



Director Policy and Strategy
NSW Environment Protection Authority
Locked Bag 5022
Parramatta, NSW, 2124

26 September 2025

Dear Shagofta,

RE: Proposed Climate Change Requirements for NSW's Large Greenhouse Gas Emitters

The NSW Environment Protection Authority (**EPA**) made the *Have your say on climate change-related requirements for industry (the Consultation)* available for public consultation on the 29 July 2025.

The Consultation outlines the EPA's proposed approach to introducing climate change-related requirements on applicable Environment Protection Licences (**EPL**), under the *Protection of the Environment Operations Act 1997*, to achieve emission reduction targets legislated by the *Climate Change (Net Zero Future) Act 2023* (NSW).

The EPA's approach was outlined at a high level in the included draft documentation:

- Proposed Climate Change Licensee Requirements (EPA, July 2025).
- Climate Change Mitigation and Adaptation Plans (**CCMAPs**) – Mitigation Requirements (EPA, July 2025).

Aurizon Operations Limited (**Aurizon**) has reviewed the Consultation material provided, and additional representations made in an online presentation held by the EPA on 20 August 2025. Aurizon provides targeted feedback in Attachment 1. However, in summary, Aurizon is generally unsupportive of measures proposed in the Consultation due to the implications of complying with inconsistent regulatory approaches and likely unintended outcomes of the Consultation making rail less competitive with road, resulting in increased emissions

Impact to Competitiveness of the Rail Industry

As a large emitter, Aurizon operates a National Transport (Safeguard) Facility (**NTF**), as regulated by the Clean Energy Regulator (**CER**) and must comply with the Australian Sustainability Reporting Standards (**ASRS**), compliance with which are mandated following recent amendments to the *Corporations Act 2001 (the Act)*.

Emissions reduction targets are set by the Australian Government under the *Climate Change Act 2022* (Cth). Aurizon notes that NSW's legislated targets are inconsistent with Australia's national targets.

As an open access rail operator, Aurizon regularly compete in contestable markets with road transport operators in key regional freight corridors. As noted by the Climate Change Authority, in Australia, rail transport accounts for around half of Australia's freight transport yet is responsible for only 4 per cent of transport emissions. While over 65% of rail Scope 1 emissions were captured under the Safeguard, only 2% of road freight Scope 1 emissions were captured.

An Aurizon review of facilities captured by Safeguard in the 2021-22 reporting year identified that no road-based transport entities, which directly compete with freight rail are captured under Safeguard. It is Aurizon's understanding that no road-based transport entities would be captured by the proposed EPA requirements.

ClimateWorks¹ notes the average energy intensity of rail freight is less than one third of that of medium and heavy trucks. Deloitte Access Economics² notes carbon emissions are up to 16 times lower than road freight when compared on a net tonne kilometre basis. In this regard, shifting freight from road to rail, wherever possible is a key lever to reduce transport sector emissions.

It is Aurizon's view that the proposed EPA climate change-related requirements are inconsistent with existing Commonwealth targets, mitigation strategies and reporting standards resulting in additional, and unnecessary financial burden on companies such as Aurizon who take a national approach to decarbonisation and have existing national reporting requirements under the ASRS. Unless the key contribution that energy efficient and low-carbon modes of land-based freight transportation, such as rail, play in reducing transport emissions in Australia is recognised, the measures proposed, will have the unintended consequence of promoting carbon leakage from rail to road due to making rail less competitive.

Benefits of Prioritising Modal Shift

Modal shift in contestable freight markets (road to rail) presents a significant opportunity to decarbonise the freight transportation sector in the near-term. This benefit can be realised with existing fleet technology before any additional improvements are realised through decarbonisation of the rail or road sector. The apparent EPA approach to prioritisation of decarbonisation technologies ahead of a modal shift is not practical as:

- Freight rail utilises long-lived assets (i.e. locomotives have an operational life-span of 25-30 years) and are technology constrained. Aurizon has committed \$50M³ to the establishment of a technology innovation fund to fast-track development of low carbon technologies for Australia's hard-to-abate heavy haul freight sector over the coming decade. This will involve retrofitting long-lived diesel rollingstock assets with replacement decarbonisation technology. Notwithstanding this investment, there exists significant technological and then scaling hurdles which will prevent the rail industry from rapidly or meaningfully reducing Scope 1 emissions by 2030.
- Domestic access to critical supply chains required to facilitate decarbonisation are largely non-existent and suppliers are already facing significant interest from the North American and European rail sectors that are larger than Australia's rail sector by several orders of magnitude (Class 1 U.S. ~27k⁴ locomotives in service vs. Australia's 2k locomotives in service⁵). Whilst suppliers are working on zero emission freight locomotives, there are currently none in operation worldwide. Furthermore, technology developed for global rail markets is unlikely to be easily transferrable to the Australian

¹ ClimateWorks (2020), *Moving to Zero, Accelerating the Transition to Zero-Emissions Transport*, p.30. Available: <https://www.climateworkscentre.org/wp-content/uploads/2020/06/TRAN-0520-000071-TRANSPORT-ISSUES-PAPER-V5.pdf>

² Deloitte Access Economics (November 2020) *Value of Rail 2020: The rail industry's contribution to a strong economy and vibrant communities*. Commissioned by the Australasian Railway Association.

³ Aurizon (2020) *Climate Strategy and Action Plan* (<https://aurizon.com.au/sustainability>)

⁴ <https://statista.com/statistics/185222/us-class-i-railroad-locomotive-fleet-since-1990/>

⁵ BITRE, 2021.

market, due to compatibility and infrastructure constraints (such as load ratings and narrow-gauge rail envelopes in key corridors).

- Currently, and for the foreseeable future, there are no legislative requirements for road transport entities to invest in or otherwise deploy decarbonisation technology to their trucking fleets. Furthermore, as no road transport companies are responsible emitters under Safeguard or likely to be captured by measures in the Consultation, they are not subject to any compliance obligations with respect to emissions.
- Road transport emissions are acknowledged to both be significantly higher than rail per net tonne kilometre and as contributing significantly more to overall transport emissions in Australia sit firmly in an emissions reduction blindspot. Furthermore, whilst rail operators like Aurizon need to commit more than \$103M between FY24-FY30 to address its national Scope 1 emissions, no single road operator, nor the road transport sector as a whole is required to commit any effort towards decarbonisation or emissions compliance.
- Aurizon is working to increase freight volumes on rail, including by shifting freight volumes currently on road to rail. There is, however, intensive competition between road and rail transport for providing freight and logistics services to carry products including agricultural commodities, particularly grain, critical minerals and processed minerals and manufactured products.
- The EPA has identified renewable fuels as a key contributor to the EPA proposed emissions reduction strategy. Renewable fuels are not yet, or forecast to be, available in any meaningful volumes and require a harmonised approach to policy development between State and Federal governments, ensuring consistency and alignment across jurisdictions. Harmonisation is crucial not only for reducing regulatory complexity but also for supporting the seamless operation of national supply chains.

The Consultation appears to greatly underestimate the costs and practicality associated with decarbonisation efforts facing the rail freight sector compared with the absence of either facing the road freight sector with which rail directly competes. Perversely, measures within the Consultation are likely to have an outcome that results in increased transport emissions, as tonnes move from rail to road or remain on road due to rail being subject to additional operational and administrative costs despite rail's demonstrated lower emissions intensity.

Recommended Changes to the Proposed Requirements

Due to the implications of complying with inconsistent regulatory approaches and likely unintended outcomes of the Consultation making rail less competitive with road, resulting in increased emissions, Aurizon proposes that where an organisation's operations form part of an NTF covered by the Safeguard Mechanism and are managed by a national corporate enterprise (covered by ASRS disclosures) the EPA should not require the organisation to:

- Report NSW specific emissions metrics that are not already required to be reported under National Greenhouse and Energy Reporting (**NGER**) legislation.
- Provide NSW specific decarbonisation plans or prioritise decarbonisation of the company's NSW operations if the company already has a national decarbonisation / transition plan that complies with ASRS disclosure requirements under the Act.

Allowing for the exclusion of NTF operators would avoid a situation where facilities are subject to two different sets of reporting requirements.

If the EPA does not agree with the above exclusions, Aurizon requests further information on:

- Outcomes of consultation undertaken with Department of Climate Change, Energy, the Environment and Water and the CER to address regulatory inconsistencies.
- The EPA's authority (including relevant legal advice obtained) to introduce requirements for state-based climate-related disclosures and emissions reduction targets that are inconsistent with recent reforms to both the Act and the Australian Government's Safeguard Mechanism.
- Modelling demonstrating that reducing rail freight competitiveness will not result in carbon leakage to the road transportation sector.

If you have any queries, please feel free to contact me on the details provided below.



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Principal Adviser Environment
Aurizon

[Redacted contact information]

Attachment 1 – Aurizon feedback on the proposed climate change requirements for NSW's large greenhouse gas emitters

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Consultation Section		Consultation Text	Aurizon Response
Proposed Climate Change Licensee Requirements: Consultation Draft (July 2025)			
1	Requirements and Support: 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.	Under NGER legislation, Aurizon currently captures NSW specific Scope 1 & 2 emissions and energy production/consumption metrics. Aurizon does not measure NSW specific emissions or energy intensity metrics as these are not required under the NGER legislation. Additional effort would be required to meet the proposed requirements. Can the EPA please provide further clarification on: - Proposed calculation methodologies for measuring emissions and energy intensity? - Are emissions from operations in rail yard and depots, not regulated under any EPL, required to be captured? - Why additional regulatory requirements beyond NGER are being proposed if it is the EPA's 'intention' is to receive NGER data only?
2	Requirements and Support: 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. Plans and progress reports are to be published every three years. Documents prepared under other schemes that satisfies Climate Change Mitigation and Adaptation Plan requirements is acceptable as long as any gaps are addressed.	The EPA's proposal is a duplication of existing CER, ASRS and <i>Corporations Act 2001</i> reporting requirements. As a large emitter, Aurizon operates a NTF and already reports under NGER/Safeguard with ASRS requirements to be included in FY26. The proposed requirement to develop state-based disclosures is a significant additional reporting burden for Aurizon. Further, the requirements are unlikely to result in net environmental benefits for Australia or accelerate progress towards achieving national emissions reduction targets. Licensees, such as Aurizon, that operate a NTF prioritise decarbonisation efforts through a national lens in response to existing regulatory reporting frameworks and financial penalties imposed under the Safeguard mechanism. Can the EPA clarify what level of assurance (e.g. limited or reasonable) is proposed (if any) for disclosures that are not aligned with current ASRS reporting requirements, and whether this would change over time. The EPA should consider audit costs, auditor availability, and how that may impact delivery timeframes around financial reporting obligations.
3	Requirements and Support: 2) Climate change mitigation and adaptation plans	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. 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.	Can the EPA clarify: - What are the key sectors? - Will the mitigation guidance align with the Federal Government Climate Change Authority (CCA) Sector Pathway Reviews? - For what purpose is the EPA developing duplicate sector transition pathway reviews, which may or may not be consistent with Federal pathways?
4	Requirements and Support: 2) Climate change mitigation and adaptation plans	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.	Can the EPA clarify: - Will the rail sector be eligible for assistance from the NSW Government's High Emitting Industry Fund.? - If not, how will the rail sector be supported to meet proposed emissions / mitigation goals?
5	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.	The EPA has not provided adequate guidance on what targeted mitigation requirements for affected industry sectors are or how they will be developed. As the rail sector is technologically constrained, the EPA must consult with industry and be agnostic about the technologies and methodologies employed to reach the proposed targets.

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			As an example, at the recent 'EPA's Have Your Say: Reducing greenhouse gas emissions from NSW's large, licenced facilities' event the EPA identified renewable diesel as a mitigation measure that will be relied upon to significantly reduce emissions. No evidence was provided by the EPA demonstrating that renewable diesel will be available in sufficient volume to facilitate this transition nor that it can be achieved economically. Advice from the petroleum industry to date is that without meaningful government support renewable diesel will continue to be unavailable in material volumes. Aurizon also proposes that without alignment with the CCA sector pathway reviews and significant NSW Government financial and regulatory support (e.g. fast tracking the infrastructure for and supply of economical low carbon liquid fuels) then the proposed carbon emissions reduction targets will be unable to be met by industry.
6	3) Specific mitigation actions	Any proposed new requirements will be signalled well in advance to provide suitable lead-in time for businesses and related markets to adjust.	Can the EPA confirm: - What they consider to be suitable lead in time? - Will this be established through consultation with industry?
7	3) Specific mitigation actions	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.	Can the EPA provide what advice has been received confirming the legality of disqualifying licence holders currently captured by Safeguard to access Australian Government Funds or Australian Carbon Credit Units?
8	3) Specific mitigation actions	As the EPA develops emissions mitigation guidance and builds a robust evidence based of emissions data and as available technology becomes market-ready, we will introduce targeted mitigation action requirements.	Can the EPA confirm that targeted mitigation action requirements will be developed in consultation with industry?
9	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 measure some of their onsite emissions rather than relying on estimates used for their climate change annual emissions reporting	The Consultation implies that this is specifically targeted at fugitive methane emissions from mine sites. Can the EPA confirm that this is the case and that there is no intention to apply this to the rail sector? If so, Aurizon suggests if this proposal is put into operation, the language is updated to be specific.
10	4) Emissions measurement	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 Consultation implies that this is specifically targeted at fugitive methane emissions from mine sites. Can the EPA confirm that this is the case, and that costs recovery will not be sought from non-contributing licencees such as Aurizon?
11	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). Emission limit requirements on licences need to be informed by the NSW Government's Regional Greenhouse Gas Monitoring Network and broader work across government.	The Consultation implies that this is specifically targeted at fugitive methane emissions from mine sites. Can the EPA confirm that this is the case? If this is not the case Aurizon's recommendation is that emissions limits should align with the CCA sector pathway reviews.
12	Consultation Questions	Are these time frames suitable in light of NGERs and Safeguard Mechanism reporting obligations?	- Annual Climate Change Emissions Report: Report by 28 February 2026 may be achievable pending clarification of emissions intensity and energy intensity calculation methods. - Climate Change Mitigation and Adaptation Plan (including 10-year emissions projections): Report by 31 October 2026 may be achievable assuming EPA accepts Aurizon's ASRS disclosures as 'comparable information' with no further requirements. - It would be challenging for Aurizon to meet the proposed October 2026 CCMAP reporting timeframes due to company resources being fully utilised and focussed on meeting existing CER, ASRS and <i>Corporations Act 2001</i> reporting requirements.
Climate Change Mitigation and Adaption Plans: Proposed Mitigation Requirements Consultation Draft (July 2025)			
13	Consultation Questions	Are there other factors the EPA should be aware of?	CCMAP Consultation - Section 2.2.2:

Consultation Section		Consultation Text	Aurizon Response
			- The EPA should demonstrate the legality of requiring a licensee to disclose additional information regarding NSW specific mitigation measures, emissions estimates and emissions goals (refer to Appendix B) if the licensee operates a NTF and complies with ASRS requirements under the <i>Corporations Act 2001</i>. - The CER has acknowledged that its Corporate Emissions Reduction Transparency Report was a duplication of the ASRS and hence abolished the report in FY25 indicating that additional approaches outside of the ASRS should be removed/not implemented. - The EPA should strongly consider consulting further with the Australian Government to pursue a more effective, and nationally aligned approach to reducing emissions, rather than imposing additional reporting requirements on industries already focussed on directing available resources toward reducing gross emissions in their sector (as incentivised by the Safeguard Mechanism).
14	Consultation Questions	Are there other factors the EPA should be aware of?	CCMAP Consultation - Section 3.1.1, 3.1.2, 3.1.3, 3.2: Requirements outlined in the above sections are a duplication of, and move beyond current ASRS disclosure requirements with the following key concerns: - Current reporting systems do not allow reporting of NSW Scope 3 emissions so Aurizon would opt to not voluntarily report these emissions. - Publishing of NSW specific emissions forecasts is commercially sensitive and would not be supported. This information is disclosed at the enterprise level as required under the ASRS. - How would the EPA manage the requirement to disclose commercially sensitive information related to NSW-specific mitigation measures, emissions estimates, and emissions goals?
15	Consultation Questions	Are there other factors the EPA should be aware of?	CCMAP Consultation - Section 3.2: As a large emitter, Aurizon operates a NTF and has developed a national transition plan in broad alignment with the CCA sector pathway reviews and makes disclosures in accordance with ASRS requirements under the <i>Corporations Act 2001</i>. It is not reasonable or feasible for Aurizon as a NTF operator to prioritise decarbonisation of NSW operations where this may be inconsistent with the companies national transition plan.
16	Appendix D		Can the EPA confirm the following queries relating to energy intensity and thresholds: - Emissions intensity is measured per tonne of raw material produced, can the EPA confirm the production variable(s) it intends to use for rail freight? - For energy intensity can the EPA confirm the production variable(s) it intends to use for this metric? - What is the threshold for providing reasons for 'significant' YoY changes in reported metrics (Appendix D (2))?