

3 November 2025

Submission in Response to NSW EPA
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Climate Change Licensee Requirements
Climate Change Mitigation and Adaptation Plans: Mitigation Requirements

To whom it may concern,

Idemitsu Australia welcomes the opportunity to provide our views on the NSW EPA's Climate Change Licensee Requirements and Climate Change Mitigation and Adaptation Plans: Mitigation Requirements consultation papers.

Idemitsu has been operating in Australia for over 45 years, with our core business starting via coal mining operations in New South Wales and Queensland, producing thermal, semi-soft, and PCI coals for export.

In recent years, our business model has undergone a dramatic transformation, with a long-term focus on advancing local renewable energy generation and export opportunities through Idemitsu Renewable Developments Australia, and critical minerals opportunities through Idemitsu Minerals Australia. We have made substantial progress in our efforts to decarbonise our operations by investing in renewable energy solutions such as pumped hydro, hydrogen, biofuels, solar, and energy storage.

EXECUTIVE SUMMARY

Idemitsu Australia fully endorses the NSW Minerals Council's comprehensive submissions on these proposals. We seek to emphasise several critical points from our company perspective, particularly regarding our substantial investments in decarbonisation and the risks posed by duplicative regulation.

In summary, Idemitsu Australia supports the positions stated in the NSW Minerals Council submission and seeks to emphasise our position on key subjects, namely:

- Idemitsu's already substantial investments to date on successful emissions reduction measures and our company's ongoing transition to renewable energy generation.
- The risk to continued investment in these programs if we are forced to reallocate resources to satisfy the proposed NSW EPA requirements, in particular:
 - The unnecessary and costly duplication of regulatory processes, including the Safeguard Mechanism.
 - Biofuels abatement measures that are economically unviable or unavailable.
 - Inflexible timelines and an exemptions process which will be unworkable.

The NSW coal mining sector has already achieved a 28% reduction in emissions since 2005 (exceeding the state average of 25%), with 4Mt CO₂e of direct methane abatement in 2023-24 alone through gas drainage and flaring initiatives. The industry is on track to achieve a 50% reduction by 2030 through the Safeguard Mechanism, which already covers 95% of coal mining emissions.

In fact, the NSW EPA's suggested approach could paradoxically slow the decarbonisation of the NSW coal industry, halting investment, threatening local economies, and state revenues.

As a 100% net exporter of high-energy, low-emissions thermal coal, such measures also pose a serious risk to Idemitsu's future ability to fulfil long-term contracts with trade partners, particularly in the event of further costly regulations, royalty increases, and downward pressure on coal pricing.

These proposals appear misaligned with the NSW Net Zero Modelling (2024) and the Federal Climate Change Authority's Sector Pathways Review (2024), which recognise the technical and economic constraints of alternative fuels in the resources sector pre-2040.

Rather than the NSW EPA prescribing onerous and, in some cases, untested methods for carbon reduction, Idemitsu Australia believes the most effective way to achieve reductions is to set agreed targets and allow the industry to innovate and develop solutions suited to the mine, its geology, and local conditions to meet these targets.

IDEMITSU AUSTRALIA'S ONGOING INVESTMENT IN REAL EMISSIONS REDUCTION AND THE TRANSITION TO RENEWABLE ENERGY GENERATION

To best illustrate our view that investments in local solutions produce real reductions in emissions (as opposed to theoretical mandates), we draw your attention to two current projects underway by Idemitsu Renewable Developments Australia. The first is already delivering considerable reductions in CO2 emissions at our Boggabri site, and the second, at Muswellbrook, will, upon completion, produce 400 MW of much-needed firming capability to the grid for 8 hours (3,200 MWh) through our proposed pumped hydro energy storage facility. Muswellbrook will also host our hybrid 135 MW solar and 100 MW/2 hour battery project.

5 MW Solar Farm at Boggabri Mine (Reducing Scope 2 CO2 Emissions from Electricity Use by 40%)

Idemitsu Australia has recently installed and is operating a 5 MW solar farm at our Boggabri Coal Mine to partially replace the mine's grid electricity usage, supporting Idemitsu's decarbonisation targets and contributing to a significant reduction in carbon emissions.

Having been successfully commissioned in late September 2025, the solar facility has commenced full-scale generation of up to 5 MW of renewable energy for the mine during daylight hours, expected to reduce CO2 emissions by approximately 5,000 tons in its first year of operation.

The project reduces Boggabri Mine's Scope 2 CO2 emissions from electricity use by 40% annually. It aligns with Idemitsu's long-term target to achieve net-zero emissions by 2050, marking an important milestone in minimising the environmental impact of our operations.

The next phase of the project will involve integrating a 12.6 MWh vanadium flow battery (VFB), which has been approved for installation. The combined solar and battery project will boost renewable energy use at Boggabri, improve power reliability, and support critical equipment and operations at night when the sun is down.

It's also a clear example of how we're evolving traditional mining with proven clean technologies. Ultimately, it will play a crucial role in demonstrating the capabilities of VFBs in Australia and help us strengthen our business case for vanadium mining and electrolyte production.

Muswellbrook Pumped Hydro, Solar, and Storage Precinct

Our multi-billion dollar planned conversion of the former Muswellbrook Coal Mine site to a clean energy precinct is currently advancing our pumped hydro project (CSSI approved) as well as a solar and battery project, aiming to:

- Deliver reliable, low-cost electricity through both renewable energy generation and multiple forms of energy storage.
- Produce 400 MW of clean energy for 8 hours via the pumped hydro project. The solar and battery project will generate 135MW of solar energy and integrate a 100 MW/2-hour battery. These projects would be significant contributors to NSW's renewable energy expansion toward net zero by 2050, provided that they receive timely planning approvals.
- Support the NSW Government's goal of a 50% emissions reduction by 2030 and net zero by 2050.

Developing Pumped Hydro Energy Storage (PHES) and other synchronous low-demand storage (LDS) technologies is integral to ensuring reliability and affordability as Australia transitions to a renewable energy system.

Investments in initiatives such as these have significant cost implications, both in terms of capital and state government approvals.

The EPA's proposals threaten the viability of these projects (and future projects like them) that would otherwise provide significant benefits to NSW in reaching its net-zero 2050 target and illustrate how regulatory overreach can threaten the funding of genuine decarbonisation efforts.

DUPLICATION AND REGULATORY OVERREACH

The NSW coal mining industry is already on track to reduce emissions in line with legislated NSW targets, and as illustrated above, continues to implement abatement measures through investment in innovation and technological advances, such as solar and battery technologies. Since 2005, the industry has reduced emissions by 28%, which is faster than the state average of 25%.

In other words, the system is working.

The Federal Safeguard Mechanism already provides comprehensive coverage of the sector, with 95% of NSW coal mining emissions captured under this framework. The upcoming 2026 Safeguard review presents an opportunity to assess and adjust settings as needed, rather than introducing conflicting state-level requirements.

The NSW EPA's Climate Change Licence Requirements document states that "the Safeguard Mechanism alone will not be enough to help NSW meet its net zero reduction targets..."

We do not believe that focusing on one industry at a time and then implementing a wide range of complex mitigation measures is the best approach. These measures should, on their face, be applied to shared supply chains with industries facing challenges similar to those of the target. Diesel emissions in transport and agriculture, for example, are also noted in the NSW Net Zero Plan (2024) as requiring urgent attention to meet the 2030 targets.

Apart from the unfair targeting of a single industry in isolation (potentially years ahead of others that face similar threats to the emissions target), the NSW EPA risks further confusion when it will presumably be seeking to develop separate GHG mitigation measures for different industries that share even larger contributing factors to CO2 emissions than the coal mining industry.

This approach directly contradicts the EPA's own Action Plan commitment to evidence-based, feasible requirements and risk assessments, resulting in billions in unnecessary compliance costs across the sector.

This is outside the EPA's statutory duties to promote economically viable solutions and will create a separate level of GHG-related requirements in NSW that are inconsistent with a licence holder's Safeguard Mechanism requirements.

We therefore strongly agree with the NSW Minerals Council's opinion that "the proposal to mandate standard mitigation requirements at coal mines is based on the false premise that the Safeguard Mechanism is not driving feasible on-site abatement. The mitigation requirements proposed in the Coal Mine Mitigation Guide are either already being implemented where they are feasible, do not yet exist, are unproven, have technical limitations, or are uneconomic. As a result, the proposed framework will not change outcomes but will consume significant resources. A better approach would be for CCMAPs to be anchored to the Safeguard Mechanism for covered facilities, with site-specific justification for any additional measures informed by, but not mandated by, the Guide."

LOW-CARBON FUELS ARE CURRENTLY UNECONOMIC

The NSW EPA's proposal for low-carbon fuel mandates includes starting with 5% in July 2030, increasing to 10% in July 2035, and reaching 25% in July 2040. It is also seeking views on whether a 2.5% requirement for low-carbon fuels used at NSW coal mines should be mandated by 2027.

These mandates, in addition to being uneconomic, would increase Safeguard compliance costs by between 700% and 1600%.

This aligns with McKinsey's analysis, indicating that alternative fuels will not be cost-competitive in the resources sector until post-2040, making these mandates premature and economically destructive.

As outlined in the previous section, this approach is completely inequitable. It will directly lead to a reduction in resources that should otherwise be invested in solutions that achieve real reductions in GHG emissions. In addition to the proposed low-carbon fuel mandate, the EPA is investigating requirements to mandate Tier 4 engines for large mining equipment. However, Tier 4 engines are limited to a maximum low-carbon fuel blend of 7%, which directly conflicts with the proposed fuel mandate requirements. This exemplifies a broader concern: prescriptive technology mandates can inadvertently constrain pathways to compliance with emissions targets.

We respectfully submit that the EPA should establish clear emissions reduction targets while allowing industry the flexibility to innovate and develop site-specific solutions tailored to individual mine characteristics, geological conditions, and regional factors. This performance-based approach would enable more effective and economical achievement of the EPA's environmental objectives.

On current estimates for Idemitsu Australia alone, the cost would be between \$15–20 million per annum, significantly undermining our investments in solar and storage technologies that will provide significant abatement not only for Idemitsu's mines but potentially across the entire coal mining industry, and would impact our proposal to build a 400 MW pumped hydro system on the former Muswellbrook coal site.

POTENTIAL IMPACT ON LOCAL ECONOMIES, STATE REVENUES, AND INTERNATIONAL TRADE OBLIGATIONS

The potential cost of these proposals to Idemitsu Australia in compliance alone is significant, estimated at between \$15–20 million per annum, consuming 10%–15% of coal price windfalls and without any guaranteed reduction in emissions.

Further unplanned shocks, such as increases in royalties and further regulatory impositions, together with a reduced coal price, could result in an earlier-than-planned withdrawal from the Australian market.

The net impact would result in a loss of 875 direct jobs and over 3,500 indirect jobs in Regional Australia, with royalties of over \$1 billion at risk.

It would also threaten our investments in critical minerals, including vanadium battery materials and technology, as well as our solar, battery, and pumped hydro programs.

Our long-term contracts to supply our international trading partners with the high energy, high quality thermal coal needed to power their industries as they transition to cleaner energy would also be threatened. To put this in perspective, if thermal coal from our Boggabri mine was to be replaced by lower energy coal sourced from Indonesia, our customers would require approximately 43% more coal to deliver the same energy output. That is significantly more mining and transport activities contributing to global carbon emissions, resulting in a net increase of CO₂ emissions globally.

CONCLUSION

Idemitsu Australia is committed to playing a significant role not only in reducing emissions at our coal mining sites, but also in transitioning into a renewable energy producer and exporter.

To achieve these goals, we must be allowed to invest in innovative solutions that deliver real reductions and drive long-term change.

We have already made significant progress in these areas.

The current NSW EPA proposals have the potential to undermine our coal revenues that fund our transition program.

We respectfully urge the EPA to reconsider these proposals and instead work with industry to develop a framework that complements, rather than duplicates, the Safeguard Mechanism, allowing for site-specific flexibility through CCMAPs. Idemitsu Australia stands ready to collaborate on practical, evidence-based approaches that will accelerate NSW's journey to net zero while maintaining economic viability and energy security for our trading partners.

Idemitsu welcomes further dialogue on developing solutions that achieve genuine emissions reductions while supporting regional communities and maintaining Australia's position as a reliable energy partner.

Yours faithfully,



Steve Kovac
CEO