

Department of Climate Change, Energy, the Environment and Water Electricity and Energy Sector Plan discussion paper

submission

April 2024





Department of Climate Change, Energy, the Environment and Water:

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The Carbon Market Institute (**CMI**) welcomes this opportunity to respond to the Department of Climate Change, Energy, the Environment and Water's (**DCCEEW**) Electricity and Energy Sector Plan discussion paper (**Discussion Paper**), which opened for consultation on 14 March 2024.

CMI is an independent, member-based institute that promotes the use of market-based solutions and supports best practice in decarbonisation to limit warming to 1.5°C. Our membership includes 150+ primary producers, carbon service providers, First Nations organisations, legal and financial institutions, technology firms and emissions-intensive companies in Australia and Asia Pacific. The CMI Board updates CMI's Policy Positions annually, which draw on practical insights from—but are ultimately independent of—members.¹

CMI also administers the Australian Carbon Industry Code of Conduct (**ACI Code**), which was established in 2018 to steward consumer protection and market integrity.²

Strategic outlook

In a critical era for the Australian economy as the Australian Government develops a more comprehensive 2050 Net Zero Plan, CMI highlights the opportunity to broaden and deepen climate policy by leveraging market-based frameworks to drive efficient and effective outcomes.

Following a decade of climate change policy uncertainty, the bipartisan 2050 net zero target backed by the broad support of the 47th Australian Parliament opens new opportunities to establish durable climate policy frameworks and facilitate long-term investment decisions.

We recognise the Albanese Government's pragmatism so far in developing public investment schemes to finance the decarbonisation of Australia's electricity and energy sector through to 2030, including:

- the \$1.4 billion Powering the Regions Fund (**PRF**) investment in decarbonising and electrifying industrial stationary energy sources through the Safeguard Transformation Stream (\$600 million), Industrial Transformation Stream (\$400 million), and Critical Inputs to Clean Energy Industries program (\$400 million); and
- the expansion of the Capacity Investment Scheme (**CIS**) to accelerate grid-connected renewable electricity generation and storage towards meeting the 82 percent aspiration of the 2030 Renewable Energy Target (**RET**).

¹ CMI 2023, 'CMI Policy Positions', <u>https://carbonmarketinstitute.org/app/uploads/2023/11/CMI-Policy-Advocacy-Positions_FINAL-2023.pdf</u>.

² CMI 2024, 'Australian Carbon Industry Code of Conduct', <u>https://carbonmarketinstitute.org/code/</u>.



However, with emissions from electricity and energy still comprising 85.9 percent of Australia's national inventory, longer-term policy signals will be needed to drive continued renewable energy uptake, both now and beyond 2030.³

CMI commends the Government's work so far to develop market-based frameworks to support its national climate ambitions, most notably the 2022 Safeguard Mechanism reforms that established a long-term carbon pricing driver for industrial decarbonisation and the proposed New Vehicle Efficiency Standard (**NVES**) that seeks to establish a market-based framework that will address emissions from new light vehicles,⁴ as well as ongoing work to establish the Renewable Electricity Guarantee of Origin (**REGO**) and broader Guarantee of Origin (**GO**) Scheme.

As the Australian Government develops its six sectoral decarbonisation plans to guide Australia's economywide net zero transition by 2050,⁵ we believe an enduring national climate policy framework requires robust consideration of these and additional market-based frameworks. In the longer-term, CMI considers marketbased frameworks should converge to establish a consistent carbon constraint for all sectors of the Australian economy. We maintain that an emissions trading system (**ETS**) with broad economic coverage is the most efficient use of markets to drive decarbonisation towards the net zero 2050 target.⁶

As the Government develops its approach to the Electricity and Energy Sector Plan, we encourage consideration of the following guiding principles:

- Ensure a coordinated approach to sectoral decarbonisation, to support an uplifted 2035 Nationally Determined Contribution (**NDC**)—which CMI maintains should aim to reduce emissions by well over 70 percent, based on 2005 levels.⁷
- Fairly apportion abatement efforts to the electricity and energy sectors, by allocating a carbon budget to each sector of the Australian economy.
- Implement Australia's international commitments, including key outcomes agreed at COP28 during the first Global Stocktake, including the Global Agreement to Transition Away from Fossil Fuels and Global Renewables and Energy Pledge.⁸
- Establish a clear roadmap for reducing emissions in the electricity and energy sector, articulating key actions and activities.

³ Total emissions from energy (85.9% of national emissions) are comprised of: electricity (32.3%), stationary energy (22.2%), transport (21.2%), and fugitive emissions (10.2%). See: Department of Climate Change, Energy, the Environment and Water (DCCEEW) 2024, 'Quarterly Update of Australia's National Greenhouse Gas Inventory: September 2023',

https://www.dcceew.gov.au/sites/default/files/documents/nggi-quarterly-update-sept-2023.pdf. ⁴ See: CMI 2023, 'CMI welcomes historic passing of 'springboard' Safeguard Mechanism Bill' (media release),

<u>https://carbonmarketinstitute.org/2023/03/30/cmi-welcomes-historic-passing-of-springboard-safeguard-mechanism-bill/;</u> CMI 2024, 'The Australian New Vehicle Efficiency Standard (NVES) Consultation Impact Analysis submission' (CMI submission), https://carbonmarketinstitute.org/app/uploads/2024/03/2024.03_CMI-submission_NVES-Consultation-Impact-Analysisconsultation.pdf.

⁵ See also: CMI 2023, 'Department of Agriculture, Fisheries and Forestry Agriculture and Land Sectoral Plan consultation submission', <u>https://carbonmarketinstitute.org/app/uploads/2023/12/2023.12_FINAL_CMI-submission_DAFF-Sectoral-Plan-consultation.pdf</u>.

⁶ As articulated in: CMI 2023, 'DCCEEW Safeguard Mechanism Rules: Consultation on proposed design' (CMI submission), <u>https://carbonmarketinstitute.org/app/uploads/2023/02/FINAL_Carbon-Market-Institute-submission_Draft-Safeguard-Rules-1.pdf</u>, p. 8.

⁷ CMI 2023, 'CMI Policy Positions', <u>https://carbonmarketinstitute.org/app/uploads/2023/11/CMI-Policy-Advocacy-Positions_FINAL-2023.pdf</u>.

⁸ United Nations Framework Convention on Climate Change (UNFCCC) 2023, 'COP28 Agreement Signals "Beginning of the End" of the Fossil Fuel Era', <u>https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era</u>.



• Expand and harmonise existing market-based frameworks, where possible, to establish a relevant pricing signal for all sectors of the economy and in turn accelerate economy-wide decarbonisation.⁹

We outline our recommendations and detailed commentary in the **Attachment**. Relevant Discussion Paper sections are [tagged in blue] after each recommendation.

We note that energy and electricity emissions reduction drivers will also be contemplated in the adjacent resources, industry, and transport sectoral plans, and look forward to exploring relevant recommendations further in the context of their respective forthcoming consultation processes.

Should you wish to discuss this submission in more detail, please contact Gabriella Warden (gabriella.warden@carbonmarketinstitute.org).

Yours sincerely

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⁹ See: CMI 2024, 'The Australian New Vehicle Efficiency Standard (NVES) Consultation Impact Analysis submission' (CMI submission), <u>https://carbonmarketinstitute.org/app/uploads/2024/03/2024.03_CMI-submission_NVES-Consultation-Impact-Analysis-</u> <u>consultation.pdf</u>.





ATTACHMENT

CMI Recommendations

 To create sector-specific investment signals, the Government should set and legislate ambitious economy-wide emissions reduction interim targets, supported by indicative sectoral targets and a carbon budget—including for electricity and energy. [Mobilising Investment]

CMI stresses that the investment cycles that are needed to drive decarbonisation to support Australia's forthcoming ratcheting 2035 and 2040 NDC targets will commence before 2030. Legislating strong interim emissions reduction targets now will complement the long-term bipartisan 2050 net zero target,

The Government has indicated sectoral plans will not include binding sector-specific targets.¹⁰ However, CMI maintains that beneath national targets, Sector Plans—including for electricity and energy—should apportion at least an indicative target and carbon budget to provide some sector-specific direction to private investors.¹¹ Results from CMI's 2023 Australian Business Climate Survey indicated support for this from the Australian business community, with 79 percent of respondents affirming that the Government should set sectoral carbon budgets.¹² Indicative sectoral targets and carbon budgets should be informed by the Climate Change Authority's forthcoming sectoral pathways advice.¹³

providing a medium-term signal for private investment in decarbonisation solutions across the economy.

2. Informed by the national carbon market strategy, the Government should leverage market-based frameworks to scale private investment into the continued renewable electrification of the grid beyond the scheduled 2030 conclusion of the RET.

[Mobilising Investment, Enabling Electrification]

Although the latest update to Australia's National Greenhouse Accounts shows that electricity emissions continue to drop due to the continued uptake of renewables, grid-sourced electricity remains the largest single source of emissions in the national inventory at 32.3 percent.¹⁴ As noted in the Discussion Paper, dependencies between electricity and other sectors' decarbonisation pathways underscores the importance of continued renewable electricity capacity uptake.¹⁵

For more than a decade, the RET has incentivised renewable electricity uptake. It currently targets the delivery of an extra 33,000 GWh of renewable electricity annually, and 82 percent renewables in the grid by 2030.¹⁶ The expansion of the CIS announced in late 2023 will provide additional public support for 23

¹¹ See, '1. Strengthen national climate ambition' in: CMI 2023, 'CMI Policy Positions', <u>https://carbonmarketinstitute.org/app/uploads/2023/11/CMI-Policy-Advocacy-Positions_FINAL-2023.pdf</u>; CMI 2023, 'Climate Change Authority: Setting, tracking and achieving Australia's emissions reduction targets submission' (CMI submission), <u>https://carbonmarketinstitute.org/app/uploads/2023/07/FINAL_CMI-submission_CCA-2023-consultation.pdf</u>, p. 9.

¹⁵ DCCEEW 2024, 'Electricity and Energy Sector Plan discussion paper', <u>https://storage.googleapis.com/files-au-climate/climate-au/p/prj2cb140024fcb5c57b1f5f/page/Electricity%20and%20Energy%20Sector%20Plan%20Discussion%20Paper.pdf</u>, p. 7.
¹⁶ Clean Energy Regulator (CER) 2024, 'Renewable Energy Target', <u>https://cer.gov.au/schemes/renewable-energy-target</u>.



¹⁰ See: DCCEEW 2023, 'The Hon. Chris Bowen MP Address to Clean Energy Council',

https://minister.dcceew.gov.au/bowen/speeches/address-clean-energy-council.

¹² CMI 2023, 'Australian Business Climate Survey 2023', <u>https://carbonmarketinstitute.org/app/uploads/2023/09/CMI-Climate-Policy-Survey-2023-FINAL.pdf</u>.

¹³ Climate Change Authority 2024, 'Sectoral Pathways', <u>https://www.climatechangeauthority.gov.au/sectoral-pathways</u>.

¹⁴ Department of Climate Change, Energy, the Environment and Water (DCCEEW) 2024, 'Quarterly Update of Australia's National Greenhouse Gas Inventory: September 2023', <u>https://www.dcceew.gov.au/sites/default/files/documents/nggi-quarterly-update-sept-2023.pdf</u>.



GW of new renewables generation and 9 GW of storage to help meet the Government's national 2030 target of 82 percent of electricity from renewables.¹⁷

While the RET and CIS are significant drivers of public and private investment in renewables up to 2030, CMI considers the period beyond 2030 presents opportunities to leverage additional market-based approaches that can scale additional private investments into the renewable electrification of the grid. Moreover, according to the results of CMI's Australian Business Climate Survey in both 2022 and 2023, the Australian business community recognises a continued role for market-based drivers supporting renewable electrification beyond the scheduled 2030 conclusion of the RET.¹⁸

Market-based approaches to driving continued renewable electricity uptake should ultimately be informed by the national carbon market strategy, that clarifies supporting role of market-based mechanisms across the Australian economy and climate policy suite.¹⁹

To support continued renewable electrification of the grid beyond 2030, CMI recommends that the Sector Plan consider leveraging market-based approaches, such as:

a) Introducing a mandatory target under the REGO Scheme that requires time-matching to drive demand for firmed renewable capacity beyond the 2030 conclusion of the RET

While the REGO has been proposed as a voluntary scheme, setting a mandatory REGO target would ensure an ongoing, overt driver for the renewable electrification of the grid beyond the RET's 2030 conclusion. Just as the RET incentivises renewable electrification by creating demand for small-scale technology certificates (STCs) and large-scale generation certificates (LGCs), a mandatory REGO target could support investment in new projects by requiring electricity retailers to procure REGO certificates.

CMI strongly supports the Government's stated policy intent to include mandatory timestamping on REGO certificates that will support visibility of time of generation.²⁰ Introducing a REGO target with a time-matching dimension would leverage the timestamping attribute of REGO certificates to drive additional investment into project types that support variable renewable generation in the grid, such as firmed renewables and long-duration energy storage. To enable investments in firmed renewables to come online and provide a source of time-varied REGO certificates, CMI suggests that the time-matching dimension of the REGO target could be phased in. As part of its ongoing consultation on

au/p/prj232e2205fdfa8b85770e8/public_assets/Policy%20position%20paper%20%20-%20%20Renewable%20Electricity%20Certification.pdf, p. 16.



¹⁷ DCCEEW 2024, 'Expanded Capacity Investment Scheme (CIS) – Design Paper consultation, <u>https://consult.dcceew.gov.au/expanded-capacity-investment-scheme-cis-design-paper</u>.

¹⁸ In CMI's 2022 Australian Business Climate Survey, 72% of respondents indicated that additional policy instruments are required to drive clean energy investment and 76% indicated that the RET should be reformed to accelerate decarbonisation. See: CMI 2022, 'Australian Business Climate Survey 2022', <u>https://carbonmarketinstitute.org/app/uploads/2022/10/Australian-Business-Climate-Survey-2022_FINAL.pdf</u>.

In CMI's 2023 Australian Business Climate Survey, 63% of respondents indicated that the RET should be extended, either through the REGO Scheme (37%) or as is (26%), while 80% of respondents agreed that the Safeguard Mechanism should eventually transition into an economy-wide scheme covering all sectors, including electricity. See: CMI 2023, 'Australian Business Climate Survey 2023', https://carbonmarketinstitute.org/app/uploads/2023/09/CMI-Climate-Policy-Survey-2023-FINAL.pdf.

¹⁹ CMI 2023, 'Climate Change Authority: Setting, tracking and achieving Australia's emissions reduction targets submission' (CMI submission), <u>https://carbonmarketinstitute.org/app/uploads/2023/07/FINAL_CMI-submission_CCA-2023-consultation.pdf</u>, pp. 9-11.

²⁰ See 'Policy position proposal 12' in: DCCEEW 2022, 'Renewable Electricity Certification discussion paper', <u>https://storage.googleapis.com/files-au-climate/climate-</u>



implementing the REGO mechanism, the Government should consult market participants on the possibility of implementing a REGO target, and the best manner for mandating time-matching.²¹

b) At an appropriate time after 2030, bringing high-emitting electricity generators into the reformed Safeguard Mechanism to provide an additional backstop for the retirement of legacy fossil generating assets

The electricity sectoral baseline currently protects high-emitting grid-connected generators from declining baselines under the reformed Safeguard Mechanism. At an appropriate time in the future—that is, a point in time after 2030 when the CIS and other market incentives such as a possible REGO target (see Recommendation 2(a)) have scaled sufficient clean, dispatchable electricity capacity to replace fossil generation—bringing these generators into the reformed Safeguard Mechanism could provide a backstop to lock in the retirement of emissions-intensive, legacy fossil assets.²² The efficiency of this approach is recognised by corporate Australia; 80 percent of respondents to CMI's 2023 Australian Business Climate Survey would support the economy-wide expansion of the Safeguard Mechanism.²³

CMI similarly maintains that an economy-wide ETS, such as the former Carbon Pricing Mechanism, is the most efficient use of carbon markets to drive overall decarbonisation.²⁴ However, given current policy settings and the need to manage this transitional period of grid and power price instability, the electricity sector should not be brought into the reformed Safeguard Mechanism before the 2030s. Applying declining baselines to individual electricity generators too soon risks perverse outcomes, such as the diversion of company capital away from new renewable projects and into the purchase of ACCUs to support fossil power station compliance at a time when their generation is still required for firming purposes, and/or the pass-through of compliance costs to customers and taxpayers.

3. Also informed by the national carbon market strategy, the Government should explore the potential of market-based approaches to support the uptake and commercialisation of low-carbon fuels, particularly in the heavy road transport and domestic aviation segments.

[Mobilising Investment, Low-carbon Fuels]

CMI notes that the reformed Safeguard Mechanism and supporting streams within the PRF (\$1.4 billion) provide significant incentives for covered facilities to reduce emissions and meet declining baselines via the uptake of low-carbon fuels. However, there are gaps in the Safeguard Mechanism's coverage of the transport segment of electricity and energy sector. To create incentives for the uptake of low-carbon fuels in heavy road transport and domestic aviation, this Sector Plan—in conjunction with the forthcoming transport and industry sector plans—should explore the additional market-based solutions for heavy road transport and domestic aviation, including:

²⁴ As articulated in: CMI 2023, 'DCCEEW Safeguard Mechanism Rules: Consultation on proposed design' (CMI submission), <u>https://carbonmarketinstitute.org/app/uploads/2023/02/FINAL_Carbon-Market-Institute-submission_Draft-Safeguard-Rules-</u> <u>1.pdf</u>, p. 8.



²¹ The Government has indicated its intent to continue consulting on the implementation of the REGO on the DCCEEW website: DCCEEW 2024, 'Guarantee of Origin scheme', <u>https://www.dcceew.gov.au/energy/renewable/guarantee-of-origin-scheme</u>.

²² As suggested in: CMI 2023, 'DCCEEW Safeguard Mechanism Rules: Consultation on proposed design' (CMI submission), <u>https://carbonmarketinstitute.org/app/uploads/2023/02/FINAL_Carbon-Market-Institute-submission_Draft-Safeguard-Rules-</u> <u>1.pdf</u>, p. 8.

²³ CMI 2023, 'Australian Business Climate Survey 2023', <u>https://carbonmarketinstitute.org/app/uploads/2023/09/CMI-Climate-Policy-Survey-2023-FINAL.pdf</u>.



a) A liquid fuel ETS for heavy road transport

The Safeguard Mechanism covers only 2 percent of road freight emissions.²⁵ While the proposed NVES will address emissions from new light vehicles, to create a consistent decarbonisation driver across road freight, the Government should explore market-based approaches to driving the uptake of low-carbon fuels.

A liquid-fuel ETS to encourage renewable diesel and 'drop-in' biofuel uptake for older freight vehicles is one option worth exploring—noting that this should be implemented in a manner that does not erode the uptake of new zero emissions freight vehicles where these are viable.²⁶

b) A jet fuel ETS and incentives to support SAF uptake in domestic aviation

Quarterly updates of Australia's national inventory show that domestic aviation emissions have continued to rebound sharply following the COVID pandemic.²⁷ At present, the Safeguard Mechanism only captures two domestic air carriers—Qantas and Virgin Australia. Given the relatively high marginal cost of abatement for aviation, bringing other domestic air carriers into the Safeguard Mechanism as a standalone measure could drive airlines to purchase of Australian Carbon Credit Units (ACCUs) at the expense of investment in expensive step-changing technology uptake.

CMI therefore recommends that the Sector Plan consider introducing a jet fuel ETS to introduce a market-based driver for the uptake of sustainable aviation fuel (SAF). This could be facilitated through fuel emissions standards; that is, underpinned by a tradeable certificate market that over time drives investment in SAF. The Low Carbon Fuel Standard (LCFS) in California is one example of a market-based approach that creates crediting opportunities to incentivise the investment in and use of lower-carbon fuels that a jet fuel ETS for Australia's domestic aviation segment could draw on.²⁸

To ensure sufficient supply of SAF to support a jet fuel ETS, the Government should also consider additional co-investment frameworks and/or public funding for new R&D and supply. This could be administered through the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC).²⁹ CMI notes there are existing public funding initiatives that could be built on, such as ARENA's Sustainable Aviation Fuel Funding Initiative.³⁰

³⁰ ARENA 2023, 'Sustainable Aviation Fuel Funding Initiative', <u>https://arena.gov.au/funding/sustainable-aviation-fuel-funding-initiative/</u>.



²⁵ Freight on Rail Group (FORG) 2022, 'Submission in response to the Safeguard Mechanism Consultation Paper', (available at: <u>https://consult.dcceew.gov.au/safeguard-mechanism-reform-consultation-paper/submission/list</u>).

²⁶ See more in: CMI 2024, 'The Australian New Vehicle Efficiency Standard (NVES) Consultation Impact Analysis submission' (CMI submission), <u>https://carbonmarketinstitute.org/app/uploads/2024/03/2024.03_CMI-submission_NVES-Consultation-Impact-Analysis-consultation.pdf</u>, pp. 5-6.

²⁷ DCCEEW 2024, 'Quarterly Update of Australia's National Greenhouse Gas Inventory: September 2023', <u>https://www.dcceew.gov.au/sites/default/files/documents/nggi-quarterly-update-sept-2023.pdf</u>.

²⁸ California Air Resources Board (CARB) 2024, 'Low Carbon Fuel Standard', <u>https://ww2.arb.ca.gov/our-work/programs/low-carbon-</u> <u>fuel-standard</u>.

²⁹ As suggested in: CMI 2023, 'Climate Change Authority: Setting, tracking and achieving Australia's emissions reduction targets', https://carbonmarketinstitute.org/app/uploads/2023/07/FINAL_CMI-submission_CCA-2023-consultation.pdf, p. 22.



4. Explore whether extending the GO certificate scheme to biomethane and biofuels could provide an appropriate driver to finance low-carbon fuels, complemented by appropriate use-case guardrails. [Mobilising Investment, Low-carbon Fuels]

Extending GO certificates to biomethane and alternative low-carbon fuels could provide a certificate system to support the above suggested market-based schemes, while also creating a market-based avenue for the voluntary uptake of low-carbon fuels.

However, recalling COP28 agreements such as the Joint Agreement on the Responsible Deployment of Renewables-Based Hydrogen, CMI stresses that extending the GO scheme to biomethane and other biofuels must be accompanied by strict guardrails that govern the use of these GO certificates.³¹ Such rules should ensure that biomethane GO certificates can only be surrendered and claimed for processes where a gaseous fuel is required. This would help avoid perverse, unintended consequences that may arise if GO certificates are inappropriately used to directly offset fossil fuels for processes where renewable electrification is a viable alternative.

CMI further notes that the ACCU Scheme provides existing incentives for biomethane and methane abatement that may be another avenue to build on instead or in conjunction with the above.

³¹ Climate Champions 2023, 'Joint-Agreement on the Responsible Deployment of Renewables-Based Hydrogen', <u>https://climatechampions.unfccc.int/joint-agreement-on-the-responsible-deployment-of-renewables-based-hydrogen/</u>.





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The Carbon Market Institute is at the centre of climate change policy and business in Australia. Independent and non-partisan, we bring business, policy makers and thought leaders together to drive the evolution of carbon markets towards a significant and positive impact on climate change.

Engaging leaders, shaping policy and driving action, we're helping business to seize opportunities in the transition to a negative emission, nature positive economy.

