Submission to the Climate Change Authority Consultation: Setting, tracking and achieving Australia's emissions reduction targets

The Australian Sustainable Finance Institute | 3 July 2023

Australian Sustainable Finance Institute

1 Introduction

The Australian Sustainable Finance Institute (ASFI) welcomes this opportunity to make a submission to the Climate Change Authority's consultation on setting, tracking and achieving Australia's emissions reduction targets.

ASFI represents Australian financial institutions – including major banks, superannuation funds, insurers, asset managers, and financial services firms – that are working to align the Australian financial system with a sustainable, resilient, and inclusive Australia. ASFI members collectively hold over AU$19 trillion in assets under management and are committed to allocating capital in a way that supports positive social and environmental outcomes.

ASFI works with financial institutions, policy organisations, government and academia to realign the Australian financial system with a resilient, sustainable and inclusive Australia. Our work includes leading the development of an Australian sustainable finance taxonomy with the support of the Department of Treasury and the Council of Financial Regulators.

This submission addresses aspects of the Issues Paper that are especially significant for the finance sector. Specifically:

1. The approach to setting Australia's 2035 Nationally Determined Contribution (NDC): because strong targets are a critical driver and enabler of private finance and investment.

Key recommendation:

Australia's 2035 NDC should be consistent with limiting global temperature rise to 1.5 degrees, supporting the allocation of capital for the transition and positioning Australia to capture the significant opportunities from global decarbonisation.

2. Sector decarbonisation pathways: because science-aligned, national, decarbonisation scenarios for each sector will underpin the broader sustainable finance policy architecture (including a sustainable finance taxonomy, and credible corporate transition plans) and are an important consideration for financial institutions in making capital allocation decisions.

Key recommendation:

ASFI supports development by the CCA of independent, science-based, national sector decarbonisation scenarios for 1.5 degrees and "well below 2" degrees. Scenarios should be down-scaled from credible global decarbonisation scenarios and fit for purpose to the Australian context.

3. The review of the National Greenhouse Gas Emissions Reporting Scheme (NGERS): because reliable, accessible, and transparent corporate emissions data is important to inform financial institutions' lending and investment decisions, as well as to meet their own disclosure requirements (particularly as Australia looks to introduce mandatory climate-related risk disclosure).

Key recommendation:

NGERS should be updated to become Australia's comprehensive 'one-stop shop' for emissions reporting, consistent with contemporary stakeholder needs for reliable corporate emissions data. This will require substantial changes to NGERS reporting obligations, the systems that underpin them, and the publication and accessibility of emissions data.

2

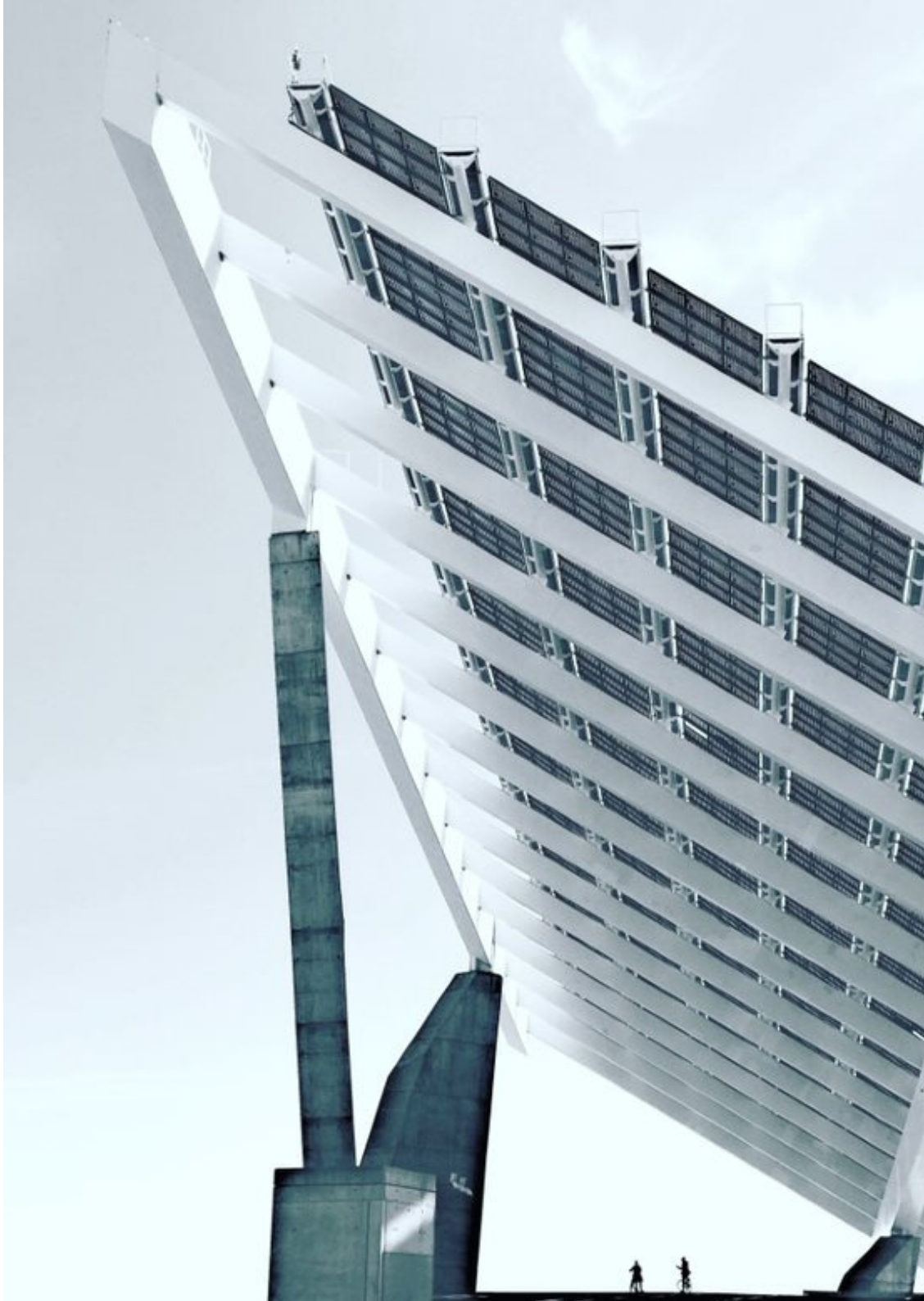
Over-arching comments

The Climate Change Authority (CCA) plays a critical role as Australia's independent advisory body on climate change. The CCA's advice should be grounded in robust, independent, evidence-based scientific and economic analysis. We welcome the identification in the CCA's 2022-23 Corporate Plan of the following key principles to guide the CCA's work: independence, transparency, broad and positive stakeholder engagement, good governance and accountability, excellence in research and analysis, and valuing its workforce.[1]

A key factor in the CCA's ability to adhere to these principles, and to effectively and competently carry out the work discussed in this submission, is appropriate governance arrangements. Governance is particularly important for giving effect to the principle of 'independence' – which should be interpreted as independence not just from Government, but from any particular stakeholder or group of stakeholders. While governance is not strictly within scope for this consultation, ASFI considers it to be an over-arching concern relevant to the CCA's ability to properly perform its functions, including those discussed in this submission.

In our view, the CCA Board as currently constituted presents a risk of perceived or actual conflict of interest. While each member may individually satisfy section 22 of the Climate Change Authority Act 2011 which requires members to have 'substantial experience or knowledge' or 'significant standing' in one of a long list of relevant fields,[2] a principle of good governance is to ensure an appropriate mix and balance of members' skills and diverse perspectives when taken together.[3] Several board members have close connections with parts of industry that have a strong stake in the CCA's analysis and advice. Furthermore, there is not an appropriate balance across relevant industries or stakeholder groups to support or guarantee the board's independence and impartiality. In line with Governance Institute advice, ASFI recommends the Australian Government consider reviewing the board composition and effectiveness to ensure member appointments are fit for purpose, and that they represent the required mix and balance when taken together.[4]

[1] https://www.climatechangeauthority.gov.au/sites/default/files/2022-08/Corporate%20Plan%20-%202022-23.pdf
[2] https://www.legislation.gov.au/Details/C2019C00254
[3] See, eg, AICD's guidance: https://www.aicd.com.au/board-of-directors/performance/skills-matrix/10-tips-to-boost-your-board-composition.html
[4] https://www.governanceinstitute.com.au/media/886907/2022-risk-management-guide.pdf



3

Australia's Nationally Determined Contributions (NDCs)

Issues Paper Questions:

8. How could the Authority best strike a balance between ambition, domestic considerations and the international context in its 2023 NDC advice?
9. What do you think Australia's 2035 target should be and why?

Australia's NDCs are a significant indicator of the Government's commitment to emissions reduction. Science-aligned emissions reduction targets (as well as effective policy and programs to deliver on those targets) are essential to drive the finance and investment needed for Australia to transition its economy. They help financial institutions and real economy businesses identify and allocate capital towards opportunities that will accelerate the transition. NDCs and longer term targets are also a key factor considered by international investors when assessing the sovereign risk associated with Australia's approach to managing climate change.

The CCA's recommendation for Australia's 2035 NDC should be based on a national emissions trajectory consistent with meeting the goals of the Paris Agreement, and in particular limiting global temperature rise to 1.5 degrees, to the extent that such an NDC is technically feasible taking into account immovable technological and physical constraints. Policy and political considerations should not form part of the CCA's target setting analysis.

An ambitious, 1.5 degree aligned 2035 NDC will support the allocation of capital consistent with this goal, and position Australia to capture the significant opportunities from the transition. It will also send a positive signal to the international community of Australia's commitment to climate action, and help maintain access to cost-competitive international capital necessary for Australia's economy to thrive.

CCA's 2035 NDC analysis should move away from the historic 'fair share' narrative that correlates faster decarbonisation with greater economic harm, recognising that in a decarbonising world Australia stands to benefit from earlier domestic action.[5] Furthermore, modelling to inform the development of Australia's 2035 NDC should:

- take into account that setting an under-ambitious target is likely to increase the cost of capital for Australian businesses, further increasing the economic costs of a slow decarbonisation pathway relative to more ambitious pathways.[6]
- not be constrained by Australia's current 2030 NDC of 43% reduction on 2000 levels, which is not consistent with a 1.5 degree trajectory.
- incorporate technology cost forecasts that recognise technology learning rates tend to be significantly higher than what many modelling exercises anticipate.[7]

[5] See, eg, The energy superpower opportunity: Can Australia seize the advantage in a net zero world?, A new choice: Australia's climate for growth | Deloitte Australia | Deloitte Access Economics
[6] Commonwealth (2021). Australia's Long-term emissions reduction plan: Modelling and Analysis, p31.
[7] Way et al. (2022), 'Empirically grounded technology forecasts and the energy transition' in Joule. Empirically grounded technology forecasts and the energy transition - ScienceDirect.

4 Decarbonisation Pathways

Issues Paper Questions:

12. What factors should the Authority consider when developing sectoral decarbonisation pathways?

a) What are the risks and opportunities for households, business, workers and communities affected by the transition?
b) Are there supply chain pressure points?

13. What is the role for Government in reducing these risks and assisting households, business, workers and communities to realise the opportunities?

The Issues Paper notes that the CCA will "provide advice on sectoral pathways to achieve decarbonisation" and that this advice will "focus on addressing the barriers preventing sectors from decarbonising and transitioning towards net zero and net negative targets" (p 19).

ASFI notes that the term 'sector pathways' is capable of more than one meaning. To avoid ambiguity, in this submission we use the following definitions:

a)"Sector Decarbonisation Scenarios": modelling of the decarbonisation trajectory required in individual sectors of the economy to reach a particular temperature goal; or

b)"Sector Decarbonisation Pathways": a more general term referring to a robust, evidence-based analysis of the sequence and timing of actions needed to reduce emissions consistent with a given temperature goal and/or emissions target (or set of targets along a trajectory).

ASFI supports the development by the CCA of independent, national, Sector Decarbonisation Scenarios. These are a key piece of the information architecture needed to inform and enable decision-making for the net zero transition. They will be used by various parties including governments, the finance sector, businesses, and civil society for a variety of purposes including policy-making and capital allocation. Over time, the CCA's Sector Decarbonisation Scenarios could underpin the broader sustainable finance policy architecture – including the Australian sustainable finance taxonomy (which is being developed by ASFI in partnership with the Australian Government) and parts of the Government's climate-related disclosure framework. They would also form a basis for work by the CCA and others to produce Sector Decarbonisation Pathways.

Key modelling parameters for Sector Decarbonsiation Scenarios

We recommend that modelling for the CCA's Sector Decarbonisation Scenarios should take the following approach:

- be independent, science-based, using the best available evidence. We recommend the CCA conduct stakeholder consultation on proposed key assumptions in advance of the modelling exercise. This will help ensure the scenarios fit user needs and promote investment in the transition to net zero.
- model 1.5 degrees and "well below 2" scenarios. To ensure credibility with global financial markets, the 1.5ºC scenario should be defined as "no or limited overshoot".
- Align sector categories with ANZSIC classifications as far as possible. The NGERS reporting system already utilises the ANZIC classification system to categorize businesses and industries and to facilitate standardised reporting of greenhouse gas emissions and energy consumption across various sectors. This allows for better analysis and tracking of emissions and energy data within specific sectors and enables benchmarking and identification of emission trends at an industry level. The ANZIC codes provide a common language for businesses to report their activities accurately and facilitate the compilation and analysis of greenhouse gas and energy data at a national level.
- Ensure each sector's analysis is at an appropriate level of granularity, down-scaling from credible global transition scenarios (such as the International Energy Agency (IEA) or Network for Greening the Financial System (NGFS)) to be fit for purpose for the Australian context. For example, under Manufacturing industries include sub-sectors such as Iron and steel, Non-ferrous metals, Chemicals, Pulp, paper and print, Food processing, beverages and tobacco, and Non-metallic minerals. Both IEA and NGFS scenarios are appropriate global models to down-scale from and there are arguments to be made for using either. We note that the Council of Financial Regulators used NGFS for its Climate Vulnerability Assessment, and CSIRO scenarios downscale from IEA.
- Draw from and build on existing sector scenario analysis. An overview of these analyses is provided at Table 1 below.

- In reporting the findings of its core scenario modelling, the CCA should include:

    1. *At a minimum, emissions levels required at five yearly increments to 2050 for each sector*
    2. *Emissions reductions required by each sector to achieve scenario outcome*
    3. *Indicative technology and abatement mix for each sector including average annual energy investment to 2050 and primary energy mix per scenario*
    4. *Technology assumptions and sensitivity analysis of scenario outputs including with and without carbon capture utilisation and storage (CCUS)*
    5. *The effective carbon price under each scenario*
    6. *Differentiate between the impact of domestic policy and changes in international demand in each scenario.*

- Initial Sector Decarbonsation Scenarios should be made available by June 30, 2024. Scenarios should be updated on a regular basis to take into account changes in technology, economic uptake etc.
- To promote credibility and usability, all assumptions and final data outputs should be made publicly available in an accessible format on the CCA's website.

Table 1: Overview of existing national sector decarbonisation scenarios

The Issues Paper notes that the CCA will draw on the work already done by organisations to model sector decarbonisation scenarios. We support this approach and have set out below an overview of the main four bodies of work that focus on Australia.

Context	Budget/point target	Sector coverage	Scenarios	Model
"Solutions, actions and benchmarks for a net zero emissions Australia" **Author: ClimateWorks Centre supported by CSIRO modelling.**				
Provides a guide for Australian government and businesses on priorities across technology acceleration, pathways and benchmarks for achieving net zero emissions by 2050. Climateworks is currently reviewing and updating these scenarios for publication in the second half of 2023.	Budget. Three scenarios are included which all achieve a net zero target by or before 2050. Both the "2C Deploy" and "2C Innovate" scenarios achieve net zero by 2050 and the "1.5C All-in" target achieves net zero at approximately 2035.	• Electricity • Transport • Industry • Buildings • Agriculture and land	2C Deploy: Emissions reductions for a 2.0°C degree global temperature limit. This is through government intervention to regulate emissions and deploy demonstrated technologies. 2C Innovate: Emissions reductions for a 2.0°C degree global temperature limit. Emerging technology is explored to create carbon reduction in emission-intensive sectors. 1.5C All-in: combines elements from both 2C models to limit emissions and facilitate technology innovation. Achieves net zero at around 2035.	The analysis utilises the Aus-TIMES Model, an Australian adaptation of a techno-economic modelling framework developed by the International Energy Agency (IEA).
"Sectoral Pathways to Net Zero Emissions" **Authors: Net-Zero Asset Owner Alliance (NZAOA) and University of Technology Sydney (UTS) Institute for Sustainable Futures**				
Modelled pathways for industries to take towards the Paris-Agreement goal across five key sectors requiring urgent decarbonisation. The authors will shortly publish updated scenarios for all G20 countries including Australia.	Budget (1.5ºC pathway of decarbonisation with a no/limited overshoot pathBudget (1.5ºC pathway of decarbonisation with a no/limited overshoot path.)	• Energy (primary and secondary) • Industrial (Cement, Steel, Chemical Industry, Textile & Leather, Aluminium) • Buildings • Agriculture, food processing, fisheries, forestry, wood and water utilities • Transport including aviation & road transport	1.5°C scenario for scope 1, 2 and 3 emissions.	This is the 4th iteration of this study. It builds on the One Earth Climate Model developed by UTS.

Context	Budget/point target	Sector coverage	Scenarios	Model
"Net Zero Australia: Final results from a groundbreaking study" **Authors: The Net Zero Australia partnership between Melbourne Energy Institute at University of Melbourne, the University of Queensland, Princeton University and Nous Group.**				
This analysis includes a detailed breakdown of possible scenarios and sensitivities at a sector level with high temporal and spatial resolution mapping of the transition infrastructure requirements for net zero emissions.	Point target, ie models a least-system-cost linear trajectory from 2020 to net zero in 2050 for Australia's domestic emissions and linear trajectory from 2030 to net zero in 2060 of offshore emissions from fossil fuel exports).	• Energy • Industrial • Transport • Land* * whereas other sectors are modeled in the economy-wide transition model, land sector including CO2 sinks and non-CO2 sources are subject to expert assessment of long term trends	Six core scenarios are included: 1. Reference scenario; 2. No constraint on GHG emissions; 3. Rapid electrification: including a full renewable rollout; 3. Slower electrification: including an unconstrained renewable rollout; 4. Full renewable rollout: no fossil fuel use by 2050; 5. Constrained renewables rollout; 6. Onshoring: domestic production of (clean) iron and aluminium displacing exports of iron ore, bauxite, alumina and fossil fuels.	This analysis downscaled across 17 areas of the economy using the modelling method developed by Princeton University and Evolved Energy Research for its 2020 Net-Zero America study (Larson et al., 2021). It also used from Evolved Energy Research the EnergyPATHWAYS tool and the Regional Investment and Operations tool.
"Decarbonising the NEM Report" **Authors: The Clean Energy Investment Group supported by analysis from Baringa Partners**				
Practical decarbonisation scenario for decarbonising the National Electricity Market (NEM) in line with 1.5°C.	Budget (the model is constrained by a 1.5°C carbon budget for the economy, as well as existing government commitments including a 43% carbon reduction by 2030 and net zero by 2050.)	• Electricity in the National Electricity Market (NEM) • It draws upon carbon budgets published by ClimateWorks for non-electricity sectors to develop the NEM carbon constraint.	Decarbonisation pathway for the NEM, aligning with a 1.5°C economy-wide carbon budget. It assumes current market design, policy, and network development from the AEMO ISP optimal development pathway. It also assumes a strong electrification of the economy, which increases NEM demand.	Baringa developed an independent NEM carbon trajectory using iterative modelling. This included investor views on the credibility of coal closures, new generation build, and future electricity demand to align with the top-down applied constraints. It draws upon carbon budgets published by ClimateWorks for non-electricity sectors to develop the NEM carbon constraint.
Additional relevant publications				
The Australian Energy Transitions Initiative, building on Climateworks Centre's scenarios, has produced analysis of credible pathways to industrial decarbonisation. See: Climateworks Centre and Climate-KIC Australia 2023, "Pathways to industrial decarbonisation: Positioning Australian industry to prosper in a net zero global economy", Australian Energy Transitions Initiative, Phase 3, Climateworks Centre.				

Table 1: Overview of existing national sector decarbonisation scenarios

6

National Greenhouse Gas Emissions Reporting Scheme (NGERS) Review

When it was introduced in 2007, NGERS was a world-leading reporting framework underpinned by robust systems. Its primary purpose was to allow the Australian Government to collect high-quality data to inform reporting on greenhouse gas emissions for Australia's national inventory and United Nations Framework on Climate Change (UNFCCC) reporting obligations.

Since then, expectations and needs associated with emissions disclosure have significantly evolved. There is now a wider group of stakeholders that require access to reliable information on corporate emissions. This group includes financial institutions, who need emissions data to inform their investment and lending decisions. There is also a wider group of stakeholders required to disclose their emissions: many Australian firms are already reporting their emissions under the Taskforce for Climate-related Disclosures Framework (TCFD). From 1 July 2024, large Australian businesses (including financial institutions) will be required to publicly disclose scope 1, 2 and 3 emissions under the Government's proposed climate-related risk disclosure framework. The framework will be expanded to apply to smaller businesses in subsequent years.

ASFI recommends that NGERS be adapted to meet these evolving needs and context. NGERS should be the 'one-stop shop' for corporate emissions reporting. This will require substantial changes to NGERS reporting obligations, the systems that underpin them, and the publication and accessibility of emissions data. These changes should be considered in parallel with the development of Australia's mandatory climate-related disclosure framework, taking a whole-of-Government approach.

Recommended changes to NGERS

ASFI recommends NGERS reporting obligations should align with those that will apply under the mandatory climate-related disclosure framework including:

- Thresholds for NGERS reporting obligations should match thresholds for the disclosure framework, meaning NGERS will have broader application;
- The scope of NGERS reporting should align with the reporting of emissions under the disclosure framework. This is likely to include the reporting of scope 3 emissions and cover all significant sectors of the economy and all significant greenhouse gasses. In particular, the current exemption from NGERS of emissions from the agriculture, land use, land use change, forestry, private vehicle transport and residential sectors should be removed. Although individual emitters in these sectors will often be well below the reporting threshold, their emissions will need to be reported as scope 3 emissions by larger entities (see Box 1: Agriculture and forestry emissions);
- Reporting periods and timing for submitting NGERS reports should align with the periods and timing of the disclosure framework to minimise double handling of information.

Box 1: Agriculture and forestry emissions

Increasingly capital will not flow into areas where there is significant uncertainty with respect to the quantification of climate-related risk. Excluding key sectors such as agriculture and forestry from emissions reporting under NGERs will have significant adverse impacts for the businesses in those sectors and the broader Australian economy. Sectors such as agriculture and forestry are highly trade exposed and increasingly likely to be subject to the impacts of external policies including Carbon Border Adjustment Mechanisms. We recommend phasing in requirements for agriculture and forestry, in consultation with industry stakeholders.

ASFI supports efforts by the CCA to recommend options to improve the accuracy and comprehensiveness of measurement, reporting and verification relating to methane. We note a growing recognition, including among finance sector participants, of the risks associated with methane both due to its potency as a greenhouse gas, and potential for existing methods of reporting to under-estimate the amount of methane emissions particularly from fugitive sources in the oil and gas sector.

Transparency and accessibility

Current NGERS reporting and data arrangements lack transparency. In particular, it is difficult to ascertain how facility level emissions relate to a particular corporate entity. ASFI recommends that transparency be improved in the following ways:

- Facility information should be linked to responsible entities, and entities should be required to report aggregate information across their relevant facilities.
- Emissions information should publicly be disclosed in an accessible format. There is no longer a compelling case for maintaining confidentiality or withholding emissions data.
- NGERS reporting systems should be integrated as far as possible with broader climate disclosure and reporting systems and should be taken into account for any future developments on the digitisation of sustainability-related reporting.