Central West and Illawarra, the EPA publicly consulted with stakeholders and the community on the regulation of coal mines in NSW. During the consultation, we heard feedback about the need to monitor fugitive emissions.

Fugitive methane is inherently challenging to measure due to the diffuse and unpredictable nature of its sources. Unlike point-source emissions, such as those from smokestacks or exhaust vents, fugitive methane emissions can arise from a variety of locations, including open-cut mines, wells, pipelines and other infrastructure. These emissions can occur intermittently and at varying magnitudes, making it difficult to consistently and accurately detect and quantify them.

The methods used to report emissions to NGERS are based on estimates, and actual emissions can differ from these figures.[7] Improved measurement of fugitive methane emissions will:

- improve the accuracy and reduce uncertainty around estimation methodologies
- support the EPA's regulatory actions – the EPA's ability to take regulatory action or tailor support for sectors is limited when there are high levels of uncertainty
- support future regulations such as implementing sector budgets and targets and licence limits.

The EPA engaged CSIRO to conduct a review of methane measurement technologies for fugitive methane emissions.[8] This review has identified that to reduce uncertainty around emissions estimations, the emissions reported under NGERS could be supplemented by a combination of

[7] CCA 2023, 2023 Review of the National Greenhouse and Energy Reporting Legislation, Climate Change Authority, December 2023, Canberra

[8] NSW EPA 2025, Enhancing fugitive methane monitoring, NSW Environment Protection Authority, Parramatta

facility-level, local and regional greenhouse gas measurement techniques. Regional networks can help detect the greenhouse gases in the air in a region and provide long-term information on greenhouse gas levels. This can help identify emission hotspots. Once the networks are established, the NSW Government will work with experts to explore inverse modelling methodologies to identify emissions from key facilities captured by the networks. This work will be done in consultation with other jurisdictions and the Australian Government. Learnings from this work will be provided to the Australian Government. Facility-level measurement, coupled with background information from the regional networks and inverse modelling, could enable more detailed estimation of emission sources at individual sites.

Facility-level measurement requirements (except as per below) would be implemented once the regional networks have collected several years of data.

This work is intended to support and complement the Australian Government's review of measurement and emission estimation methods.

Box 1: Fugitive methane emission estimation methods

Emission estimates, particularly those that use emission factors, may not be representative of actual emissions from individual facilities. In 2024, the Clean Energy Regulator amended the Measurement Determination to phase out the use of Method 1 for all open-cut coal mines covered by the Safeguard Mechanism by July 2026. The Climate Change Authority recommended changes to further enhance the accuracy of fugitive methane emission estimates.[9] These mines will switch to either Method 2 or 3, which are more sophisticated and robust methods. The Australian Government has committed to reviewing NGER methods for estimating fugitive methane emission sources, starting with the industry-based sampling requirements and standards for open-cut coal mining.[10] The EPA will support the Australian Government in the review of measurement and emission estimation methods.

4.1 Continuous methane concentration in ventilation air measurement for underground coal mines

The EPA proposes that from 31 October 2026 all underground coal mines that emit more than 25,000 tonnes of CO_2-e per year, including mines in suspended operations (care and maintenance), continuously measure methane concentrations in ventilation air with certified instrumentation, to ensure fugitive methane estimations are as accurate as possible and fugitive methane emissions abatement measures are assessed with a high confidence.

The EPA is considering whether to exempt underground mines from this requirement if they are either:

- located in the Western Coalfields – coal seams in the Western Coalfields generally have a lower methane and gas content due to their geology
- due to close within 2 years of this requirement coming into place.

[9] Australian Government, Amendments under the National Greenhouse and Energy Reporting Scheme (NGERS), Department of Prime Minister and Cabinet website, accessed 29 May 2025

[10] Australian Government 2024, Australian Government response to the Climate Change Authority's 2023 Review of the National Greenhouse and Energy Reporting legislation, Australian Government, August 2024, Canberra

Consultation question

Should underground coal mines in the Western Coalfields be required to continuously monitor methane concentrations from ventilation shafts for reporting purposes given the low methane content? Are there instances where this requirement would not be practical or feasible for specific underground mines?

Why is this requirement needed?

Methane concentrations in ventilation air are highly variable. This limits the accuracy of periodic measurement.

Currently, under the NGER Scheme, mines have the option to do periodic or continuous emissions monitoring to estimate their fugitive methane emissions.[11] The number of samples taken for periodic emissions monitoring can vary from site to site, which adds to the uncertainties of the emissions estimated.

Effective management of ventilation air methane requires accurate monitoring because of the very low methane concentrations.

The EPA understands that many mines have already implemented continuous, highly accurate monitoring of methane concentrations in ventilation air for safety reasons.

Box 2: The EPA's emissions measurement initiatives

The EPA's work on the measurement of fugitive methane has been ongoing and is described on the EPA website, under Advances in greenhouse gas measurement. To help contribute to the science around measurement of fugitive methane, the EPA engaged UNSW to undertake a mobile survey of fugitive emissions in the Eastern Creek area of Sydney and also engaged CSIRO to provide advice on measurement of fugitive methane.

The next step in this journey is to establish a regional network.

The NSW Government will establish regional greenhouse gas monitoring networks to measure ambient concentrations of greenhouse gases over time. Initially the NSW Government will prioritise establishing the network in the Hunter region, attaching greenhouse gas monitors to existing air quality monitors. The locations for the greenhouse gas monitors will be informed by the knowledge and experience gained during the establishment of the existing air quality networks as well as further targeted consultation with key stakeholders.

Once a greenhouse gas monitoring network has been established, the NSW Government will work with experts to pilot 'inverse modelling' techniques to attribute the measured concentrations to greenhouse gas emissions at a particular facility. Inverse modelling combines greenhouse gas measurements with known meteorological and chemical transformation models to estimate the sources and rates of greenhouse gas emissions or uptake.

There is still a significant amount of work required to establish appropriate assumptions for inverse modelling, as these models rely on accurate data inputs regarding atmospheric conditions, ambient concentrations and regional variations. These assumptions are important to ensuring the model outputs are reliable and representative of actual emissions levels, and to improving the overall accuracy of greenhouse gas inventories and emissions reduction strategies. These assumptions are

[11] The NGER Scheme requires underground coal mines to use Method 4 direct measurement to estimate fugitive methane emissions, with the option to do periodic or continuous emissions monitoring.

important to ensuring the model outputs are reliable and representative of actual emissions levels, and to improving the overall accuracy of greenhouse gas inventories and emissions reduction strategies.

Once the robustness of inverse modelling has been determined, over time the model results could be compared with NGERS inventories, and with any facility-reported emissions in planning applications, to help verify greenhouse gas estimates.

The greenhouse gas monitoring networks and the inverse modelling will provide a means of tracking regional greenhouse gas reductions and assessing the success of any regulatory interventions. It will also provide greater public transparency on NSW greenhouse gas emissions. Greenhouse gas monitoring networks will play an important role in helping the NSW Government track progress towards targets under the Net Zero Act, and will contribute to understanding whether Australia is meeting its obligations under the Paris Agreement and the Global Methane Pledge.

5. Greenhouse gas emission licence limits

As outlined in our Climate Change Action Plan, the EPA will progressively place targeted, evidence-based limits for greenhouse gas emissions on new and existing Environment Protection Licences for key industry sectors that we regulate (Action 18). This is a long-term action and will not be implemented in the short term.

Emission limit requirements on licences need to be informed by the NSW Government's Regional Greenhouse Gas Monitoring Network and broader work across government.

Why is this requirement needed?

Setting individual greenhouse gas emission limits on licence provides an outcomes-focused approach to driving emissions reductions. However, for the EPA to be able to effectively take action for breaches of limits, they need to be supported by accurate measurement of emissions, and determination of meaningful site-level limits.

When these requirements apply

The requirements being introduced over the next few years will be phased in as below. They have been selected to coordinate with NGERS reporting dates and end of financial year.

Table 1 Timetable for phase-in of requirements

Requirement	Tranche	Who it applies to	Time frame
Annual Climate Change Emissions Report to be submitted to the EPA	1	Safeguard Mechanism facilities	The report, detailing the data from the most recently concluded financial year, is due to the EPA by 28 February each year. The first report due will be the one for the 2024–25 financial year, due by **28 February 2026**.
	1	Coal mines that emit more than 25,000 tonnes of CO_2-e (scope 1 and scope 2) per annum	
	2	The remaining facilities that emit 25,000 tonnes or more of CO_2-e direct and indirect emissions (scope 1 and scope 2) per annum	The report, detailing the data from the most recently concluded financial year, is due to the EPA by 31 October each year. The first report due will be the one for the 2025–26 financial year, due by **28 February 2027.**
Climate Change Mitigation and Adaptation Plan (CCMAP) to be published on the licensee's website	1	Safeguard Mechanism facilities	The CCMAP is due to be made publicly available by **31 October 2026.** A CCMAP is to be updated every three years, with the first update to be made publicly available by **31 October 2029.** Over time, updated CCMAP guidance will be published with requirements to consider adaptation and implement mitigation actions.
	1	Coal mines that emit more than 25,000 tonnes of CO_2-e (scope 1 and scope 2) per annum	
	2	The remaining facilities that emit 25,000 tonnes or more of CO_2-e (scope 1 and scope 2) per annum	The CCMAP is due to be made publicly available by **31 October 2027.** A CCMAP is to be updated every three years, with the first update to be made publicly available by **31 October 2030.** Over time, updated CCMAP guidance will be published with requirements to consider adaptation and implement mitigation actions.

Requirement	Tranche	Who it applies to	Time frame
10-year emissions projections to be submitted to the EPA (see CCMAPs requirements for more detail)	1	Safeguard Mechanism facilities	The 10-year emissions estimates are due to the EPA by **31 October** every three years, with the first submission due to the EPA by **31 October 2026**.
	1	Coal mines that emit more than 25,000 tonnes of CO_2-e (scope 1 and scope 2) per annum	
	2	The remaining facilities that emit 25,000 tonnes or more of CO_2-e (scope 1 and scope 2) per annum	The 10-year emissions estimates are due to the EPA by **31 October** every three years, with the first submission due to the EPA by **31 October 2027**.
Specific mitigation actions	-	Coal mines	See the greenhouse gas mitigation guide for NSW coal mines.
	-	Other licensees	Over time, as CCMAPs are developed and further sector specific greenhouse gas mitigation guides are published.
Emissions measurement	-	Underground coal mines continuous monitoring for ventilation air methane	**31 October 2026**
Greenhouse gas emission limits on licences	-	All licensees	Longer-term requirement, subject to emissions measurement, sector-based greenhouse gas budgets and CCMAPs being in place.

Consultation question

The EPA is seeking feedback on the proposed time frames for the Annual Climate Change Emissions Report and Climate Change Mitigation and Adaptation Plans. Are these time frames suitable in light of NGERS and Safeguard Mechanism reporting obligations? Are there other factors the EPA should be aware of?

Support available

The NSW Government is providing a range of support to help industries reduce their emissions and strengthen their climate resilience. Initiatives include:

- supporting industries to deliver value-for-money emissions reduction projects
- accelerating transformative decarbonisation projects
- helping to build local skills, knowledge and jobs, to ensure NSW industry prospers in a low-carbon economy.

More information about NSW Government support can be found on the website of the NSW Department of Climate Change, Energy, the Environment and Water, under Programs Grants and Schemes.

The Australian Government has established support programs to help industry decarbonise, including investment in abatement projects, green hydrogen and solar energy manufacturing. More information about the available support programs can be found at the Australian Government's Climate Change website.[12]

The NSW Government's High Emitting Industries Fund is offering grants to help NSW's highest-emitting facilities reduce their emissions and strengthen their resilience. Funding is available to help facilities develop and deploy decarbonisation projects, from feasibility studies to commissioning. The fund will also be able to support licence holders develop Climate Change Mitigation and Adaptation Plans. Visit the NSW Climate and Energy Action website for more information.[13]

For more information and support on how agricultural and landfill licensees can quantify their emissions, see the supporting guidance documents, *Information for Agricultural Licensees* and *Information for Landfill Licensees,* available on the EPA's Have Your Say page.[14]

[12] Australian Government, Climate change, Department of Climate Change Energy and Water website, accessed 29 May 2025

[13] NSW Government, High emitting industries, NSW Climate and Energy Action website, accessed 29 May 2025

[14] yoursay.epa.nsw.gov.au/

Glossary and acronyms

Table 2 Acronyms used in this document

Term	Explanation
CO_2-e	Carbon dioxide equivalent
NGERS	National Greenhouse and Energy Reporting Scheme
POEO Act	*Protection of the Environment Operations Act 1997*

Table 3 Glossary of terms used in this document

Term	Explanation
Abatement	A reduction in atmospheric greenhouse gases through emissions avoidance or removal and sequestration of carbon from the atmosphere.
Climate Change Action Plan	The NSW Environment Protection Authority's plan to address climate change and protect the environment.
Australian Carbon Credit Unit (ACCU)	A carbon credit administered by the Clean Energy Regulator. An ACCU is created as a result of activities that avoid or remove greenhouse gases from the atmosphere.
Carbon dioxide equivalent (CO_2-e)	The measure used to compare various greenhouse gases based on their global warming effect. For instance, a tonne of methane has an effect on global warming equivalent to approximately 28 tonnes of CO_2.
Carbon offsetting/offsetting	Using offset units, such as Australian Carbon Credit Units, to compensate for emissions produced. Offsets are commonly used to achieve a net emissions target.
Climate change	Human-driven changes in the climate (the average weather) that persist for an extended period of time, typically decades or longer. Climate change occurs in addition to or on top of variability from year to year (CSIRO 2018).
Climate Change Policy	The NSW Environment Protection Authority's policy for addressing climate change and protecting the environment
Clean Energy Regulator	The Australian Government regulator is responsible for addressing Australia's climate change and administering the National Greenhouse and Energy Reporting framework. This includes administering the *National Greenhouse and Energy Reporting Act* 2007, National Greenhouse and Energy Reporting Regulations, the National Greenhouse and Energy Reporting Scheme, Safeguard Mechanism, Safeguard Mechanism credit units, and the Australian Carbon Credit Unit scheme.
Decarbonising/ decarbonisation	Decarbonisation is the process by which countries, individuals or other entities aim to achieve [a] zero fossil carbon existence. Decarbonisation typically refers to a reduction of the carbon emissions associated with electricity, industry and transport (IPCC 2018).
Emission intensity	The amount of scope 1 (direct) greenhouse gas emissions released per unit produced, waste managed, or electricity supplied to the grid.
Energy intensity	The quantity of energy required per unit of output or activity.
Greenhouse gas	Greenhouse gases are gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of radiation emitted by the Earth's surface, by the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary greenhouse gases in the Earth's atmosphere. Human-made greenhouse gases include sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs) and perfluorocarbons (PFCs) (IPCC 2021a).

Term	Explanation
Large emitters	Premises that emit 25,000 tonnes or more of scope 1 and scope 2 emissions (CO_2-e) per year, in any of the three most recently concluded financial years.
Licence	An environment protection licence issued by the EPA under Schedule 1 of the POEO Act. It is a legally enforceable document listing the activities a licensee can undertake and the conditions for operation as it relates to the environment.
Licensee	The holder of an environment protection licensee.
Mitigation	Action taken to reduce the rate of climate change.
Net zero	Achieving 'net zero' means that any emissions produced are offset by actions that remove an equivalent amount of greenhouse gases from the atmosphere. This paper refers to 'net zero' in the context of the goal to achieve global net zero.
National Greenhouse and Energy Reporting Scheme	The national framework for reporting and disseminating company information about greenhouse gas (GHG) emissions, energy production, energy consumption and other information specified under NGER legislation.
Premises	Premises which are licensed by the EPA to conduct 'premises-based activities' listed in Schedule 1 of the POEO Act.
Regulated community	Businesses regulated by the EPA.
Requirements	Legal requirement set by the EPA in regulation or in licence conditions.
Safeguard Mechanism	The national emissions reduction framework that targets Australia's largest emitters.
Safeguard Mechanism credits	Tradeable credits earned by Safeguard Mechanism facilities that operate under their baseline. They can be sold, surrendered or banked.
Scope 1 (direct) emissions	Emissions released into the atmosphere as a direct result of the activities at your facility.
Scope 2 emissions	Emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by an entity. Purchased and acquired electricity is electricity that is purchased or otherwise brought into an entity's boundary.
Scope 3 emissions	Indirect greenhouse gas emissions (not included in scope 2) that occur in the value chain of an entity, including both upstream and downstream emissions. Scope 3 greenhouse gas emissions include the scope 3 categories in the *Greenhouse Gas Protocol Corporate Value Chain (scope 3) Accounting and Reporting Standard* (2011).

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Appendix: Draft requirements

Annual Climate Change Emissions Report

1. The licensee must provide to the EPA an annual report, for the most recently concluded financial year, that details the following information specific to the premises, by greenhouse gas type and activity as appropriate.
    a) The facility name as provided to NGERS if appropriate;
    b) scope 1 emissions in tonnes carbon dioxide equivalent (t CO_2-e);
    c) scope 2 emissions in t CO_2-e;
    d) energy consumed in gigajoules (GJ)
        i. Energy consumed by fuel/energy commodity in GJ;
    e) energy produced in gigajoules (GJ);
        i. Energy produced by fuel/energy commodity in GJ;
    f) emissions intensity in tonnes carbon dioxide equivalent per tonne of raw material produced (t CO_2-e/t raw commodity produced); and
    g) energy intensity
        i. Units of energy consumed per unit of raw commodity produced.
2. The licensee must annually provide to the EPA commentary on the reasons for significant emissions, energy and emissions intensity changes from the most recently concluded financial year.

Emissions monitoring for underground coal mines

3. The licensee must undertake continuous monitoring of methane concentration in emissions from ventilation shafts at underground mines.
4. The licensee must use the information to calculate their methane emissions for their Annual Climate Change Emissions Report.

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Visit:
6 Parramatta Square
10 Darcy Street
Parramatta NSW 2150

Mail:
Locked Bag 5022,
Parramatta NSW 2124

Phone:
+61 2 9995 5000 (switchboard)

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