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Department of Environment, Science and Innovation  
Regional and Regulation Support  
Environmental Services and Regulation  
Via email: [RRS.Consultation@des.qld.gov.au](mailto:RRS.Consultation@des.qld.gov.au)

## **RE: Queensland Draft Greenhouse Gas Guidelines**

The Australian Energy Producers is the peak body of the explorers and producers of essential energy – oil, gas and lower-emission fuels. The industry supports around 32,000 jobs in Queensland and many more in electricity generation, manufacturing, transport, and other industries that rely on the sector's outputs. Our member companies spend over \$3.8 billion each year with almost 2,800 local Queensland businesses and contribute billions of dollars to Queensland Government revenue (state and local) through royalties and rates.

Our members are committed to the environmentally responsible development of Queensland's and Australia's natural resources for the benefit of communities both here and abroad, including Queensland's transition to net zero emissions.

We welcome the opportunity to make a submission on the Queensland Government's draft *Greenhouse Gas Guideline (the Guideline)*, as drafted by the Department of Environment, Science and Innovation (DESI) that sets the department's expectations for underpinning information requirements for Environmental Authority (EA) applications.

We acknowledge the Qld Government's commitment to addressing climate change through its Queensland Climate Action Plan including the setting of emission reduction targets. The Queensland Government is also clear in its support for natural gas as a crucial element of the state's current and future economic prosperity, energy security and reliability, and transition to net zero emissions. The ongoing supply of natural gas and petroleum is vital for energy security in Australia and abroad, and crucial to reduce the cost of energy to everyday Queenslanders.

Our submission identifies several key issues and recommendations in relation to the draft GHG Guideline:

- + **In principle, the Guideline should only require information that is of demonstrated high-value to the purpose of Environmental Authorities (EAs).** The EA process should focus on the significance and origin of impact to be addressed. Optimally, market-based instruments would be employed which enable project owners, who are best placed to maximise the associated benefits and minimise compliance costs, to develop their own solutions and responses to environmental matters.
- + **Many elements of the information requirements contained in the Guideline extend beyond current requirements.** The stated intent of the guideline is to clarify existing requirements and not represent new policy. However, the information required in the draft Guideline extend beyond current Qld legislative regulatory requirements. These requirements (provided in more detail below) should be refined in scope for the guideline.

- + **Many requirements do not have materiality thresholds making them excessive and inconsistent with managing scale of risk.** The Guideline effectively requires all EA applications regardless of emissions category to develop, submit and implement comparable levels and types of information regardless of their significance in terms of identified cause and effect (noting that low category projects don't need a management plan). This seems counter to the Government's efforts to further streamline Qld regulatory settings and ensure the EA approval process remains as cost effective as is possible.
- + **Scope 3 emissions should be dealt with consistent with international practice.** There is little justification outside of international compliance requirements (of which there are none) for any proposed category of project emissions to estimate, manage and report their scope 3 emissions occurring outside of Qld's border.
- + **Much of the information sought is duplicative.** The Guideline states that it is designed to avoid duplication of measures. However, overlap with other requirements remains, such as with the National Greenhouse and Energy Reporting Scheme (NGERS) and the Safeguard Mechanism (SGM), existing advice for EA's and EIS's (as they apply to Environmental Relevant Activities (ERAs) and Environmental Values (EVs); and similar guidance by other jurisdictions and at the national level.
- + **Broader National and State interests must be considered in parallel.** Natural gas is an integral part of our transition to a net zero economy. It is widely recognised as critical to emissions reductions as well as energy security. It is increasingly partnering with renewables and supporting the phase out of coal in the power grid. Requirements of the guideline go beyond national requirements and could materially constrain the ability of projects to progress.
- + **The Guideline contains no reference to cost effective compliance or least cost abatement.** The Guideline proposes standard criteria to apply to GHGs, referencing the 1992 Intergovernmental Agreement on the Environment (IGAE). It refers to three of the four IGAE principles omitting the 'polluter pays' principle. This latter principle (or similar) should be included in the Guideline to ensure that EA approval processes achieve environmental protection at the lowest compliance costs practicable.
- + **The requirement to monitor background emissions should be removed.** Legislative requirements must focus on anthropogenic emissions sources that can be directly and accurately measured. Further there are no Australian standards on how to measure such emissions, nor are there measures existing today in Australia, be they compliance based or emissions accounting or projections processes, that require such estimations.

The extensive and subjective nature of certain requirements in the guideline may increase sovereign risk, and have negative impacts on the economic development of Qld's resources sector, negatively impact supply and costs for reliant industrial and manufacturing users, and increase the costs of supply for domestic users – especially in remote and regional communities.

We strongly recommend that DESI undertake a review to map and align the terminology and requirements of the Guideline in order to reduce uncertainty on the extent to which this Guideline overlaps with the information requirements, regulatory obligations, and incentives.

We appreciate the collegiate manner in which DESI and the Qld Government have afforded to date us in these discussions, and we remain ready to further assist DESI in the drafting of a fit for purpose GHG Guideline.

# OVERARCHING COMMENTS

## Critical role of gas into the future

As the Qld economy pursues electrification in support of net zero emissions, gas will continue to underpin residential and industrial heating, as a primary chemical feedstock into industrial processes (steel, cement, ammonia, hydrogen), as well as support the transition away from higher emissions energies such as coal and diesel towards higher shares of grid-based renewables by firming the system and preventing associated outages due to increased intermittency and volatility of asynchronous (wind and solar) energies.

Natural gas electricity generation, particularly peaking plants, also helps to ensure electricity remains affordable, which in turn helps with the economics of electrifying process heat, transport and other energy uses.

As stated in the QLD Energy and Jobs Plan, natural gas peaking power currently represents the “*lowest capital cost per megawatt way to provide backup and peaking generation to a renewables-based system*”.<sup>1</sup> The plan notes that up to 3,000 MW of new low-to-zero emission gas-fuelled plant is required to manage ‘dunkelflaute’ conditions (little to no renewable energy generation is possible by wind or solar). This is in addition to the existing 1745 MW of open cycle gas turbines installed in Queensland.

The Australian Energy Market Operator (AEMO) recognises this firming requirement of the NEM in its draft 2024 Integrated System Plan (ISP) noting (p61): “*Renewable energy connected by transmission, firming with storage and backed up by gas is the lowest cost way to supply electricity to homes and businesses throughout Australia’s transition to a net zero economy.*”<sup>2</sup>

Our members are committed to the environmentally responsible development of Queensland’s and Australia’s natural resources for the benefit of communities both here and abroad, including Queensland’s transition to net zero emissions.

## National interest

DESI should disclose any expected economic and emissions impacts of the requirements proposed in the Guideline. The requirements of the Guideline extend beyond being advisory in nature, and the potential future regulatory requirements could serve to materially constrain the ability of new projects to progress.

If the Guideline proceeds as drafted, it will hold consequential impacts for the economic development of Qld’s resources sector, negatively impact supply and costs on reliant industrial and manufacturing users, and increase the costs of supply on domestic users – especially in remote and regional

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<sup>1</sup> [www.epw.qld.gov.au/data/assets/pdf\\_file/0030/32988/queensland-supergrid-infrastructure-blueprint.pdf](http://www.epw.qld.gov.au/data/assets/pdf_file/0030/32988/queensland-supergrid-infrastructure-blueprint.pdf)

<sup>2</sup> [www.aemo.com.au/-/media/files/stakeholder\\_consultation/consultations/nem-consultations/2023/draft-2024-isp-consultation/draft-2024-isp.pdf](http://www.aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/draft-2024-isp-consultation/draft-2024-isp.pdf)

communities.

This is also true nationally as existing gas fields in the southern states decline and the demand for (and dependency) on Qld gas grows. This has significant consequences for Australia's energy security, reliability and affordability, as well as for the economic prosperity of the many industry sectors reliant on gas, and communities dependent on residential gas.

New investment is required in Qld's gas supply noting a lack of availability of gas nationally for generation (Qld's existing gas plant [footprint](#) in the NEM is 3GW) will contribute to upward pressure on wholesale electricity prices.

Flexible gas-fired generation is required to enable more renewables into the NEM (grid firming) by ramping up generation when required. This is essential to deliver a clean energy transition to net zero emissions.

It is critically important that the Guideline does not add additional sovereign risk to investments in Qld; the role of Government and/or administering authority should be to reduce sovereign risk to as low as practicable for all legitimate near and net zero emissions investments to facilitate national economy-wide alignment with a net zero future. An increase in sovereign risk has the potential to derail economic development by slowing and/or restricting the availability of capital, insurance services, research and access to leading edge production and mitigation technologies.

## Potential for unintended scope and drafting creep

We recognise that GHG emissions are an existing element (among many others) of the information requirements administering authorities need to make decisions on EA applications under the EP Act. However, we also note that the initial purpose for introducing "emissions or releases" into the was not for GHG related purposes, but rather for other emissions such as noise, smoke, dust, fumes or odour. The legislative intent of the EP Act passed in 1994 was to control non-uniformly and highly concentrated (non-CO<sub>2</sub>-e) emissions where activity level impacts on the environment are localised, readily identified and attributable.

These same provisions arguably pose greater challenges for administering authorities and EA applicants when applied to globally uniformly mixed and diffuse GHG gases, whose contribution to global atmospheric concentrations is the same *regardless* of where they are released. Emissions from local and global projects therefore should be evaluated in a wider system-wide context.

The Guideline also falls short of consistently applying this requirement to all sectors, in particular it explicitly excludes livestock emissions. This imposes a disproportionate burden and share of abatement on a select cross-sample of sectors and causing disadvantage to one industry. Livestock emissions are predominately represented by enteric fermentation emissions and are responsible for about 10 per cent Qld's emissions (16MtCO<sub>2</sub>-e) compared to about 6 per cent from oil and gas extraction (6.5MtCO<sub>2</sub>-e) plus all fugitive emissions (3MtCO<sub>2</sub>-e) from coal, oil and natural gas.<sup>3</sup>

DESI suggests that the Guideline is not policy but guidance. The information expectations in the Guideline extend beyond current Qld legislative and regulatory requirements in that none explicitly refer to GHGs either by individual gas, emissions reduction targets, emissions threshold triggers,

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<sup>3</sup> <https://greenhouseaccounts.climatechange.gov.au/>

global warming impacts, adaptation or resilience, or preferred management controls.

This implies that the information requirements identified in the Guideline likely reflect more policy aspiration and ambition than necessary and efficient compliance obligations. This is not saying that GHGs should not be considered, but that much of the information being asked for is in excess of what would be the requirements in the absence of such a guideline.

For example, the Guideline notes on page 12 that *“it is difficult to determine the likelihood and magnitude of impacts to EVs from an individual project’s GHG emissions”* which we strongly agree with. We consider this statement is heightened especially in the context of scope 3 emissions; however, the Guideline requires all emissions project categories regardless of materiality (high, medium, and low) to address scope 3 emissions in some manner. The value of this to EA decision making has not been justified.

Further, the Guideline remarks that *“any GHG emissions increase the risks, and the larger the scale of emissions the more significant the contribution”* qualifying this with *“the magnitude of impacts will be connected to a project’s proportion of global emissions.”* We show in our submission that such a qualification renders Qld GHGs mathematically insignificant on a global scale with implausible delineation as to their consequence (cause and effect) for global warming and its subsequent impact on local matters.

The impacts of global warming on a local scale is driven by historical and cumulative global levels of net anthropogenic CO<sub>2</sub>-e emissions that have been released into the atmosphere since 1850 (post-industrial period). Qld project level GHGs are infinitesimally small as a percentage of global emissions at any point in time let alone on a cumulative basis either from 1850 to today, and/or of the remaining global budget. This is not to say that no action should be taken, but intends to highlight the reality that the emissions from individual EA-regulated operations are in themselves of little impact.

## Potential for information over-reach

The Guideline effectively adopts a default requirement for all new and amended EA applications to conduct and submit a GHG EIS. This extends beyond the advice of co-existing guidelines such as the [“Criteria for environmental impact statements for resource projects under the Environmental Protection Act 1994”](#) (EIS Guideline), which advises proponents to seek a decision from the Chief Executive of the administering authority prior to applying for an EA to confirm whether an EIS is required or not.

The Guideline also offers no materiality thresholds to trigger higher order (costlier) information requirements as the above guideline does, which expresses a preference to moderate information requirements based on activities triggering certain thresholds such as disturbance areas >2000 hectares, high pressure pipelines exceeding >300 kilometres, the construction of a liquefied natural gas (LNG) plant, or a Chief Executive decision.

Additionally, the established guideline [“Assessment requirements for an environmental authority for an environmentally relevant activity”](#) (EA Guideline) contains no explicit reference to GHGs other than for geological storage purposes. DESI should give further thought to enhancing this existing guideline rather than developing a new Guideline that has singular focus on GHGs given it is one of many important elements that administering authorities need to consider and balance along with other important considerations in their decisions.



The Guideline effectively requires all EA applications, regardless of emissions category to develop, submit and implement comparable levels and types of information regardless of their significance in terms of identified cause and effect (noting that low category projects don't need a management plan). This seems counter to the Government's efforts to further streamline Qld regulatory settings and ensure the EA approval process remains as cost effective as is possible.

The Guideline is also prescriptive in its information requirements, which will likely add significant administrative costs for both applicants and administering authorities alike. The broad scope of what is being asked for is generally considered reasonable and includes the identification and estimation of relative magnitudes (scale and risk) of emissions and impacts (including uncertainty) on matters of state environmental significance (water quality, air, noise, and resources), environmentally sensitive areas (Category A, B and/or C),<sup>4</sup> of public interest, national environmental significance (EPBC Act), social and economic impacts, and cumulative impacts. But additional uncertainty (and arguably cost) to the current EA process arises from the uncertainty of the depth of information required ambiguity and inconsistency of estimation calculations, as well as the value of some information points (given their accuracy and function).

DESI observed in a recent workshop that they regard cumulative impacts as being an especially important element of their EA related decision-making process. The EIS Guideline also states that 'a decision may be made that an EIS is required for an application if the project is likely to contribute substantially to cumulative impacts, even when a project does not meet the EIS triggers alone.'

The application of considerations such as cumulative impacts, at the time they were drafted in statute, were intended more for concentrated and non-uniform emissions with identifiable localised impacts (e.g. from pollutants) rather than diffuse and uniformly mixed GHGs with arguably unattributable global impacts at a localised level. The ability to accurately attribute global warming impacts to 'local airsheds, regional water catchments, or the EVs of aquifers' (EIS Guideline, p3) is practicably implausible despite global warming being driven by global levels of historical cumulative net CO<sub>2</sub>-e emissions.

Such guidance provides administering authorities with very high levels of discretion to exercise normative rather than scientifically informed judgements. Noting that an individual project's scope 1 and 2 emissions are mathematically insignificant at the global level, the Government should exercise caution to ensure Qld projects are not discriminated against because their scope 3 emissions, which:

- do not impact on Qld's or Australia's emissions reduction targets;
- are not material relative to an undisclosed threshold considered appropriate by administering authorities;

EA applications should not be disadvantaged simply because they follow earlier applications (and are judged therefore as disproportionately adding to the global stock of GHG emissions).

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<sup>4</sup> Schedule 19 of the Environmental Protection Regulation 2019 (EP Regulation).

## COMMENTS ON THE DRAFT GUIDELINE

The following comments follow the structure of the draft Guideline.

### GHG EMISSIONS

#### Scope 3 emissions

There is little justification for any proposed category of project emissions to estimate, manage and report their scope 3 emissions as they occur outside of Qld's border. The Guideline's treatment of scope 3 emissions is ambiguous as it states in Section 3.1.1 (p6) that while they are not to be included in a GHG abatement plan, Table 4 (p9) indicates that all project category emissions (high, medium, low) are required to identify GHG mitigation and proposed management practices for scope 3 emissions where possible (according to the proposed hierarchy on p10).

The Guideline recognises scope 3 emissions as separate from the activity being approved noting that they are "emissions sources not owned or controlled by that activity." Neither the Australian or Qld governments are legally liable for accounting or acquitting for scope 3 emissions occurring beyond their borders, and so these emissions do not affect the ability of Australia to achieve its legislated emissions reduction targets nor Qld to achieve its published emissions reduction ambitions. This does not imply a disregard for global emissions but is rather a deliberate and intrinsic feature of the Paris Agreement.

If scope 3 emissions are immaterial to Qld's ability to meet its targets and/or enhance environmental protection, then their inclusion in the Guideline should default to the Commonwealth's imminent mandating of climate-related financial disclosures (CRFD) and subsequent national treatment of scope 3 emissions.

Estimating scope 3 emissions continues (and will continue) to be frustrated by methodological issues going forward. The Guideline acknowledges the existence of many different emissions estimation methodologies by referencing them, in addition to many that are not referenced. Estimates included in EA applications will generally not be comparable across other scope 3 emissions estimates due to empirical inconsistencies. This further diminishes the value of scope 3 emissions estimates for decision making purposes.

Further, EA applicants will be legally restricted from accessing confidential and commercial emissions data sets owned by other entities, depriving them of knowing the fate of mid- and downstream emissions that were embedded in their products.

This challenge is further complicated by a lack of data quality assurance and inability to identify let alone characterise and report on the progress of emissions controls and management initiated by legally separate companies located in other jurisdictions and/or countries. The Guideline includes an impractical suggestion of applicants outlining commercially sensitive 'arrangements with third party suppliers or users' and 'whether the locations they land in are subject to similar emission reduction requirements.' Indeed, second guessing such information requirements upfront in an EA application

could make it vulnerable to material amendments later on after approval, subjecting it to even more regulatory uncertainty and compliance burdens.

The requirement for scope 3 emissions should be removed from the Guideline.

## Background emissions

The Guideline asserts that the identification of natural background emissions (including nonanthropogenic fugitive emissions) sources can assist in accurately measuring emissions. However, the only emissions that matter in regard to influencing the ability to achieve Qld's published emissions reduction targets are anthropogenic point source emissions (scope 1 and 2) released within Qld's border which can be directly and accurately measured, monitored and/or indirectly estimated and tracked by proxy algorithms for compliance purposes.

The Guideline offers no clarity on how an applicant would conduct such an assessment. This requirement should be removed on the basis there are no Australian standards on how to measure such emissions, nor are there measures existing today in Australia, be they compliance based or emissions accounting or projections processes, that require such estimations.

## Project category emissions thresholds

Qld's large scale industrial emissions reductions and reporting is already being driven at the national level through NGERs and the SGM, as well as the ACCUS, the Renewable Energy Target (RET) and other measures. The future development of whole of economy transition plans under the National Net Zero Plan is expected in 2024 with the underlying principle adopted for all these measures being to facilitate lowest cost compliance and least cost abatement.

The Guideline is void of any reference to cost effective or lowest cost compliance and this is a key principle that should be included to ensure the EA process remains cost effective. Cost effectiveness requires a balance in the Guideline between the level of information required to understand significance and origin of emissions relative to the cost to applicants of providing the information as well as administering authorities processing that information.

We also note that the proposed 'emissions project categories' do not align with either NGERs or SGM as illustrated in the table below. Neither NGERs nor the SGM include facilities emitting less than 25,000tCO<sub>2</sub>-e per year.

	Draft Guideline (tCO <sub>2</sub> -e)			NGERS (tCO <sub>2</sub> -e)			SGM (tCO <sub>2</sub> -e)			
	Category	Scope 1	Scope 2	Scope 3	Category	Scope 1 & 2	Scope 3	Category	Scope 1	Scope 3
Facility	High	>100,000	-	Reported	None	>25,000	Estimated but not reported	None	>100,000	Not estimated and not reported
	Medium	>25,000		Reported						
	Low	<25,000		Reported						
Corporate	-	-	-	-		>50,000			-	

Source: Australian Energy Producers (using [NGERS](#) and [Safeguard Mechanism](#) webpages)



The SGM reforms recently [assessed](#) that an expansion to its covered emissions to a lower threshold of 25,000 or even 50,000 tonnes per year would not cover significantly more emissions<sup>5</sup>.

We recommend that the guideline exclude the 'low' emissions project category of below 25,000tCO<sub>2</sub>-e per year; and make some of the information requirements for the 'medium' category, such as the need to develop, submit and implement a comprehensive GHG EIS, conditional on the significance and origin of likely impacts.

## Administrative burden

The Guideline specifies that all EA applications, regardless of whether large or small, need to include at a minimum a comprehensive emissions inventory of annual net scope 1 and 2 emissions, and natural background emissions. This must be done by stage of project (planning, commissioning, operational, decommissioning, maintenance, and incidents) for each point source of emission and over the life of project, as well as estimate and report on the management of scope 3 emissions for the same period.

All estimations and plans need verification by an appropriately qualified person, with all high and medium emissions category projects needing to develop, submit and implement GHG mitigation management plans for scope 1 and 2 emissions.

A practical effect of these information requirements is that each project that has multiple EAs covering many ERAs and literally dozens of EVs will need to submit a GHG EIS on the likely impacts of individual GHGs (6 listed), from many different point sources, across different and complex engineering and operational stages of long-lived projects, and a potentially infinite number of EVs including global warming impacts.

The burden will be most pronounced for smaller, low category projects as they have comparable information requirements to high project emissions category of >100,000Kt CO<sub>2</sub>-e (scope 1) per annum.

High emission projects are expected to:

- estimate their scopes 1, 2 and 3 emissions;
- identify background emissions;
- identify GHG mitigation and management practices proposed including for scope 3 in a GHG abatement plan; and
- identify all GHG related risks and magnitudes of impacts on every identified EV.

Even for high emissions projects, the practicality and value to decision makers of applicants submitting full GHG mitigation and management practices for scope 3 emissions released to atmosphere outside of Qld's border and for background emissions is superfluous given neither impact on achieving Qld's emissions reduction targets (see Scope 3 emissions).

Essentially the same information expectation as above applies to the medium emissions category of >25KtCO<sub>2</sub>-e (scopes 1, 2) per annum despite emissions being materially smaller. It is also not clear why this project category is inconsistent with the high category by its inclusion of scope 2 emissions in

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<sup>5</sup> [www.oia.pmc.gov.au/sites/default/files/posts/2023/05/Publish%20Version%20-%20Impact%20Analysis.docx](http://www.oia.pmc.gov.au/sites/default/files/posts/2023/05/Publish%20Version%20-%20Impact%20Analysis.docx)

its trigger threshold. Scope 2 emissions necessarily reflect the emissions intensity of the National Electricity Market (i.e. purchased power) and rests outside of EA applicant's ability to control.

The Guideline sets the expectation that this category provides the same level of information and quality assurances as the high emissions category projects. It would seem reasonable given diminished significance in terms of cause and effect, that they be regulated in a manner that proportionately reduces their administrative and compliance costs when compared to the high emissions category.

The low emissions category of <25KtCO<sub>2</sub>-e (scope 1, 2) per annum should not be included in the Guideline on the basis of proportionate cause and effect. The SGM reform process finds little reason to expand coverage to include this level of threshold (or indeed up to 50,000tCO<sub>2</sub>-e per facility per year), the Guideline still imposes information requirements comparable to that of the other two categories.

Although the low category is not required to provide a formal GHG abatement plan, they are still required (Table 4) to identify all risks and likely magnitude of impacts to EVs and identify GHG mitigation and management practices proposed including for scope 3 (which are arguably core elements of an abatement plan).

The level of administrative effort and upfront costs to fulfil all information requirements could prove prohibitively costly for many low and medium category projects. Emissions materiality and cause and effect of environmental harm should be prime considerations for administering authorities.

The low emissions project category should be removed from the Guideline; or at a minimum a sequencing in the three categories over a reasonable period of time commencing with the high category, and with provisions for conditional exclusions for the other two categories. This could include for example removing certain requirements if it can be demonstrated that accurate estimates are not possible due to information asymmetry issues and/or legally inaccessible data sets.

DESI have expressed an expectation for a general description of higher order impacts such as 'sea level rise' as sufficient for a water-based EV, but this needs deeper clarification in the Guideline to avoid any ambiguity and/or cause under/over compliance when compared to an administering authority's expectations.

There also needs to be assurances given to applicants that all aspects of the information being asked for in support of EA applications are of sufficiently high value within their decision-making process. For resource projects, the authority is DESI, but for prescribed ERAs, it could well be local government who may inconsistently manage EA applications based on some discretionary view of whether a project is high or low risk.

The Guideline should also make clear how its information requirements avoid duplication. It is apparent that an EIS under the EP Act cannot be used for decision making under the Planning Act (p62); and an EA application is additional to the tenure requirements under resource legislation as listed in Schedule 2 of the EP Reg, the Petroleum and Gas (Production and Safety) Act 2004, and Petroleum (Submerged Lands) Act 1982, Petroleum Act 1923) – noting these include activities governing the manufacture and transport of hydrogen, while CCUS activities come under the Greenhouse Gas Storage Act 2009 (for CCUS).

## **RISKS AND MAGNITUDE OF IMPACTS ON ENVIRONMENTAL VALUES (EVs)**

### **Environmental Values Inventory**

It is not possible to attribute a particular project's GHGs contribution to the enhanced greenhouse effect (human-induced global warming) and their corresponding share of impact on EVs.

**Environmental Values** (EVs) cited in the EP Act include ecological health, public amenity, safety (or such things declared under an environmental protection policy). This list expands when considering the Economic Development Queensland Environmental values and sustainable resource use [Priority Development Areas](#) (PDA) Guideline (p14) to include terrestrial biodiversity values, ecological connectivity, sustainable landscaping practices, bushfire risk management, wetlands, waterways, and water quality also included.

The *Environmental Protection (Air) Policy (2019)* further cites as potential EVs the health and biodiversity of ecosystems, human health and wellbeing, environmental aesthetics (including the appearance of buildings, structures and other property), and agricultural use of the environment.

The Guideline should provide clarity to proponents that the assessment and consideration of risks should be commensurate with the potential environmental impact on EVs (i.e. the value is considered more vulnerable to climate change factors).

The guideline should also provide detail on how an applicant should conduct an assessment in support of undertaking the GHG assessment for EA approval purposes. This will help reduce any uncertainty applicants hold as to the level of information expected, as well as avoid administrative overreach on GHG risk assessments by identifying upfront what is considered a priority given a potentially infinite number of EVs at the surface, near sub-surface and deep-surface ecosystems, macro- and microbiota levels, and for which there could be an infinite number (i.e., insects, fungi, and bacteria).

### **Attribution of localised emissions to global impacts**

The Guideline requires localised GHGs to be attributed in some manner to the global warming impacts on local EVs and/or human rights matters.

What matters most for EA approvals is the significance and origin of any harm caused to local EVs meaningfully attributed directly or indirectly to Qld project level activities. The direct cause and effect of GHGs on local EVs is arguably comparatively simple to establish compared to their indirect contribution to global levels of average surface temperature warming and subsequent impacts.

For example, a GHG leakage could directly impact on a local environmental value directly around the release. However, diluted concentrations are generally insufficient to cause direct, observable effects on individual organisms or values. The contribution of the same GHG molecules to global warming (assuming they are ultimately released to atmosphere) is much less identifiable, measurable and material. The location of where a GHG molecule is released into the atmosphere does not matter; it adds in a uniform way to other GHG sources to the global stock of emissions.

The impact of global warming however is non-linear and tends to be quite location specific. These impacts are not unilaterally driven by the emissions signature of any single Qld project but rather the global levels of historical and cumulative net anthropogenic emissions emitted since pre-industrial times.

## Likely magnitude of impacts

The Guideline states that likely magnitude of impacts for medium and high emitters would include a comparison of expected project GHG emissions with the remaining global, national and state emissions budgets. Estimates of remaining global budgets however are very dependent on a range of factors including:

- an assessed likelihood of outcomes (IPCC qualifies with probabilities)<sup>6</sup>;
- quality of future scenarios and projections (including accuracy of agricultural and land-use emissions);
- exogenous and non-linear factors;
- CO<sub>2</sub> specific estimations;
- non-CO<sub>2</sub> specific estimations (including global warming potentials which has changed for methane several times in over the past decade) and so on.

The IPCC's 6<sup>th</sup> Assessment Report (Table SPM.2) cites ranges for the remaining global budget as between 300GtCO<sub>2</sub> and 900GtCO<sub>2</sub> (83% likelihood of containing temperature to between 1.5 and 2 degrees Celsius) and 900GtCO<sub>2</sub> and 2,300GtCO<sub>2</sub> (17% likelihood of containing temperature to between 1.5 and 2 degrees Celsius). A hypothetical Qld project emitting 1.5MtCO<sub>2</sub>-e per annum (which represents the average annual emissions of oil and gas SGM facilities) for example would contribute just 0.003% to annual global emissions (currently estimated to be [55GtCO<sub>2</sub>-e](#)) or over a 30 year project life just 0.002% to the global level of historical cumulative net CO<sub>2</sub>-e emissions (IPCC estimates [2,400GtCO<sub>2</sub>](#)).

The same Qld project for example would contribute just 0.008% to the low end of the remaining global budget estimate (300GtCO<sub>2</sub>-e) or just 0.001% to the high end of the remaining budget global estimate (2,300GtCO<sub>2</sub>-e).

The materiality of any single Qld project's emissions contribution to global warming is practically zero regardless of how it is measured globally. A better metric needs to be developed to inform decision makers on the materiality of project level emissions.

At the domestic level, this requirement also introduces uncertainty and ambiguity for applicants (especially for high and medium category emissions projects) who need to demonstrate in a GHG abatement plan how their projects will be developed, operated and reported on in a manner that meets Australian (including SGM) and Qld emission reduction targets.

The only relevant legislated emissions reduction target affecting Qld projects is the national target and those prescribed under the SGM. Qld targets are still expressed as policy aspirations, although legislation is being introduced to legislate them.

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<sup>6</sup> Including: virtually certain 99–100 per cent, very likely 90–100 per cent; likely 66–100 per cent; about as likely as not 33–66%; unlikely 0–33%; very unlikely 0–10%; and exceptionally unlikely 0–1%

The Commonwealth's [Climate Change Act](#) (CC Act) refers to the national 2030 target as being implemented as both a point target and an emissions budget covering the period 2021 to 2030. These targets are communicated in Australia's Nationally Determined Contribution which can be interpreted as reasonably aligning with what is considered an equitable mitigation contribution in support of the climate goals of the Paris Agreement; and are different to Qld's policy ambitions.

Australia's carbon budget under the CC Act is calculated as a straight-line trajectory linearly decreasing over the period 2021 to 2030. This is an overly simplistic representation of the mitigation challenge facing Australia and is clearly very different what would be expected in the real economy, where absolute emissions will rise and fall depending on levels of production and rates of improvement in emissions intensities.

Two approaches to comparing project level emissions to a remaining carbon budget (be it global, Australia's or Qld's) include estimating its share of emissions and/or comparing its mitigation rate (slope of emissions decline rate). Both arguably lend themselves to inconclusive findings and subjective assumptions.

As EA applications approach 2050 they will clearly represent higher shares of an ever-diminishing available emissions budget to net zero emissions. The Guideline should include a principle stating that from the time of its adoption, administering authorities will not discriminate against new applications relative to earlier applications simply because they sequence later in the EA approval process.

The second approach of comparing mitigation rates over a project's lifetime with Australia's and Qld's linear pathway to net zero will also prove mathematically insignificant. For example, we estimate Australia's annual mitigation rate (economy-wide) to 2050 needs to be about 17MtCO<sub>2</sub>-e per year compared to Qld's 6MtCO<sub>2</sub>-e per year (or about 30%). The project yields a mitigation rate to net zero over its 30 year economic life of about 0.05MtCO<sub>2</sub>-e per year or just 0.3% of Australia's rate and 0.9% of the Qld rate.

It is further noted that the CC Act does not impose obligations directly on companies but provides for sectoral-based reforms in support of the 2030 target and emissions budget. The ability to align project GHGs to state or national or global carbon budgets is not required under any Australian legislation.

Judgements about project level emissions aligning with state based or national or international remaining carbon budgets bestows significant discretionary powers on administering authorities to impose what they might unilaterally believe is an appropriate mitigation task, expressed either in absolute emissions reductions and/or rate of decline and/or in relative terms such as emissions intensity, for new and amended applications. This is not consistent with nationally consistent approaches on emissions reduction.

Administering authorities need to recognise that Australia's and Qld's emissions reduction outcomes do not rely on or require every facility in every sector to achieve the same level of mitigation outcome or mitigation rate at the same time or over time. If this were the case, it would run directly counter to facilitating lowest cost abatement (recognising projects have different marginal costs of abatement) and could add significant economic costs to achieving targets. In short, 'overs and unders' do not compromise reaching the targets.

Other matters needing acknowledgement in the Guideline include the fact that the Australian Government alone holds constitutional responsibility for Australia's compliance under the United



Nations Framework Convention on Climate Change (UNFCCC), and not the Qld government nor the private sector. The climate goals of the Paris Agreement include an end of century balance between sinks and sources, and not by 2050 as Qld and many sovereign nations emissions reduction targets have adopted as informed by the findings of the Intergovernmental Panel on Climate Change (IPCC) 6<sup>th</sup> Assessment Report.

The consequence of administering authorities assessing project alignments incorrectly will be profound for EA applicants. For example, the Guideline states (p20) that “*interim measures may be required to meet targets including shutting down operations and temporarily reducing operation throughput.*” This reference is an example of administrative overreach and should be removed from the Guideline.

## **ADMINISTERING AUTHORITIES USE OF GHG INFORMATION PROVIDED**

### **Administering authority GHG assessments**

Sovereign risk and investment uncertainty could be imposed on a project depending on the assessment of whether an activity’s GHGs cause ‘significant additional’ harm (direct or indirect; unilateral or cumulative) on an EV and subsequently deeming it a major amendment.

Again, considerable discretion is afforded to administering authorities given neither ‘significantly’ or ‘additional’ are defined in the EP Act, or in the [‘Major and minor amendment’](#) guideline, or in this Guideline, presenting substantial investment risk to project proponents and owners.

The very nature of scenario analysis upon which annualised forecasts of emissions over a project’s lifetime will inevitably and materially fluctuate as operating environments change, forecasting methods change, economic models revised, and more information gathered to inform projections.

It is probable and plausible that periodic revisions and updates to original emissions projections could require approved EAs to be amended and be deemed by an administering authority as ‘major’, subsequently triggering them to be re-processed as a site-specific EA application and creating scope for further investment uncertainty.

Further guidance is needed as to what ‘significant’ and ‘additional’ means within a GHG context, and to ensure consistency in decisions across administering authorities for EAs amendments. The updating of approved EAs developed and submitted in good faith should not be made vulnerable to potentially being subsequently overturned by an administering authority due to revisions made to emissions projections.

### **Assessment process and conditioning**

The Guideline acknowledges that GHGs are just one aspect of the EA decision-making process. While an important element, it falls within many other Government priorities including socio-economic goals of economic growth, job creation, provision of essential services, and preserving living standards etc. For instance, the need to maintain energy security, the use of natural gas as an

irreplaceable feedstock for industrial processes (such as fertilisers), and the importance of resource development to Queensland's economic prosperity.

It remains critically important that administering authorities in their decisions on EAs balance the totality of all impacts with benefits and can transparently demonstrate the decision-making process.

The EP Act and the Guideline require for relevant environmental protection policies, excluding prescribed ERAs, 'consideration' by administrators for the relevant management hierarchy and management intent (among others) (Part 2.35, p34). Administering authorities are again afforded a very high level of discretion on what 'consideration' means in the context of their decisions.

The Guideline should include a Qld Government policy hierarchy that clearly identifies its policy priorities to inform administering authorities how to transparently apply an appropriate weighting to key elements being considered including GHGs. If EA decisions are made primarily through a climate lens that heavily relies on theoretical possibilities, especially regarding the effects of project emissions on global climate change, then they may well lead to perverse, unforeseen, and/or unintentional economic, social and environmental outcomes.

A policy hierarchy would help minimise any scope for unelected officials to impose mandatory emissions limitations on Qld economic activities due to a misrepresentation of the Qld Government's policy intent across a portfolio of complex policies.<sup>7</sup>

## **EA conditioning within a context of broader policy and regulatory settings**

Point source GHG emissions reductions that can be delivered in a technically and commercially practicable manner clearly need to be given effect by Qld emitters in accordance with regulatory compliance and their own assessments of their future carbon risks.

Consideration also needs to be given by administering authorities to the many other factors affecting a project's capacity to contain, abate and manage their emissions appropriately including the technological pathways available to them to transition to net zero emissions.

The extent to which they can access, adapt, adopt or licence, and deploy the required technological innovations needed to retrofit or repower legacy assets as well as in the upfront design of new facilities are important influencing factors.

## **Importance of recognising technology pathways**

The Guideline provides no guidance on technology other than referencing "management practices should demonstrate that all reasonable and practical measures have been applied to avoid and mitigate emissions through best practice design, process, technology, and management following the GHG abatement hierarchy" under Section 3.3.

Climate policy development in Australia holds central the capacity of technology to help all sectors and communities transition to net zero, be it mitigation, adaptation and/or substitution of carbon

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<sup>7</sup> EP Act (Part2.36.f, p36) states under Conditions to be considered 'restricting the type, quality, quantity, concentration or characteristics of contaminants that may be released'.

intensive materials for less so. The SGM, ACCUS, and various Australian Government policy statements over the past decade coupled with billions of public and private dollars invested each year in research, development and demonstration (RD&D) affirm this as a priority in any climate response.

The Guideline's presumption that all new EA applications will be technologically ready to invest in and operate the highest emissions performance innovations is unrealistic given the highly complex engineering and financial requirements of the many stages of a technology's development lifecycle and commercial deployment.

## Hierarchy of preferred actions

The Guideline proposes a management hierarchy which is inconsistent with the EP Act and states its provisions "*do not limit measures to which regard may be had in deciding the best practice environmental management of an activity*" (p56). Further consideration needs to be given to the appropriateness of the Guideline's GHG management hierarchy (avoid, reduce, substitute, and offset), and whether it requires one at all and/or expanding it to include other equally as legitimate GHG management practices such as reuse, minimise, manage, contain, and abatement (among many others).

Where possible, the Guideline should focus on outcomes rather than prescription as to how those outcomes are to be achieved. Proponents need to be allowed to operate and comply in innovative ways by choosing how they can best achieve the outcomes. Such flexibility can assist to [reduce](#) (p11) the real cost of regulations.

Neither NGERs nor the SGM adopt mitigation hierarchies. The EP Regs (air emissions) adopt a different hierarchy of avoid, recycle, minimise, manage; and the IGAE's 'polluter pays' principle (excluded from the Guideline's reference to its principles) emphasises cost-effectiveness. Clearly there is scope to cherry pick any number of management options for the Guideline, but at its core, there must be a need to facilitate least cost abatement and lowest cost compliance.

Imposing a prescriptive hierarchy on the decisions of administering authorities could serve as another barrier to entry for new projects as well as for the transfer and diffusion of higher emissions performance technologies in Qld should new projects be consequently blocked.

We recommend the hierarchy as presented in the Guideline be removed or clarified to include cost-effective GHG management (e.g., re-use, recycle, compensate, acquit allowances, etc) and control (CO<sub>2</sub> storage etc) options.

## Technology reviews

The Guideline requires EA applicants to provide in their GHG abatement plans regular reviews of new technologies to identify opportunities to further reduce emissions and use energy efficiently (Appendix A., p20).

The guideline should be more flexible to consider how technological advancements are made, and the administering authorities also need to have fundamental competencies in the technical and market readiness levels of a broad portfolio of GHG solutions when considering abatement plans.

Many of the technological options to decarbonise gas, liquid natural gas (LNG), and other production

processes such as cement (gas generates high heat), iron and steel (gas is a reductant, a source of heat and fuel, power generation, and in cutting and welding applications) at pace and scale are in pre-commercial stages of their technology cycles due to the sophistication of engineering requirements.

Some of these solutions, such as carbon capture, utilisation and storage (CCUS), also provide for environmentally responsible poly-generation opportunities applications producing food grade CO<sub>2</sub> (displacing natural CO<sub>2</sub>), industrial chemicals, blue hydrogen, syngas and all can substitute for and reduce the emissions of higher emissions feedstocks (diesel, coal) while simultaneously managing many non-CO<sub>2</sub> pollutants (mercury) bestowing many other environmental co-benefits.

There are also many factors that can influence an entity's capacity to take climate action including the availability of skills (such as Science, Technology, Engineering, and Mathematics or STEM). All of these factors make for real world considerations on a project's Front End Engineering Design (FEED) viability, and if ignored, can serve to undermine new technology development, adaptation, transfer, and deployment in Qld by encouraging little to no investment in near- and zero emissions technologies and/or imposing prohibitively costly capital premiums on nascent and/or pre-commercial solutions.

Our sector and the Qld Government both understand that the adoption rates of innovations are non-linear (Scurve); they initially start slow, rise rapidly as market penetration grows, and flatten out as market saturation is reached. This is Australia's experience with wind and solar technologies which have been nurtured and driven on the back of over 20 years of a guaranteed commercial market under the Renewable Energy Target (RET) with additional public policy support expected going forward including the Capacity Investment Scheme (CIS).

Technology deployment prices, demonstrated in Australia by wind and solar, can drop and continue to drop much deeper and faster than either industry or governments believe possible. Administering authorities need to have due regard for these solutions and their stages of technology cycles, as well as the potential slope of the rising part of the S-curve which drives the pace, scale and commerciality of mitigation solutions.

## **Safeguard Mechanism (SGM)**

There is a need for the Guideline to hold the highest level of complementarity and consistency with national measures such as the SGM.

All administering authorities should be able to demonstrate a deep understanding of the many design elements and operationalisation of the SGM, and EA applicants should be able to hold high confidence in these administrative competencies.

The SGM is inherently complex, but it is delivering on its objectives as Australia's flagship measure to reducing industrial emissions, including Australia's legislated emissions reduction targets on a mitigation and technology neutral basis at least cost.

The SGM for example treats facilities differently depending on their stage of operation. Operational facilities for example are grandfathered allowable baselines orders of magnitude higher than what new facilities can expect on a presumption that (a) legacy investments have been made in good faith based on prevailing investment settings (which continue to evolve), and (b) new facilities can include in their upfront design best practice technologies and processes.

In regard to best practices, the Guideline should propose a set of project relevant guiding principles that give effect to the EP Acts Subdivision 5 Section 21 (p56) requiring consideration of, but not limiting measures that can be regarded as best practice management in the pursuit of “ongoing minimisation of the activity’s environmental harm through cost-effective measures assessed against the measures currently used nationally and internationally for the activity.”

Suggestions for such principles might include:

- ‘effective’ (mitigation aspirations),
- ‘consistent’ (applies to all projects consistently),
- ‘robust’ (quality data assurances adjusted for Qld weather conditions),
- ‘representative’ (top quartile of relevant and comparable emissions performing assets in Australia), and
- ‘practicable’ (cost effective in de-risking engineered adaptations).

The SGM incentivises economic growth by allowing facility production – and consequently emissions – to rise and fall according to an application of production weighted emissions intensity baselines. By enforcing a decline rate to these baselines over time, the SGM facilitates absolute abatement outcomes, which are driven by differing marginal abatement costs of facilities, also decline to achieve the SGM’s legislated targets.

The SGM also provides for emissions-intensive trade-exposed facilities by constraining their baselines relatively less than other facilities. This provides for practicable mitigation pathways while facilitating lowest cost compliance by allowing emissions above allowable baselines to be acquitted for by ACCUs and SMCs.

The Australian Government is committed to the SGM facilitating least-cost compliance and abatement. Because facilities have differing marginal abatement costs, and some can achieve abatement outcomes deeper and/or cheaper than others, the abatement that is surplus to facility compliance requirements (emissions outcomes below grandfathered allowable baselines) can be traded within the scheme to facilitate the lowest-cost compliance. Further, the Australian Government has stated its intent (SGM [Factsheet](#), p4) to consult on establishing a legislative framework for international carbon credits (referred to as ITMOs - Internationally Transferred Mitigation Outcomes) for emissions reduction target compliance.

In contrast, the Guideline does not factor any of these SGM design elements into its guidance despite claiming it aligns. Instead, it intends to impose on Qld projects an emissions decline rate (presumably straight line) at some unquantified magnitude over time. This is expected to perversely spike the demand for offsets for compliance purposes, which will inevitably increase under such an approach, in contrast to growing policy expectations for an ever-diminishing role for offsets.

We believe high integrity offsets must continue to be allowed to play an unconstrained role for compliance purposes, especially given that the benefit bestowed to the atmosphere is comparable to not emitting GHGs in the first place (noting some emissions will never be avoidable) and there can be multiple non-CO<sub>2</sub> co-benefits including increased biodiversity, maintaining habitat for native animal and plant species, improved local air and water quality, avoiding vegetation clearance, re-establishing vegetation on previously cleared areas, and improved environmental management.

We also believe it would be inequitable to require ex-SGM facilities, that still compete with all other



facilities in the Qld economy, to bear the same level of carbon constraint (4.9 per cent annual decline rate) and face similar carbon costs as if they were still complying with SGM obligations.

SGM facilities that fall below the 100KtCO<sub>2</sub>-e threshold are no longer legally obligated to reduce their emissions but can volunteer to stay within the scheme (to generate credits).

This could simply serve to encourage capital to redirect out of Qld to other jurisdictions and overseas with less restrictive carbon management settings (resulting in ‘carbon leakage’). It may also perversely do nothing to preserve Australia’s or the global carbon budget, nor help transfer and diffuse new low and zero emissions technologies in Qld.

## Climate-related Financial Disclosures

The Commonwealth Treasury is planning to imminently table its exposure draft legislation to amend the [Corporations Act 2001](#) (Cth) and related legislation to mandate CRFD in regard to risks and opportunities. The drafting and release of the Guideline should consider the implications of this legislative requirement.

There is clearly administrative overlap in some of what is in the Guideline and what will soon be lawful at the national level, including the identification, estimation, and reporting on scope 3 emissions. Other matters of overlap could relate to project governance, strategy, risk management (climate resilience assessments), metrics, and measurement and reporting of scopes 1 and 2 emissions.

Australia’s disclosure requirements will be overseen by prudential regulators such as the Australian Prudential Regulation Authority (APRA), the Australian Securities and Investments Commission (ASIC), the Reserve Bank of Australia (RBA) and the Council of Financial Regulators. Requirements will be consistent with an Australian climate disclosure standard (under development) and informed by the international standards of the International Sustainability Standards Board (ISSB). The Australian Accounting Standards Board (AASB) is conducting [consultations](#) on the standard which closes on 1 March 2024.

The Commonwealth has indicated that it will accept existing information at the reporting date without undue cost or effort to the entity; with additional relief to be provided to reporters. Given the challenges associated with identifying, estimating and reporting on scope 3 emissions in the Guideline, we recommend delaying such considerations until Federal legislation is passed and liable entities have experience in complying with them.

## Other Australian jurisdictions GHG guidance

Qld entities are subject to a broad range of policy and regulatory compliance obligations, many of which are additional and different to other states and territories. We consider there is always a potential for greater coordination, higher complementarity and closer harmonisation of the Federation’s collective GHG policy and regulatory settings, information requirements; as well as cooperation across all three levels of government.

The climate actions of large Qld emitters continue to be driven by the carbon constraints imposed on them under the SGM, and costs determined by the adequacy of their free allocation of allowable emissions and their need to acquire and acquit for excess emissions. The SGM however provides for

compliance cost containment by establishing a price cap on ACCUs at A\$75tCO<sub>2</sub>-e. This is something that the Guideline should consider ensuring the efficiency of the SGM is preserved, and to avoid duplication and unintended outcomes.

This could be co-supported for example by exempting Qld SGM facilities from some of the requirements in the Guideline, including for example its proposed treatment of scope 3 emissions.

Finally, the Guideline’s claim (p4) that it aligns with other jurisdictions in Australia with similar guidelines or requirements for abatement plans remains unfounded. We recommend a detailed mapping exercise be undertaken to compare other jurisdiction’s relevant requirements and be included as an appendix in the Guideline to further inform and educate EA applicants on the extent and nature of what is being asked of them.

It is our understanding that not all states and territories have explicit GHG guidelines (Vic, SA), some guidelines have been developed by the department (Qld) and some by independent Environmental Protection Agency’s (NSW, WA), and some are currently in draft form (NT). There is clearly substantial scope for differences across the states and territories.

Furthermore, the status of emissions reduction targets or aspirations/ambitions differ across jurisdictions, and these can influence how the respective mandates for GHG guidance are given effect. The table below illustrates the comparative status of emissions reduction approaches adopted by jurisdictions.

	National	WA	Qld	NSW	Vic	SA	TAS	ACT	NT
Climate change legislation	✓	Bill (2023)	✗	✓	✓	✓	✓	✓	✗
Climate change strategy	✓	✓	✓	✓	✓	✓	✓	✓	✓
Legislated emissions reduction targets	✓	✗	✗	✓	✓	✓	✓	✓	✗
2030 targets	✓	✓	✓	✓	✓	✓	✓	✓	✓
2035 target	✗	✗	✓	✓	✓	✗	✗	✓	✗
Net zero emissions target	BY 2050	BY 2050	BY 2050	BY 2050	BY 2045	BY 2050	BY 2050	BY 2045	BY 2050
Renewable energy target	✓	✓	✓	✓	✓	✓	✓	✓	✓
Intergovernmental Agreement on the Environment (IGAE)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Council of Australian Governments agreement (COAG) - (lapsed)	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: Australian Energy Producers