

ESG in the Australian Gas Industry: 2022 Practice Guide



Foreword

Acknowledgement of Country

The Australian Gas Industry Trust (AGIT) would like to begin by acknowledging the Traditional Custodians of this land and the continued positive impact they have on supporting and sustaining positive progress across Australia. Building strong foundations in ESG will support Australians from all walks of life in a respectful, sustainable, and prosperous future and First Nations Peoples have an integral role to play in this future for our industry and our country.

Foreword

AGIT is pleased to present this ESG Practice Guide to the Australian Gas Industry with the intention of providing a resource delving into ESG, its implications, and how organisations should best seek to respond to it. We see ESG as a framework for expanding and structuring the environmental, social, and governance obligations of companies implied by the Corporate Social Responsibility (CSR) movement which preceded it. ESG is a framework for building a sustainable positive business impact, making it a useful and highly valuable tool for businesses and wider society.

The rise of ESG and the immense global changes it is driving have major implications for our industry, and will shape the future of how we do business. Decarbonisation is becoming a primary concern as regulators, communities, and investment bodies increase their scrutiny on hydrocarbon businesses, which presents a challenge to the future of the gas industry. At the same time, social and governance issues are becoming incredibly important, with diversity and human rights movements driving significant changes across boards, societies, and operations globally. Simultaneously, numerous governments are incorporating gas into their medium and long term energy strategies. Our gas products are also vital to the chemical sector underpinning important industrial activities such as agriculture through

the use of gas in fertiliser production. Ultimately, we as an industry need to define what role gas and our businesses will play in a carbon neutral future and how we will respond to the ESG landscape and operating context of tomorrow.

While these issues are immensely important to our collective future, our industry does not have an aligned view on the fundamental issues underpinning ESG. What comes under the heading of ESG, what are the implications of ESG, and what the industry should be doing is unclear at present, as evidenced by the breadth of differing responses across the board to the stimulus of ESG. ESG is defined, measured, and responded to differently across the industry. This fragmented response is impacting the cooperation of an industry in which cooperation is vital to success. Managing ESG across the supply chain can often complicate procurement. The ability of smaller industry players who do not have the resources to develop comprehensive standalone ESG strategies implies the need for a unified approach to this immensely important issue. Building an effective and coordinated response begins with understanding and defining the issue at hand.

AGIT is seeking to take the first step with this Practice Guide in helping to build a discussion around ESG through defining and building consensus and alignment on what ESG is, what its implications are, and how organisations can practically and effectively respond to it.

We hope this Practice Guide will provide you with a strong foundation and knowledge base for your ESG journey. We have included a detailed breakdown of what ESG is and what falls under each category, as well as a framework for categorising and responding to issues. Also included is where ESG fits into the gas value chain, future trends and the impacts of ESG. Finally, a guidance is included for how to build an effective response, providing clear messages for the industry and the resources to further your understanding.



Contents



Introduction & Context of ESG.....1



Current & Future Trends in ESG.....5



A Closer Look at ESG.....11



Measuring & Reporting ESG.....28



The Oil & Gas Supply Chain Dissected.....35



A Framework for Responding to ESG.....41



Appendix: Further Reading & References.....45

Introduction





Purpose of this Practice Guide

The Australian Gas Industry Trust (AGIT) works alongside industry partners to build a more secure and sustainable energy future for Australia.

The purpose of this Practice Guide is to provide an overview of ESG, and how it is understood and implemented across the Industry. This will ultimately help to define the parameters of ESG, through outlining its materiality, impacts, and opportunities. Further, it highlights what organisations should aim for to effectively respond and proactively align themselves with ESG.

This Practice Guide seeks to dissect ESG and distil:

- What is ESG?
- What are the dominant global and domestic ESG trends?
- Why is ESG important to the gas industry?
- How are Australian industry organisations responding to ESG?

This Practice Guide considers ESG in the context of the industry, and outlines case studies of industry performance. It also provides guidance and insights on ESG tracking and reporting, and details a high level framework to approach ESG in the context of the Australian Gas Industry.

What is ESG?

Environmental, Social, and Governance (ESG) is a framework for managing and reporting on an organisation's long term wider impact on its stakeholders and the environment in which it operates.

The components of ESG are broad, and cover every aspect of an organisation's interactions with employees, customers, communities, stakeholders, shareholders, and the environment.

Organisations that positively develop their environmental performance, social impact and governance practises are likely to perform better financially in the future. Because of this, they are becoming more attractive to investors due to their improved risk profile and ability to capitalise on emerging opportunities.^[56]

ESG is a proactive and dynamic framework, with new and evolving components which are not always easily understood. There is no one-size-fits-all approach to ESG, and no set definition, resulting in approaches varying across sectors and organisations. Even within the industry, approaches to ESG accountability, reporting and compliance are varied and standardisation efforts are still progressing.

Environmental



Social



Governance



The Context of ESG

Although the practice of ESG as a corporate framework has grown significantly in recent years, the concept of ESG is not new. ESG is rooted in the construct of sustainability and 'corporate social responsibility', which have been influential forces in the business landscape since the 1960s.

ESG was formally entrenched in global dialogue in 2016 when the United Nations established a new framework to support global sustainability efforts: [The Sustainable Development Goals \(SDGs\)](#). The SDG framework includes 17 core goals aligned under five pillars (people, planet, prosperity, peace and partnership).^[1]

The SDGs are universal and apply across borders. They mark the highest level of consensus on ESG matters, and

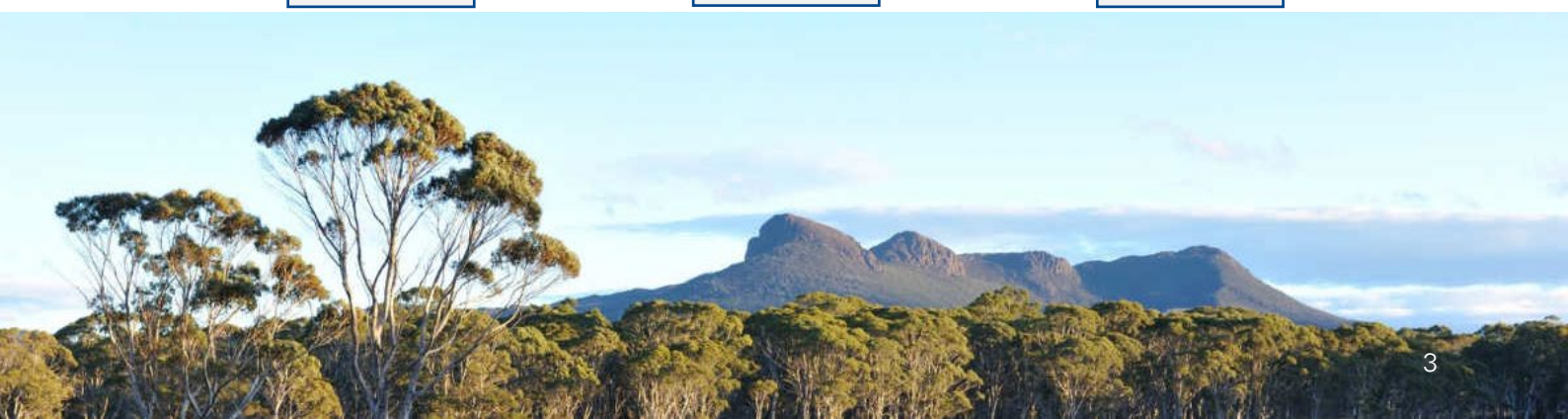
have provided a roadmap for global alignment on issues spanning poverty, economic growth, gender equality and climate action, amongst others.

The SDGs have been adopted by the private sector as a blueprint for corporate ESG leadership. In 2017, CEOs from the World Economic Forum International Business Council signed a Compact calling on companies to align strategies and operations with the SDGs.^[2] The resulting [UN Global Compact](#) aims to drive business awareness and action to support the SDGs. The UN Global Compact has an [Australian branch](#), which provides resources to mobilise Australian businesses to create a more sustainable future.

SDGs as a lens for Businesses

The SDGs are thematic goals and can provide useful guidance in recognising ESG matters which are material to your business. While the World Economic Forum has presented a categorisation of how SDGs fit into the ESG framework, the issues outlined in the SDGs are multifaceted and mostly relevant to more than one aspect of ESG. Outlined below is the relevant categorisation of ESG across the individual SDGs.^[3] Almost all aspects of ESG can be linked to each SDG with enough granularity. For example zero hunger is related to production of fertiliser which gas supports, hence the framework below provides a quick reference guide only for the most relevant alignments.

 <p>1 NO POVERTY</p> <p>S</p>	 <p>2 ZERO HUNGER</p> <p>S</p>	 <p>3 GOOD HEALTH AND WELL-BEING</p> <p>S</p>	 <p>4 QUALITY EDUCATION</p> <p>S</p>	 <p>5 GENDER EQUALITY</p> <p>S</p>	 <p>6 CLEAN WATER AND SANITATION</p> <p>E</p>	 <p>7 AFFORDABLE AND CLEAN ENERGY</p> <p>E S</p>
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p> <p>S</p>	 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> <p>S</p>	 <p>10 REDUCED INEQUALITIES</p> <p>S</p>	 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p> <p>E S G</p>	 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> <p>E G</p>	 <p>13 CLIMATE ACTION</p> <p>E</p>	 <p>14 LIFE BELOW WATER</p> <p>E</p>
 <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p> <p>S G</p>	 <p>15 LIFE ON LAND</p> <p>E</p>	 <p>17 PARTNERSHIPS FOR THE GOALS</p> <p>G</p>				



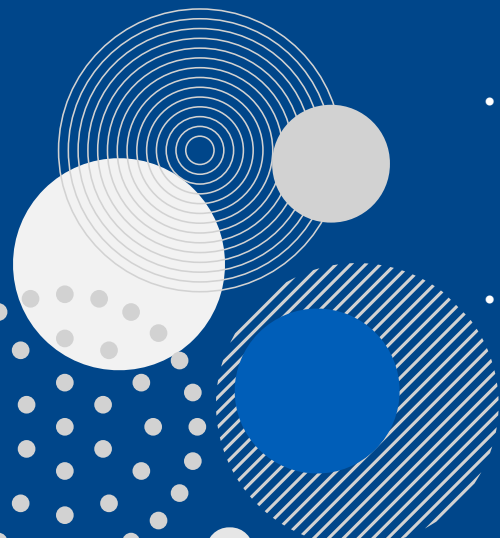
ESG Risks and Opportunities

ESG is a framework designed to consider the material topics which affect the operating environment of an organisation. By focussing on the topics of significance to an organisation and its stakeholders, organisations can drive growth and build resilience to future changes. Some of the major opportunities in ESG are outlined below.

- **Missed opportunities:** Organisations that do not engage with ESG as a framework for decision making and risk management may miss huge opportunities for growth and partnerships.
- **Reputational risk and social licence:** ESG is part of a wider public expectation of corporate citizenship and behaviour. Organisations that do not align with these public expectations may suffer reputational damage.
- **Loss of talent and skills:** Organisations that do not address the operationalisation of ESG performance indicators (such as diversity, safety, and environmental stewardship) may be less likely to attract top talent.
- **Reduced access to capital:** Lenders and investors may not provide access to capital for organisations that do not meet their ESG requirements.
- **Legal challenges and disruptions:** Increased risk of non-compliance, penalties and fines, as well as exposure to emerging geopolitical challenges if ESG is not considered in risk management.

Risks Opportunities

- **Growth and customer attraction:** A good ESG strategy will help organisations to stay ahead of competitors, with industry leaders and first movers being rewarded with improved access to capital and new markets. There is also decreased risk across all aspects of ESG, which is especially prevalent in low carbon energy.
- **Attracting capital and finance:** Organisations that show a commitment to ESG matters and report on their performance against ESG indicators will likely have improved access to capital from lenders and investors.
- **Attracting talent and creating a more supportive workplace:** Creating a diverse, inclusive and respectful workplace is beneficial to employees' mental health, and also has downstream impacts that are good for business. Research indicates a significant correlation between diversity, inclusion and improved profits.
- **Increased outreach and impact in communities:** The gas industry has a responsibility to respect communities and Indigenous people in the areas it operates. Investment in communities provides organisations with the opportunity to bring economic benefits to regional areas, reducing project risk and improving social license to operate.



Current & Future Trends in ESG



The Future Role of the Australian Gas Industry

Natural gas use today

Globally, the largest use of gas is as an energy source in the production of electricity. Gas fired generation can flex up and down as demand necessitates, and provides firming for more intermittent sources of energy. It is used as a chemical reagent in the production of fertiliser, hydrogen, and other products including plastics and polymers, and plays a vital role in providing heating and cooking solutions for homes and businesses around the world.^[49] Australia is major producer and exporter of gas and the Australian Gas Industry supports these use cases globally.

Global Natural Gas Demand by Source

IEA 2021^[9]

Energy industry own use

Other

Power generation 41%

Industry 24%

Residential & commercial 21%

10%

4%

Net zero & the new global energy economy

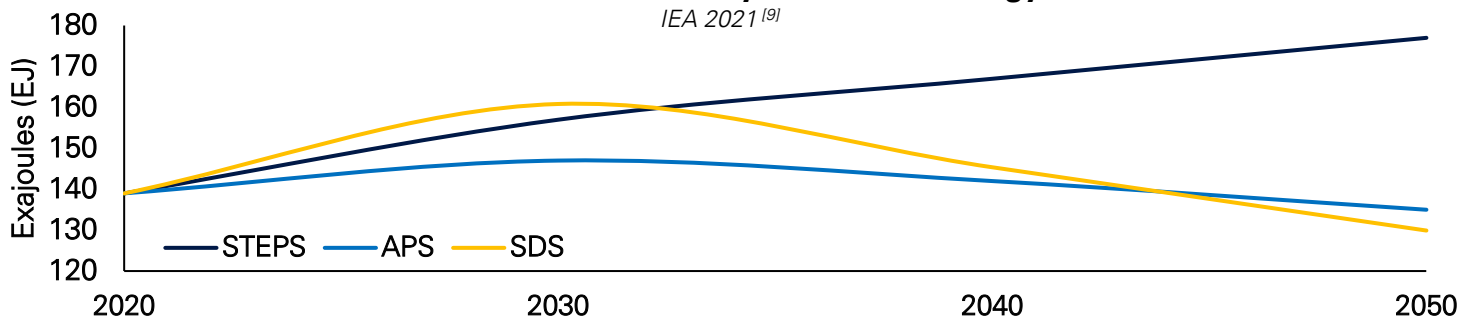
While gas is a vital part of our energy mix today, there is some debate as to its specific role in the future. The Paris Agreement sets out a global framework to limit global warming to well below 2°C and pursue efforts to limit it to 1.5°C. As a result, the world is now in pursuit of reaching net zero greenhouse gas emissions and a new global energy economy is emerging. The transition to this new economy is dynamic and complex, and scenarios are often used to assist industry to consider plausible futures and the implications of each. In their annual World Energy Outlook, the International Energy Agency (IEA) outlines three plausible scenarios for the low carbon transition and the demand for gas within each:^[9]

1. STEPS: *Stated Policies Scenario*, is an outlook based on today's policy settings.
2. APS: *Announced Pledges Scenario*, reflects announced ambitions and targets, including the most recent ones, are on the path to deliver emissions reductions required to achieve net zero emissions by 2050.
3. SDS: *Sustainable Development Scenario*, is a "well below" 2°C pathway, representing a gateway to the outcomes targeted by the Paris Agreement.

The graph below illustrates the demand for natural gas in each of these major scenarios. All scenarios indicate a significant ongoing role for natural gas past 2050. While the IEA also presented the Net Zero (NZE) scenario alongside these, this has not been included as it is considered unrealistic due to its underlying assumptions having been invalidated. The NZE does however serve as a reminder that all scenarios are based on numerous uncertain assumptions, hence robust ESG strategies should consider a range of potential outcomes even with the current importance of natural gas within the energy mix.^[55]

Forecast Natural Gas Demand by IEA Global Energy Scenario

IEA 2021^[9]



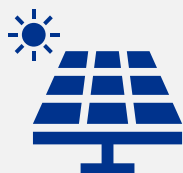
*Note: 1 EJ is approx. 29 billion cubic meters (bcm) of natural gas

Natural gas use into the future

As the IEA World Energy Outlook 2021 suggests, gas will continue to play a role in the energy mix towards 2050. It will also maintain an important role in its chemical and industrial use cases due to the inability for current alternatives to adequately scale their production to supplant gas. However, underpinning each scenario is a changing range of demand sources across regions and sectors which are influenced by the solutions commercially available at market. The industry will therefore play a key role in driving the transition and it is critical that members of the Australian Gas Industry understand the emerging trends in ESG so as to implement robust strategies to maintain a positive impact moving forwards, while remaining conscious that future gas demand relies on their playing an economic and supportive role within a net zero future.^[11]



Supporting global energy access



Firming variable renewable energy



Supporting food security (fertiliser)



Providing heat to homes and industry



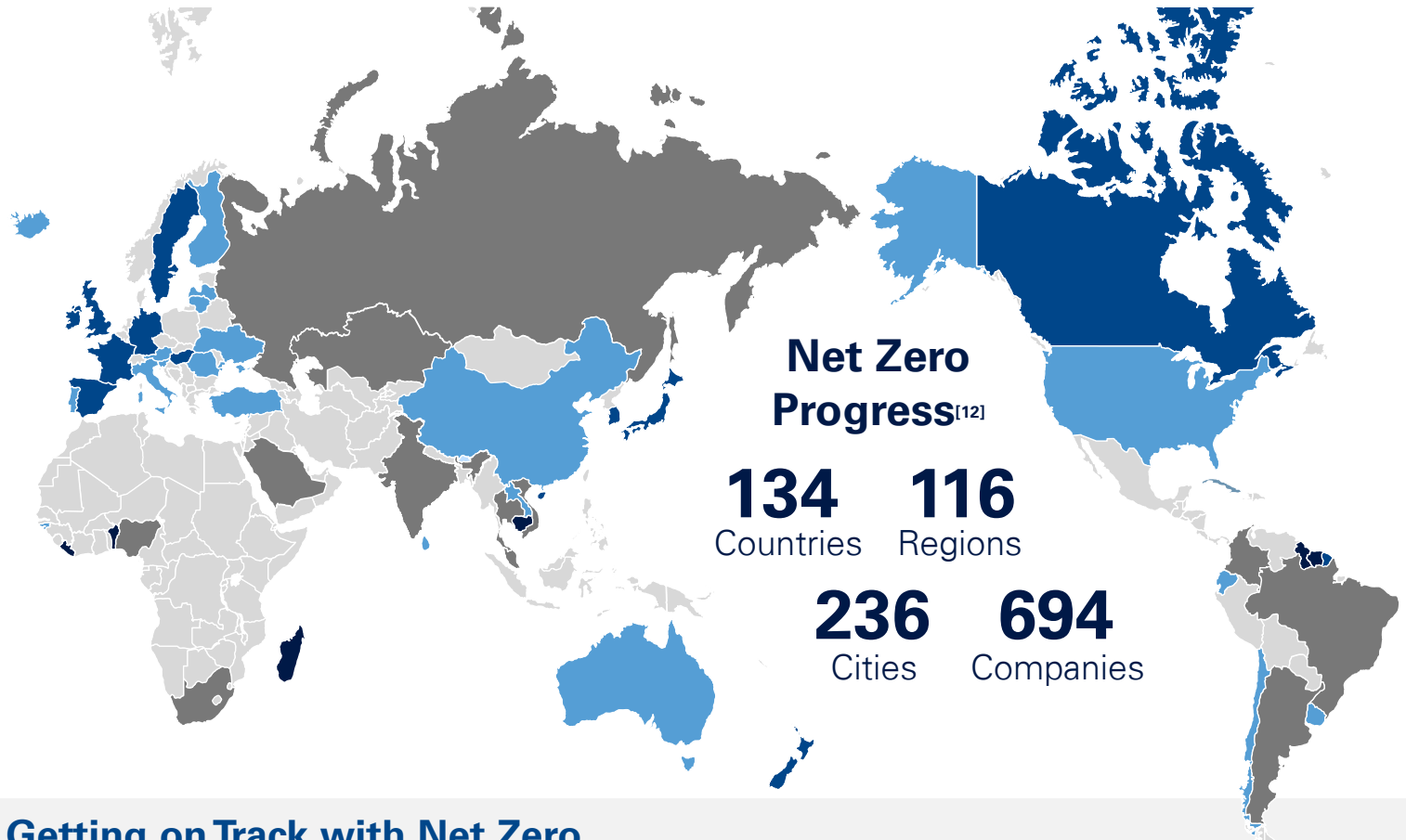
Creating chemical products for widespread use

A Net Zero Challenge to the Future Role of Gas

As the IEA World Energy Outlook scenarios indicate, existing net zero commitments and energy strategies imply a role for gas towards 2050. However, a ratcheting down on these commitments will likely impact gas demand. Gas is anticipated to have a significant role to play and it is important that gas industry organisations consider all scenarios in their planning to ensure a comprehensive ESG strategy.

Net Zero Target Legend

- Achieved
- In Law
- In Policy
- Declaration / Pledge
- In Discussion / No Target



Getting on Track with Net Zero

The 134 countries which have decarbonisation goals contribute 65% of all global CO₂ emissions. Emissions are driven largely by electricity production (25%), agriculture (24%), and industry (21%), with buildings, transport, and other energy usage contributing the rest.^[13]

The Australia Government has recently increased national climate ambition, committing to a 43% reduction in greenhouse gas (GHG) emissions by 2030 from 2005 levels.

Despite global agreement via the Paris Agreement to limit warming to 1.5-2 °C, the Intergovernmental Panel on Climate Change (IPCC) has indicated current pledges and targets are anticipated to result in a global warming trajectory of +2.4°C average global temperature rise by 2100.^[13] Actual firm behaviour and implemented policies are anticipated to result in a real outcome of +4°C of warming which is considered a catastrophic outcome, implying a need for a potential course correction.^[13]

Net Zero Pledges for Countries 'In Law'^[54]

2045

Germany

Sweden

Portugal

2050

Japan

France

United Kingdom

South Korea

Canada

Spain

Ireland

Denmark

Hungary

New Zealand

Fiji

European Union

The Challenge

The IPCC has warned in their Climate Change 2021 Report that the world is not on track to meeting the Paris climate targets based on existing energy policy and company commitments.^[13] In order to meet these targets, action would be required by global regulators to change the trajectory of global emissions. Therefore, while gas demand is anticipated to continue to at least 2050, the industry should define a robust ESG strategy to proactively manage its role in the event of an accelerated decarbonisation agenda impacting the accuracy of demand or supply models for gas.

A Broad Spectrum of ESG Responses

Currently, climate change is a major driver of ESG materiality in the gas industry. The global push towards net zero has the potential to present an existential threat to gas demand depending on the final path chosen to achieve emissions reductions. This has resulted in an overwhelming emphasis on decarbonisation in discussions of ESG and a concerted effort by the gas industry globally, to respond effectively to current and future changes brought on by net zero.^[52]

Industry players have different perspectives on the future of gas, as a variety of responses to potential outcomes have been observed from different players throughout the industry. Responding effectively to this challenge requires organisations to define their anticipated future role of gas in the energy mix. Once this has been established, a future focused strategy can be implemented.

Some organisations are fundamentally changing their businesses by divesting from gas, while others are consolidating their existing portfolio to become resilient to future challenges in finance, regulation, demand, or social licence to operate.^[8]

Largely, the response from gas operators has been to hedge existing positions, with efforts to effectively decarbonise their businesses and use the profitability of existing operations to finance new ventures with longer horizons than gas. Presented below are a series of strategic options which represent the typical strategies employed by oil and gas majors to respond to decarbonisation. These options are simply a spectrum of possible responses and are not mutually exclusive. Many organisations are hedging their positions with optionality.

Different financial risk & reward profile

Consolidation

Oil, gas and refined products remain the core business



Maintain focus on oil and gas, and drive operational decarbonisation

Shift

Optimising carbon profile of existing oil and gas positions (oil vs gas)



Move up the curve with gas and drive operational decarbonisation

Offset

Continuing to develop hydrocarbons whilst achieving a net zero position



Net zero energy supply whilst remaining in hydrocarbons

Pivot

Increasing the pivot to renewables & zero emissions technology



Increasingly moving from molecules to electrons through clean energy

Re-Imagine

Developing a new business model beyond energy and chemicals



Fundamentally changing the business & exiting fossil fuels

Decreasing environmental and regulatory risk

The Australian Gas Industry's ESG Mandate is more than Decarbonisation

There is no one size fits all when it comes to ESG. However, alignment on the specific elements of ESG and the material impact thereof is important for cohesion within the industry.

While decarbonisation is currently the a material impact of ESG on the gas industry, gas may play a role moving forward. Hence, other ESG factors are extremely important for sustained operations long term.

Depending on an organisation's chosen pathway to navigating decarbonisation and its role within the future operating context, its social and governance response will be affected.

Managing social, environmental, and governance aspects

must be a core part of operations moving forward in order to maintain long term sustainability and operability.

An organisation's risk and social profile changes depending on its response to decarbonisation and the strategy it chooses to pursue. Consolidation may not be well perceived by the public, as evidenced by the equities performance of numerous gas producers pursuing different decarbonisation strategies.^[53]

Ultimately, while the specific materiality of ESG elements is dependent largely on operating context, it is important that after a decision is made on a firm's response to decarbonisation that the other ESG considerations of the business continue to responded to.

Beyond Decarbonisation

The global drive for sustainability and decarbonisation has rapidly grown into a wider public expectation of ethical corporate citizenship and behaviour. While environmental action to respond to climate change is the primary material driver of ESG, there is increasing material impact from factors in the social and governance categories. For example, initiatives such as the EU's 'social taxonomy' program are pushing for standardisation on the measurement of social and governance impacts. Employee wellbeing, diversity and inclusion, and the importance of secondary social and governance factors are increasingly magnified by emerging action from stakeholders, investors, and regulators.

Australia is not as progressed in the broader scope of ESG regulation as Europe. The approach by domestic organisations towards ESG has been more ad-hoc, however regulation is moving towards more rigorous ESG management. For example, the *Modern Slavery Act (Cth)* requires businesses to identify and address their modern slavery risks.^[14] Ultimately, social and governance concerns are on a clear path to increased material impact on businesses as investors, communities, and regulators increase their scrutiny.



Environment

Key Considerations:

Water Consumption

Managing water intensive practices

Emissions Reduction

The transition to decarbonise is underway

Regulation

Meeting increasingly stringent environmental standards

Waste Management

The shift to a circular economy is accelerating

Biodiversity

Managing impacts on native fauna and flora

Contamination

Managing the risk of land and water contamination

A New Frontier in:



Social

Key Considerations:

Talent

Attraction and retention of talent is becoming challenging for gas

Communities

Community impact is becoming more regulated and monitored

Social Licence

Stakeholders are increasingly critical of corporate ESG performance

Finance

Finance and access to capital is becoming tied to ESG performance

Diversity

Organisations are being held to higher diversity standards

Rights

Human rights legislation is increasingly shaping aspects of ESG



Governance

Key Considerations:

Procurement

End to end assurance is a large challenge for smaller organisations

Complexity

Increased governance requirements are complicating compliance and tracking

Accountability

Executives are being measured and rewarded using ESG metrics

Legislation

Increased reporting and governance is becoming mandated

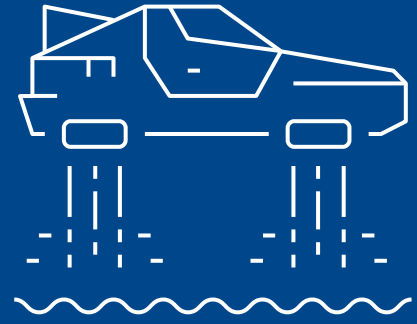
Standardisation

Industry standards bodies are driving more consistent reporting

Ethical Practices

Organisations are facing more scrutiny around ethical practices

Harnessing Future Trends



The future is changing rapidly. Technological developments are revolutionising operations and driving changes in global industry and business. These new developments present opportunities and challenges in an ever connected world. Harnessing the future trends of industry and society is key to remaining ahead in ESG. Some of the key trends identified as emerging considerations are outlined below.

Industry 4.0 & Emergent Technology

Emerging technology in Industry 4.0 such as digital twins, cloud computing, augmented reality, robotic operation, and intelligent analytics are increasingly shaping the future of the gas industry. The improved oversight and control offered by technology can improve ESG outcomes considerably. Governance can be enhanced through digital twins, however, organisations should be wary of the challenges of a changing cyber security landscape brought on by increasing reliance on digital technology.^[15] New technology is incredibly valuable and companies should be aware of new developments in the industry. They should seek to build digital adaptability into the fabric of their operations so they can easily upgrade and enhance their modus operandi. As new technological opportunities emerge, it is important to remain conscious of trends in ESG such as the social perception of automation and the ethical implementation of AI and new technologies.



Social Media

An organisation's actions are increasingly tracked and scrutinised by the general public. This has been illustrated through bots designed to display an organisation's progress in diversity and inclusion, environmental impact on their media releases, public organisation of activism on social media, and the growing involvement of online perception of an organisation's licence to operate. Social media is not just a tool for managing perceptions but can also support meaningful engagement, serving to give disempowered stakeholders a voice.



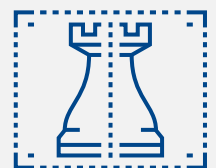
Traceability

Technology such as Blockchain is shaping how end to end assurance is completed with ESG impact becoming more and more traceable using these novel technologies. Organisations should be looking to invest in harnessing these technologies to empower their ESG action and stay ahead of emerging requirements across the supply chain. Digital traceability may soon become commonplace for financiers, investors, and customers and organisations should look to utilise new methods of achieving, demonstrating, and tracking positive impact.



Geopolitics & National Security

The geopolitical operating context of gas industry participants is becoming increasingly complex as the trade stability of globalisation is eroded. Supply chains are increasingly strained by trade tensions between major powers and historic trading partners. This is a major ESG concern for the Australian Gas Industry. It implies increased pressure to manage supply chain risk as countries seek to strategically secure their access to energy and natural resources. Companies need to address emerging geopolitical risk across their operations and partnerships in an effective manner which considers more than just economics.



A Closer Look at ESG



The 12 Pillars of ESG

ESG is a framework for managing the three major categories of corporate responsibility to ensure organisational longevity and sustainability. ESG is not just about reducing carbon emissions, but is also a mechanism for managing governance and social relations in a changing regulatory and geopolitical landscape. Below is a graphical representation of ESG across the three pillars: environmental, social, and governance. While ESG is becoming increasingly important across all industries, the gas industry is currently experiencing significant change in ESG, particularly with developments in the decarbonisation agenda.

A Framework for Comprehensive ESG Coverage



ESG is fast becoming a hugely important factor at every level of O&G organisations.

"Of the major Oil & Gas Operators surveyed, 78% were intending to incorporate ESG metrics into Executive rewards metrics."

- Bob Woods, **CNBC ESG Impact**

Environmental



The environmental aspect of ESG is currently the most prevalent and well understood. An organisation's environmental impact can differ depending on the organisation type, the phase of operation, and the nature of the environmental context. Social licence to operate is inextricably linked to environmental management.

This segment of ESG covers an organisation's management and impact on water resources, land and biodiversity, air quality, and consumption and waste management. It also covers an organisation's contribution to climate change.

Organisations are often measured solely on their environmental impact. Since the formation of the Environmental Protection Agency (**EPA**) in the United States in the 1970s, global equivalents have been established in many countries.^[16]

Clean air and water Acts govern acceptable levels of toxic pollution and outline frameworks for water and land stewardship. These are integral parts of environmental permits and approvals.

Considerations to environmental tracking and management are already prevalent in the industry. This is evidenced through Scope 1, 2 and 3 emission targets, which relate to emissions generated across different parts of the supply chain. Additionally, they are becoming more important within ESG reporting. Organisations will struggle with environmental permits and approvals if they do not meet State and Federal Government standards of environmental protection.

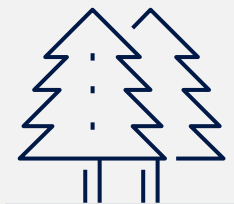
Now more than ever, organisations should be looking to ensure a positive environmental impact to prepare for a future where more stringent controls and regulation becomes normal.

The 4 Elements of Environmental Management

Consumption & Waste



Land & Biodiversity



Climate & Emissions



Water Stewardship



Organisations should consider the **opportunities** that mitigating environmental impact presents. Including:

- Clean Tech and Carbon Capture and Storage (**CCS**)
- Green Building, Infrastructure and Renewable Energy
- Harnessing Green investment trends with an improved environmental profile

This can lead to Improvements in

- Permitting and approval success rate
- Public perception
- Licences to operate



The mandate to decarbonise is clear and the Australian Gas Industry has a role to play as organisations and Governments commit to the transition to net zero. There is increasing scrutiny on how gas companies adapt their business models to align with a low carbon energy transition.

Communities and customers expect commitment and transformation from organisations. Climate change is seen as the most material issue for the Australian Gas Industry. Accordingly, net zero ambitions have increased significantly in recent years, with a greater pace and scope for targets.

Customers are increasingly embracing new technologies, and are taking control of their energy use to support action on climate change. Governments are also shifting towards disincentivising fossil fuel production and promoting renewable energy development, including heavy investment in CCS and hydrogen technology.

Key Considerations

Targets and Commitments

- Tracking and reporting on carbon & climate impact.
- Ensuring that commitments to net zero or decarbonisation are achieved effectively.
- Emissions targets and commitments covering Scope 1, 2, and 3 emissions.

Aligning Strategy and Values

- Aligning an organisation’s operational strategy and design with its climate ambitions.
- Operational shifts and new technology investments can be useful tools in harnessing the potential of net zero.

Materiality and Impacts

- Assessing the materiality of climate change impacts, and the risk and opportunities they present.
- Remaining alert to the shifting regulatory environment.
- Consistency in emissions reporting.
- Access to capital is becoming more linked to decarbonisation progress.

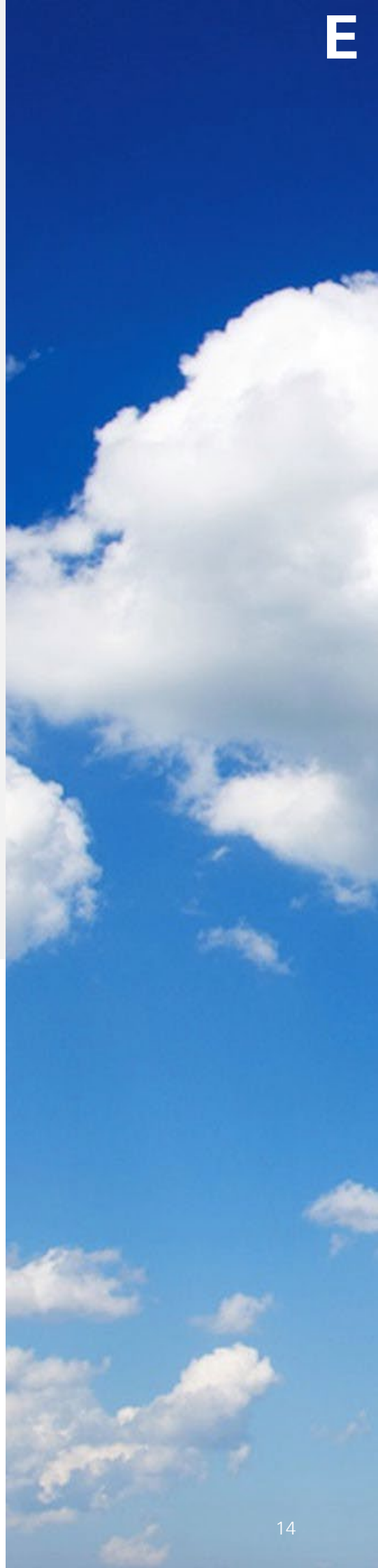
Case Study: Beach Energy – Emissions Reductions^[17]

Ambition – Beach Energy has a purpose to provide energy to communities in a way that is sustainable for the long term. They have publicly committed to an ambitious 25 by 25 target, entailing a reduction of emissions by 25%, by 2025.

Action – Within the 2021 FY Sustainability Report, Beach Energy revealed three of their key emissions reduction projects to reach their 25 by 25 target. These include:

- **Bauer Hybrid Renewable Project:** Beach will be performing further study, design and construction to prepare for this project, which will deliver energy supply to the Bauer oil field through a combination of wind, solar, battery and diesel generation.
- **Flare & Vent Management:** Implementing initiatives to reduce the need for flaring across operational sites, including flare minimisation during shutdown and start-up.
- **Leak Detection & Repair Program:** Program to detect and eradicate potential leakage points across all gas assets using world class technology and equipment.

Impact – These initiatives will support Beach Energy in achieving their target emissions goal and highlight to other players in the Australian Gas Industry the different pathways available to work towards emission reduction.





Consumption of resources and waste management are a key part of an organisation's obligations and practices. Management of tailings, production of toxic or environmentally damaging materials, sourcing materials in a sustainable fashion, and recycling are all aspects of consumption and waste.

There is a broad push to rationalise resource consumption by the Australian Gas Industry. Organisations are also becoming more accountable for their shared resource usage.

Similarly, the safe management and responsible generation of toxic by-products resulting from forms of gas extraction such as hydraulic fracturing, is a contentious issue and is increasingly being scrutinised by regulators and the public.

Ultimately, resource intensity and waste production of all types is a major environmental concern. Therefore, harnessing circular economies is a significant and important aspect of ESG.

Key Considerations

Pollution

- Output of emissions and pollutants.
- Management of residual material and by-products.
- Scope 1, 2 and 3 considerations for emissions waste management.

Circular Economy

- Production and type of waste generated, and processes to manage it.
- Waste from regular activities or projects.

Natural Capital

- Management of natural resources consumption.
- Ethical sourcing of raw materials and responsible self regulation to prevent overconsumption and depletion.

Recycling and Reuse

- Implementation of sustainability improving practices, such as recycling.
- Responsible sourcing, and supply chain consideration.

Case Study: Marathon Petroleum – Waste Recovery & Recycling^[18]

Ambition – Marathon Petroleum recognise their business activities can influence the ecosystems and communities in which they operate, and therefore their impacts must be managed and mitigated.

Action – Marathon are actively invested in managing their hazardous and non-hazardous waste. A key initiative which has been implemented to reduce waste material impacting the environment, is the recovery of Marathon's refinery tanks' residual material. Marathon partnered with CIRCON Environmental to convert oil tank waste into an alternative fuel source for the cement industry. As tanks are cleaned, the residual material is trucked to a cement kiln for processing into a waste-derived fuel, avoiding approximately 230,000 tonnes of CO₂e emissions. This also replaces coal as the historical primary fuel for cement kilns, reducing cement manufactures consumption of coal by over 60,000 tonnes.

Impact – In 2020, more than 2 million gallons of waste-derived fuel was sent to cement kilns. This reduced landfill volumes of waste by 5,650 tonnes and avoided approximately 27,000 tonnes of CO₂e emissions that year. This data was recorded in Marathon's 2020 Sustainability Report.



Water Stewardship

Organisational management of water stewardship is a key environmental factor. Spills, leaks, contamination, and water utilisation can all have major impacts on licences to operate and environmental regulation.

Managing an organisation's water usage is also a critical aspect of environmental sustainability. This is especially relevant for Australian gas organisations due to the water implications arising from operations such as hydraulic fracturing.

The Australian Gas Industry are already dealing with substantial legislative changes currently implemented. In Australia, the Murray Darling water basin was a catalyst for the Government's Water Efficiency Program.

Globally, water consumption and contamination are increasingly prevalent issues. Firm regulation is being implemented to prevent damage to increasingly scarce water sources.

Key Considerations

Contamination Management

- Ensuring the risk of water source contamination is minimised.
- One of the most vital elements of ESG.

Water Management

- Ensuring water usage is not disproportionate and detrimental to local communities is vitally important.

Aquatic Environment

- Dredging, construction, offshore drilling and other activities all impact aquatic environments.
- Managing an organisation's impacts on aquatic environments is key to reducing ecological impact.
- Important aspect in maintaining licence to operate aquatic operating environments.

Permitting and Regulations

- Water usage is highly regulated.
- Implementing good water stewardship across all operations helps ensure protection from legislative or environmental changes.

Case Study: Tourmaline Oil Corp – Fracking Water^[19]

Ambition – Tourmaline is an industry leader in water management. They are dedicated to continuous improvement in environmental performance and to elevating the performance of the industry as a whole.

Action – Tourmaline was one of the first gas producers to receive regulatory approval to use recycled water in fracking operations by constructing an engineered containment facility. They are leading the industry with technology driven changes to reduce consumption of fresh water and volume of flowback water injected into disposal wells during fracking operations. The new water infrastructure was designed to increase the volume of recycled water used in fracking. They've reached a point where 100% of Tourmaline's frac flowback water in British Columbia is recycled, and 74% of their water used across all British Columbia operations is recycled. The infrastructure is now at a size to enable Tourmaline to recycle third party water from other producers, with over 50,000 cubic meters of third party recycling in 2019.

Impact – The impact of this initiative was recorded in Tourmaline's Sustainability Report, which highlighted their ESG materiality assessments. They were also an Environmental Excellence Finalist and received public recognition for the initiative. This exemplifies good water stewardship to other companies to promote change in their water management operations.





Reduction of impact to plant and animal life, and management of rehabilitation are key aspects of an organisation's leadership in environmental impact mitigation.

All Australian gas operators can benefit from strong environmental management plans with comprehensive coverage of land use and biodiversity before beginning operations.

Over the past few decades there has been an increasing focus on how organisations consume products and manage waste, and how they manage water and land beyond regulatory compliance.

It is crucial for members of Australian Gas Industry across the entire supply chain to take meaningful and effective measures to reduce their impact on all flora and fauna.

Key Considerations

Holistic Environmental Management

- Implementation of environmental management practices.
- Emphasis on practices that support biodiversity and ecosystem services.

Tracking and Reporting Impact

- Data is required to properly report and manage impact on land and biodiversity.
- Organisations may look to partner and share relevant environmental data with the public for research purposes (e.g. water levels, wildlife monitoring).

Decommissioning Assets

- Rehabilitation and long term environmental land impact must be considered in asset decommissioning.
- Organisations have the ability to leave land in a better state than originally found.
- Decommissioning is becoming a more important consideration for permits and approvals.

Case Study: Santos – Biodiversity Research^[20]

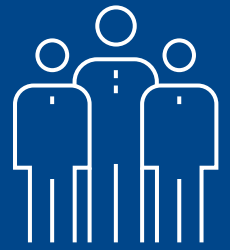
Ambition – Santos committed to achieving a net zero environmental footprint, through implementing an Environment Strategic Framework to ensure the business aligns with its sustainability goals.

Action – Due to the nature of oil and gas exploration occurring in offshore environments, there is a potential risk for environmental impact. To understand and protect these ecosystems, Santos partnered with the Commonwealth Government's Australian Institute of Marine Science (AIMS), committing to funding A\$14 million to undertake a 3 year North West Shoals to Shore Research Program. This industry-leading collaboration presents the opportunity to undertake a large scale series of scientific studies. The research includes seabed habitats, threatened species, biodiversity, and isolated coral reef atolls of the North West Shelf.

Impact – In 2020, a significant milestone was achieved with the last of the scientific studies within the Program being completed. This extensive research contributes to informing the continual sustainable development of Australia's North West marine estate for all stakeholders within the area.



Social



Social ESG considers the way in which business operations interact with and impact the community around them. Good social management is vital to any organisation wishing to establish or maintain their operations for an extended period of time. Organisations are increasingly being held accountable for their impact to communities, stakeholders and the general public.

Social aspects of ESG include a business's support and investment in the betterment of the communities in which it operates. This is done through infrastructure or provision of services, its relationships with particular groups, and interactions with key stakeholders. Whether it operates in a way that is ethical and transparent is also critical. Other considerations include the extent to which the business prioritises local recruitment and invests in local businesses.

Approaching these areas with respect and willingness to work with the community is essential to achieve social license to operate.

Businesses that are proactive in integrating social ESG put themselves in a stronger position regarding compliance. As social management expectations evolve and increase in public importance, they are also becoming legislated.

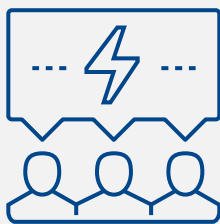
Businesses that can demonstrate existing targets and quotas for ESG improvement will be more prepared to meet new regulations.

The gas industry should prioritise the 'S' in ESG in order to ensure a positive impact on the communities in which they operate.

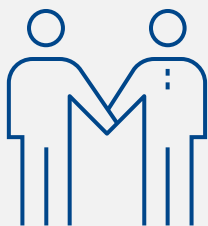
Organisations should take an ethical and sustainable approach in their work, and invest in their people and the environment.

The 4 Elements of Strong Social Management

Community Alliance



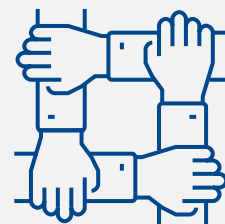
Stakeholder Collaboration



Responsible Production



People & Diversity



Consider the **opportunities** of proactive social engagement:

- Attraction and retention of talent
- Social licence to operate and reduced friction for permits and approvals
- Perception, public relations, and brand uplift

- Preferred partnership with socially conscious organisations
- Reduced regulatory scrutiny
- Positive social impact drives improved community support



Community alliance is vital to maintaining social licence to operate as collaboration and cooperation with communities can often define the relationship. A lack of meaningful consultation and collaboration can lead to friction between the business and its community when citizens experience preventable negative impacts from business operations. Clashes with the community can also lead to operational disruption and legal challenges.

In recent years, companies globally have adapted their operations to include training for local community, hiring local staff, charitable contribution, building social infrastructure and COVID-19 support for local communities.

Involvement in local, regional and Indigenous communities contributes to positive engagements between multinational companies and individual people. In turn, this facilitates learning and provides an expanded perspective for all stakeholders on good practice and emerging issues.

Key Considerations

Sustaining Communities

- Gas companies are often located near to smaller, regional towns.
- They have an important role to play in building economic growth, sustaining local communities, and planning for life beyond decommissioning.

Essential Services Support

- Regional communities often have limited assets, especially in health care.
- Resourcing support from large gas companies for small health facilities reduces stress placed on their local operations.

Access to Funding

- Investment in regional communities and social infrastructure can have lasting positive benefits and helps with accessing specific grants and regional subsidies.

Supporting Positive Change

- Organisations increasingly need to consider their contribution to communities through sponsorships and support for volunteering and charitable causes.



Case Study: BPH Energy – Community Protesting^[21]

Ambition – BPH Energy attempted to extend their Petroleum Exploration Permit 11 (PEP-11) for exploration operations within the offshore Sydney Basin 4.5km off the coastline.

Action – Overwhelming negative opinion of this renewal was voiced in Byron Bay by local communities, politicians, and notable musicians to stop the permit. Environmental protests in the form of paddle outs, petitions and calls of action to all levels of Government resulted in cancelling of the permit.

Impact – Ultimately, the drilling permit was not approved, illustrating the importance of a strong community alliance.

Case Study: Woodside – Indigenous Community Partnerships^[22]

Ambition – Woodside’s interactions with communities where they are actively operating are guided by their Sustainability Communities Policy and Indigenous Communities Policy. As a large operator, Woodside seeks to better understand the expectations of the communities they work in.

Action – Woodside have worked and collaborated with Indigenous partners for over three decades on the Burrup Peninsula, also known as Murujuga. A key focus of Indigenous communities is heritage management input from Traditional Custodians of the land. This allows Woodside to implement comprehensive cultural heritage plans to monitor and manage all impacts in these areas.

Impact – Peer-reviewed research has not identified any impact to the region’s rock art or other significant cultural heritage sites, from any Woodside operations.



Stakeholder Collaboration

Stakeholder collaboration is a critical component by which companies organise, foster, and improve their relationships with stakeholders across all levels of the gas supply chain.

Investing in and maintaining positive relationships with Governments, competitors, communities, traditional land owners, and employees requires trust, respect and understanding. This involves operating with transparency and open communication with stakeholders, to ensure mutually understood processes and clear objectives.

Open communication with stakeholders in the gas industry serves to deepen the understanding of what is important to individual parties, in addition to forming a key pillar of risk management. It also enables businesses to foster opportunities to collaborate on new solutions, working practices, investments and sustainable initiatives.

Key Considerations

Community Relations

- Engaging with communities and open communication between all stakeholders is vital to ensuring companies find a mutually beneficial collaboration with stakeholders.

Security and Privacy

- Managing how customer, community, employee and security information is used is a growing concern which is increasingly regulated.

Land Holder Rights

- Significant land use is required for gas operations. It is important for Indigenous and Aboriginal Traditional land owners and local land owners to be involved in the land access negotiations.

Stakeholder Alignment

- It is the responsibility of gas companies to ensure all their direct, indirect and supply chain stakeholders conduct themselves in an ESG compliant manner.

Case Study: INPEX – Aboriginal & Torres Strait Islander Relationships^[23]

Ambition – Respecting and acknowledging diverse cultures forms the basis of INPEX’s engagement with all internal and external stakeholders. INPEX is committed to building awareness and strengthening knowledge of Aboriginal and Torres Strait Islander cultures and traditions to create sustainable and mutually beneficial relationships.

Action – INPEX has significantly developed its Reconciliation Action Plan (RAP) since its establishment in 2013. Guided by key themes and deliverables of relationships, education, respect, and communities, INPEX has increased meaningful engagement and collaboration with Aboriginal and Torres Strait Islander Peoples. In 2019, a A\$24 million benefits packages was agreed to support a sustainable, long term relationship with the Larrakia Community in the Northern Territory over the next 40 years.

Impact – Through this RAP initiative, INPEX have laid the foundations for supporting sustainable, multi-generational economic participation opportunities for Aboriginal and Torres Strait Islander peoples and businesses. INPEX will continue to monitor and review all RAP involvements to further strengthen cultural awareness within the workforce.





Responsible Production

Responsible production refers to an organisation's obligations to manage the impact of their products on internal and external communities and consumers. This includes safety and quality, management of data, security of people, chemical safety, responsible investment, and usage.

This is increasingly relevant to the gas industry as scrutiny is placed on Scope 2 and 3 emissions, and the downstream impacts of products, services, and offerings. The social impact of a company's products and modus operandi is vital to maintaining strong social credentials. Being responsible for vital services, impactful end uses, and managing business partnership risk is important.

Financiers and shareholders often look to invest in companies that produce products which are designed and aligned with ethical principles in mind. Gas operators need to consider the social implications of their final products, who they are selling it to, and what they are being used for.

Key Considerations

Ethical Partnerships

- Working with, buying from, and selling to ethical partners is becoming a large component of ESG. Sourcing or providing products to or from unethical regimes is a significant risk and considered ethically unsound.

Ethically Conscious Sourcing

- Within the gas industry, responsible and ethical sourcing of materials and resources is important to ensure positive impact.

Supply Chain Integrity

- Providing a vital service such as heating, electricity, or transport presents the gas industry with concerns regarding social obligation and profit motive such as domestic vs international prices.

End Use Case

- The end use of products is becoming more prominent in regulation as Scope 3 emissions and other impacts are increasingly investigated.

Case Study: Enbridge – Supply Chain Management^[24]

Ambition – Enbridge supports the need for a strong, diverse supplier community, as it is essential to the resiliency and agility of Enbridge's supply chain operations and diversifying risk.

Action – Enbridge aims to work with suppliers who strive for sustainability, upholding human rights, labour, health and safety, and ethical environmental business practices. One of their ESG goals is to increase procurement from businesses that are at least 51% owned, managed and controlled by a diverse person or group, and certified by a nationally or regionally recognised third party. In 2020, Enbridge directly spent US\$335 million with 124 certified diverse suppliers. To support reporting across supplier diversity, they also implemented new reporting processes and tracking tools.

Impact – Valuing the importance of an ethical and diverse supply chain has resulted in Enbridge increasing their ESG focused information to standardise processes surrounding their supply chain stakeholders. This resulted in more regulation for ensuring their supply chain operates in an ethically conscious manner.





People & Diversity

People and diversity relates to an organisation’s hiring processes and investment in making the workplace accessible to all employees. This relates to attraction, development, and retention of diverse talent in a changing social context as well as an organisation’s approach to health and safety and management of their labour and workforce.

People and diversity is an opportunity to harness the value of being a force for positive change, a good employer, a good corporate citizen, and a positive ethical agent of change in communities. It is also important they ensure their employees demonstrate these positive values.

People and diversity is increasingly scrutinised as business partners seek to distance themselves from organisations with bad health and safety track records, or a lack of gender diversity on boards and in employee operations. Recently, corporate and executive remuneration has started to become more linked to metrics regarding gender diversity, inclusion, and achieving positive outcomes in this space.

Key Considerations

Diversity

- Using an organisation’s capabilities and employment capacity to build positive change socio-economically and in diversity.

Health and Safety

- An organisation’s responsibility to prioritise the health and safety of its workers, local communities, and others is a major ESG metric.
- Mental health support and measures to eliminate harassment in the workplace are principal to promote and sustain employee wellbeing.

Labour and Workforce

- Sourcing and supporting labour through ethical practices is a key concern in ESG. Supporting Australian communities rather than outsourcing to cheaper jurisdictions is an example of good ESG practices.

Talent Retention/Acquisition

- Attracting and retaining talent is a large concern for the gas industry as public perception becomes less favourable. Graduate programs in the industry are declining in popularity, and existing talent is leaving the industry.



Case Study: Blackrock – Gender Diversity^[25]

Ambition – Blackrock is a vocal advocate for building, developing and retaining a diverse pipeline of talent and fostering a connected culture within a welcoming, inclusive and equitable environment. They are committed to diversity, equity and inclusion (DEI) across every level of the firm, within every region Blackrock operates.

Action – Blackrock have several concrete commitments to increase diversity across the company. They plan to increase representation of senior women to 32.5% globally by 2024 from 30%, increase representation of both U.S. Black and Latinx senior leaders to 6% from 3%, and double representation of U.S. Black and Latinx representation at all levels by 30% in 2024 from 5.6% and 6% respectively.

Impact – The diversity of Blackrock’s employee composition fosters a positive future for continual improvement of gender and racial equality in the oil and gas industry.

Case Study: Arrow Energy – Safety^[26]

Ambition – Safety is a number 1 priority at Arrow Energy, as strong safety is essential for a strong business. They also have a target net zero commitment; no harm to people and the environment.

Action – Arrow Energy’s safety performance in 2020 was a QLD coal seam gas industry and company record, underpinned by a year without incident compared to industry average of 3.3 incidents. A key safety initiative was the development of the Safe Drive App to reduce road-related fatalities. It provides navigation assistance, voice alerts for upcoming road hazards, speed limit displays, land access conditions and weed hygiene conditions.

Impact – Over a 6-month trial period, there were 0 over-speed reports from the in-vehicle monitoring system (IVMS) or life saving rule breaches.

Governance



Governance is the foundation of strong ESG. The right governance structure ensures transparency, compliance, and reliability in reporting and disclosures.

The definition of governance is continually evolving, as organisations are increasingly expected to define and embed their purpose at the centre of their business. The principles of agency, accountability, and stewardship are vital for good governance. Ultimately, the governance element of ESG relate to how an organisation tracks, reports, manages, and enforces its behaviour and values. Governance is increasingly a source of scrutiny as global corruption indexes slowly climb and more ESG mandates are implemented. This drives further obligations requiring tracking, management, and action on the part of organisations.

In the gas sector, governance is largely relevant to the management of environmental and social obligations and the proper implementation of accountability frameworks and risk management methodologies. Investors and communities are increasingly hostile towards organisations with less rigorous governance controls. Therefore, ensuring strong governance practices is key to maintaining ESG leadership moving forwards.

Organisations are increasingly held accountable for their actions and criticised for governance failures such as improper management of indigenous heritage. There is a growing mandate to ensure strong and robust governance across the business. Procurement is becoming influenced by due diligence and governance requirements, and navigating this complex space can be a challenge for smaller players. Overall, governance is an organisation's greatest asset in becoming an agent of change.

The 4 Elements of Strong Governance

Risk Management



Reporting & Standards



Ethical Practices



Accountability



Consider the **opportunities** in which good governance can present to your organisation:

- Increased control of risk and reduced exposure
- Improved ability to act on changing regulatory context
- Improved ability to grasp opportunities

- Better management of people and improved ability to create change
- Heightened ability to achieve strategic ambition
- Enhanced compliance and perception as a safe investment partner



Reporting & Standards

The reporting of ESG metrics involves the disclosure of company performance in relation to material ESG risks and opportunities. These reporting metrics are both quantitative and qualitative to capture the full extent of a company's ESG initiatives, implementation, and progress.

Publicly reporting on these factors provides important sources of holistic and transparent information to assist investors and stakeholders in their decision making. It highlights and differentiates companies' commitment to fair, responsible and sustainable operation in the gas industry.

Standards and legislation provide a framework for ESG stakeholders to follow. However, the non-mandatory nature of many of these results in inconsistent reporting across the gas industry. Voluntary pieces of information are often omitted or unknown to be included for recognition, making it challenging to measure progress.

Significant development surrounding ESG reporting is still required before an accurate and standardised methodology can be established on the global scale.

Key Considerations

Alignment of Metrics

- ESG reporting is currently undertaken by several rating companies and institutions across the world. The guidelines and ESG factor weightings provide gas companies with an individual ESG rating score.
- However, these individual ratings have limited comparability across the industry due to the varying individual factors used for each rating.

Standardisation

- Reporting standards and compliance are becoming more complex and important as the ESG landscape matures. Ensuring accuracy and transparency is vital.

Harnessing Opportunities

- One of the driving forces behind ESG reporting materiality is to provide company transparency, clarity and information to current and future investors and stakeholders.
- The better the ESG rating, the more desirable a company is for financial investment.

Case Study: MSCI – ESG Reporting^[27]

Ambition – MSCI is an ESG reporting service offering companies the opportunity to an easier, more comprehensive and more frequent method of calculating their ESG scores.

Action – MSCI offers a library of standard, best practice reporting templates designed by MSCI ESG experts to solve three common use cases including climate change and TCFD reporting, ESG integration reporting, and EU regulatory reporting. Due to the growing demand amongst investors for greater transparency, improved reporting capabilities are required. The metrics are designed to facilitate detailed reporting on the ESG characteristics across industry portfolios to meet the needs of companies seeking to better align themselves with regulatory requirements.

Impact – The impact of increased ESG reporting means companies who are not transparent in their ESG targets and commitments will be less desirable to investors. Therefore, whilst standardisation across rating companies is not wholly aligned, many companies in the Australian Gas Industry publish their ESG goals and achievements to support a transparent relationship with their stakeholders and industry sustainability requirements across all ESG pillars.





Ethical Practices

Inclusive behaviour, proactive health and safety considerations, transparent business practices, and dedication to human rights all come under the umbrella of solid ethical practices.

These factors are within the long term interests of companies as a means to ensure they are credible, trustworthy, and conduct operations as best practice for all stakeholders.

Companies are increasingly held accountable for both their achievements and downfalls. It is important for companies to rely on lessons learnt and strive for future improvements. The implementation of governance frameworks provides a baseline to abide by for employees and external stakeholders.

Constant vigilance and progressive steps towards a safe, ethical, inclusive, diverse, and proactive workplace will ultimately lead to more effective business practices.

Key Considerations

Human Rights

- Human rights are the standards aimed at ensuring security, dignity, equality, and fair treatment for all workers in the gas industry supply chain.

Health and Safety

- Due to working in challenging and often hazardous environments in the gas industry, health and safety is one of the most important factors for protecting and caring for employee and external stakeholder livelihoods.

Business Ethics

- Business ethics involves accurate public reporting, admittance of errors followed by lessons learned, and transparency of finances and employee operations.

Best Practice

- This aligns to companies investing in their business to create revenue through good business operation, and not through cutting costs to increase profits, at the expense of ethical business practices.

Case Study: Shell – Ethical Practices^[28]

Ambition – Human rights are fundamental to Shell’s core values of honesty, integrity, and respect for people. They are critical to being trusted, valued, and supported by society. Shell focuses on four areas where human rights are essential to work, and where they see the highest risk for a potential impact on human rights: communities, security, labour rights, and supply chains.

Action – Based on the Human Rights Policy under the UN Guiding principles on Business and Human Rights, Shell launched a Worker Welfare manual to help better identify and manage worker welfare risks faced in high-risk countries. They worked closely with Building Responsibly, a group of leading engineering and construction companies to promote worker welfare principles, standards, and guidance across the Shell business and with contractors. Additionally, the Voluntary Principles on Security and Human Rights (VPSHR) were implemented across Shell where there were identified risks of infraction. The VPSHR has been implemented for more than 20 years in Nigeria to help identify and address the security related human rights risks.

Communication – Yearly reporting on VPSHR and assurance reviews of the implementation are conducted and published in Shell’s annual report. Training and awareness briefings are carried out with all security forces relied upon in the implementation countries to ensure human rights risks are mitigated.





Accountability

Accountability refers to an organisation's ability to develop strong frameworks for holding its people and itself accountable for ESG and ESG related concerns. This involves tracking and measuring ESG to targets and implementing tangible KPIs, organisational methodologies, and governance practices. This ensures ESG values are embedded and thoroughly adhered to at every level of the company.

Accountability is built on transparency. Hence, an organisation's ability to dissect internal lines of sight and develop comprehensive communication around ESG and values is a vital element of this category of governance. Good organisational design, clear roles, responsibilities, accountabilities, communication, and information flows are integral parts of this component.

Increasingly, ESG-centric leadership measurement is being employed in 75% of major oil and gas companies. This ties components of executive remuneration to ESG outcomes. Managing ESG data, information, and education is also relevant and important. However, these ESG issues may be novel and outside the experience of existing board members, senior management and company risk professionals.

Key Considerations

Rewards, Incentives, and Outcomes

- ESG metrics driving reward outcomes is an increasingly prevalent trend, especially among executives. Achieving real ESG outcomes relies on effective reward and consequence for key agents of change.

Transparency and Communication

- Lines of sight, tracking, reporting and metrics application is a vital component of accountability. Without oversight of progress there can be no accountability for outcomes. Organisations need to improve transparency internally and externally.

Organisational Design

- A well conceived organisational design with clearly defined ESG roles is vital.

Education and Uplift

- Managing an organisation's performance in ESG is closely related to helping employees of a company understand ESG and its components. Education is a key component of compliance.

Case Study: Oil Search – Transparency and Communication^[29]

Ambition – Transparency has always been a central component to all Oil Search operations. They operate in a socially responsible manner with strong values and high standards of guiding effective and transparent working ways.

Action – Oil Search became a signatory to the United National Global Compact (UNGC) in 2011. They published their first Sustainability Data Book and Transparency Report in 2011 (annual activity), and are a proactive Extractive Industries Transparency Initiative (EITI) member in Papua New Guinea since 2013. They are also working with other Voluntary Principles Initiative (VPI) participants to provide a strong platform for multi-stakeholder dialogue and improve shared learning on security and human rights in extractive industries.

Communication – Oil Search's key sustainability performance and risks are reported annually in their Sustainability Report, which promotes benefits of participating in the VPI.





Risk Management

Risk management is central to ESG and is a major driver behind ESG being embedded within organisations. As new risks emerge, shareholders, stakeholders, financiers and consumers all have an interest in how these risks are managed.

It is critical for organisations to have the requisite capacity and capability to adequately identify, analyse and treat risks. Companies should also consider the strategic and operational aspects of risk management across all levels of the business.

This involves improving management of climate related-risks (physical/transition) and other relevant ESG issues. It also involves reporting progress with industry-agreed performance metrics / benchmarks including AASB/ materiality, APRA, TCFD, Insurability / access to finance / legal liability.

Risk management is not just about managing risks but also seizing opportunities. There are also substantial benefits for swift adoption of strong ESG practices, which can maintain / build social licences, and secure additional capital.

Key Considerations

Geopolitical Exposure

- The uncertain global geopolitical context evidenced by increased defence spending and trade tensions are mandates for organisations to consider their exposure to geopolitical risk and manage it accordingly.

Procurement and Partners

- This involves managing due diligence in procurement so it does not inhibit the flow of materials or overcomplicate the supply chain, while still maintaining ethical partnerships.

Long Term Strategy

- Organisations are increasingly expected to develop and communicate strategies incorporating ESG values into end goals and scenario planning.
- Corporations are being pressured by shareholders to deploy long term strategies to harness ESG trends.

Specific Governance and Controls

- Managing exposure to risk ultimately comes down to robust governance procedures around identified risks and controls within the business (e.g. security) and enabling effective proactive responses.

Case Study: Viva Energy Group – Risk Management^[30]

Ambition – Viva are committed to observing the highest standards of corporate practice. Their values include integrity, responsibility, curiosity, commitment and respect. These reflect what Viva Energy stands for and underpin business principles and behaviours.

Action – In FY2020, Viva adopted a Human Rights Policy based on the UN Guiding Principles on Business and Human Rights. Together with the Business Principles and Code of Conduct, the policy guided Viva Energy’s commitment to conduct business in a way that contributes to sustainable development. This is attained by respecting the human rights of all people, including their employees, the communities in which they operate, and customers and suppliers in Viva’s supply chains.

Communication – Viva issued an inaugural statement in accordance with the Australian Modern Slavery Act 2018, providing awareness training and publishing the information in their Annual Report.



Measuring & Reporting ESG



ESG Reporting & Standardisation



ESG reporting provides organisations with an opportunity to demonstrate their commitment to society and the environment by reporting on their corporate performance. Thorough, accurate, and transparent ESG reporting provides investors with information and ensures companies are better prepared to manage risks and seize opportunities.

Disclosure requirements on ESG issues has grown significantly in recent years. Investors and stakeholders are looking for consistent reporting on ESG progress.

Standards and legislation provide some guidance on elements of ESG reporting, however voluntary ESG reporting is inconsistent across the Australian Gas Industry. Outside of mandatory legislative reporting requirements, it can be difficult for businesses to

decide which ESG standard to adopt.

The existence of multiple ESG reporting frameworks has resulted in varying approaches to ESG reporting across the industry.

To date, most gas industry ESG reporting has been focused on the environmental component, with less focus on reporting social and governance progress.

Whether companies report on their ESG impact or not, external agencies may independently undertake ESG ratings based on publicly available information, regardless of company participation.

Overall it is beneficial for companies to proactively and voluntarily report on their ESG performance.

Drivers of ESG Reporting



Changing stakeholder expectations and increased engagement on ESG issues.



Regulatory developments and shifts to more comprehensive ESG disclosures.



Access to capital increasingly requires corporate ESG credentials and regular reporting.





Standardisation Initiatives

The expansion of ESG reporting has led to a push in global demand for ESG metrics. Standardisation of regulatory guidelines, metrics, standards, and indicators will ensure high quality and accurate reporting within any industry. Two key initiatives are outlined below.

ISSB

International Sustainability Standards Board (ISSB)

In November 2021, the International Financial Reporting Standards Foundation (IFRS) announced it was creating a new 'standards setting' board to focus on ESG matters.

The ISSB aims to provide a comprehensive global baseline of ESG related disclosure standards to provide investors and market participants with information about company sustainability-related risks and opportunities.^[31] The ISSB is based on existing frameworks and standards, including the [Taskforce for Climate Related Financial Disclosures \(TCFD\)](#) and the [Sustainability Accounting Standards Board \(SASB\)](#).

GRI

Global Reporting Initiative (GRI)

GRI is an independent international organisation that aims to provide a common language for businesses to take responsibility for their social, environmental and economic impact.^[32]

GRI offers a comprehensive set of ESG reporting standards, alongside services, tools and training for all stages of the reporting process. Launched in October 2016, the GRI Standards are the first global standards for sustainability reporting and are a free public good. The [GRI Standards](#) are reviewed every three years by the Global Sustainability Standards Board (GSSB).





Geographies across the globe are reporting to different ESG metrics and the legislative standards between regions are inconsistent. This creates a challenge to promote a coordinated and effective ESG response across the sector.

New Initiatives for Global Standardisation



Non-Mandatory Global Standards & Regulations



Mandatory Regional Standards & Regulations*

*Non-exhaustive list of regional standards and regulations.

UK & Europe



- Sustainable Finance Disclosure Regulation (SDFR)
- Corporate Sustainability Reporting Directive (CSRD)
- EU Green Bond Standard (EU GBS)
- UK Corporate Governance Code 2018
- EU Social Taxonomy

EU & UK have limited ESG specific regulations, but a comprehensive range of individual policies.

North America



- US Securities & Exchange Commission adopted Climate and ESG Task Force in the Division of Enforcement
- Employee Retirement Income Security Act (ERISA) fiduciaries to consider ESG factors

In North America, there is no mandatory federal ESG disclosure. However, public companies must disclose information material to investors, including ESG risks.

South America



- Mexican Stock Exchange (BMV) founded Green Finance Advisory Council
- 2020 Inaugural Sustainable Bond Framework in Chile
- Green Growth Policy (CONPES 3934) in Colombia

South America has limited ESG policies. However, there is now an increased focus on ESG regulatory change.

Oceania



- Australia Environment Protection and Biodiversity Conservation Act 1999 (Cth)
- Australia National Greenhouse and Energy Reporting Act 2007
- Native Title Act 1993 (Cth)
- Australia Fair Work Act 2009

Australia has no overarching source of ESG regulation, but rather a patchwork of regimes for different ESG factors.

Asia



- Asset Management Association of China's (AMAC) Green Investment Guidelines
- Hong Kong Monetary Authority's (HKMA) Green and Sustainable Finance Cross-Agency Steering Group

Each country specifies different ESG reporting regulations and policies. There is limited overlap across jurisdictions.

Africa



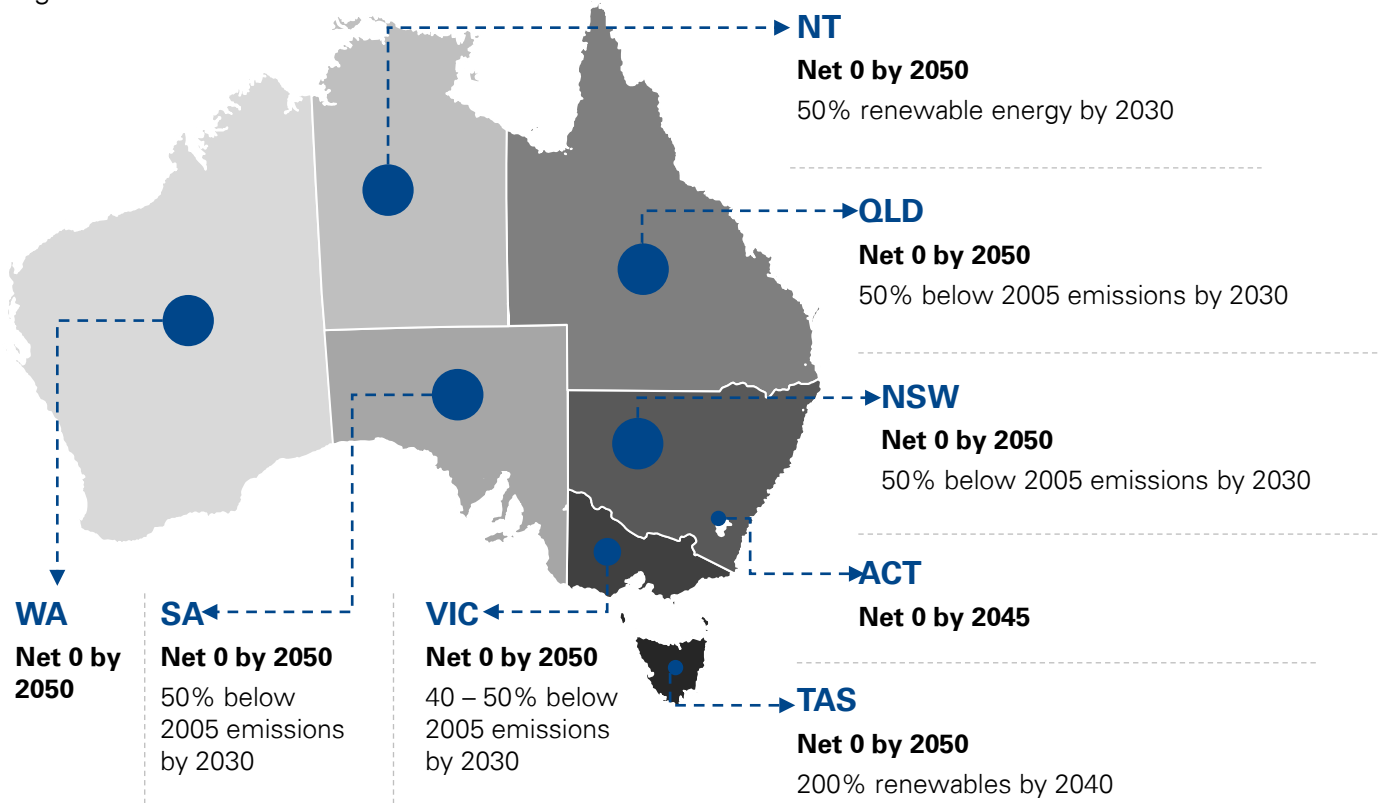
- Code for Responsible Investing in South Africa (CRISA)
- Central Bank of Nigeria's Sustainability Banking Principles
- South Africa's Climate Bill 2018

There is no explicit duty for ESG reporting. However, Africa is progressing towards implementing standards.

The Australian Regulatory Context



Australia has adopted legislation and standards across all States and Territories. These policies form a mosaic of ESG regulation, including net zero targets. Australia continues to improve upon and adopt policies that support human rights, Indigenous reconciliation, workplace health and safety practices, business transparency, and other social and governance advancements to develop holistic ESG regulation.



E: QLD and WA are the only state governments within Australia defining **ESG focus areas** in Government reports.

- QLD - Sustainability Report 2021^[33]
- WA - Supporting Continuous Improvement in ESG Outcomes for Western Australia 2021^[34]

E: Regulated Carbon Offsets: **Australian Carbon Credits Units (ACCUs)** are a regulated financial product under the Carbon Credits Act 2011, administered by the Clean Energy Regulator.^[37]

Non-regulated Carbon Offsets: Permitted under the **Climate Active Carbon Neutral Standard**.

E: NSW, SA, VIC, TAS, the NT, and the ACT only report against Climate Change and Environmental sustainability.

S: All states have an **Organisational Ombudsman** to assist the individual as an independent watchdog.

S: The **Australian Competition and Consumer (ACCC)** stands as a competition regulator, promoting fair trade and offering advice to consumers.^[35]

S: Safe Work Australia developed the **Work Health & Safety (WHS) Act 2011** to secure the safety of workers.^[48]

G: Federal **Modern Slavery Act 2018 (Cth)** requires companies with an annual consolidated revenue >A\$100 million to report on modern slavery risks in their operations and supply chain.^[14]

G: **Australian Competition and Consumer Act 2010 (Cth)** sets the standards for relationships between industry participants or their customers.^[36]

G: QLD, VIC and the ACT are the only states and territory with a **Human Rights Act** passed through Parliament.^[38]

E: Numerous Federal regulations apply across all Australian States to ensure the responsible management of land, water and air resources to support a sustainable country.

National Water Initiative – Overarching blueprint for water reform to increase efficiency of Australia’s water use, leading to greater certainty for investment and productivity in communities.^[39]

National Clean Air Agreement – Framework to help Governments identify and prioritise actions to address air quality issues.^[40]

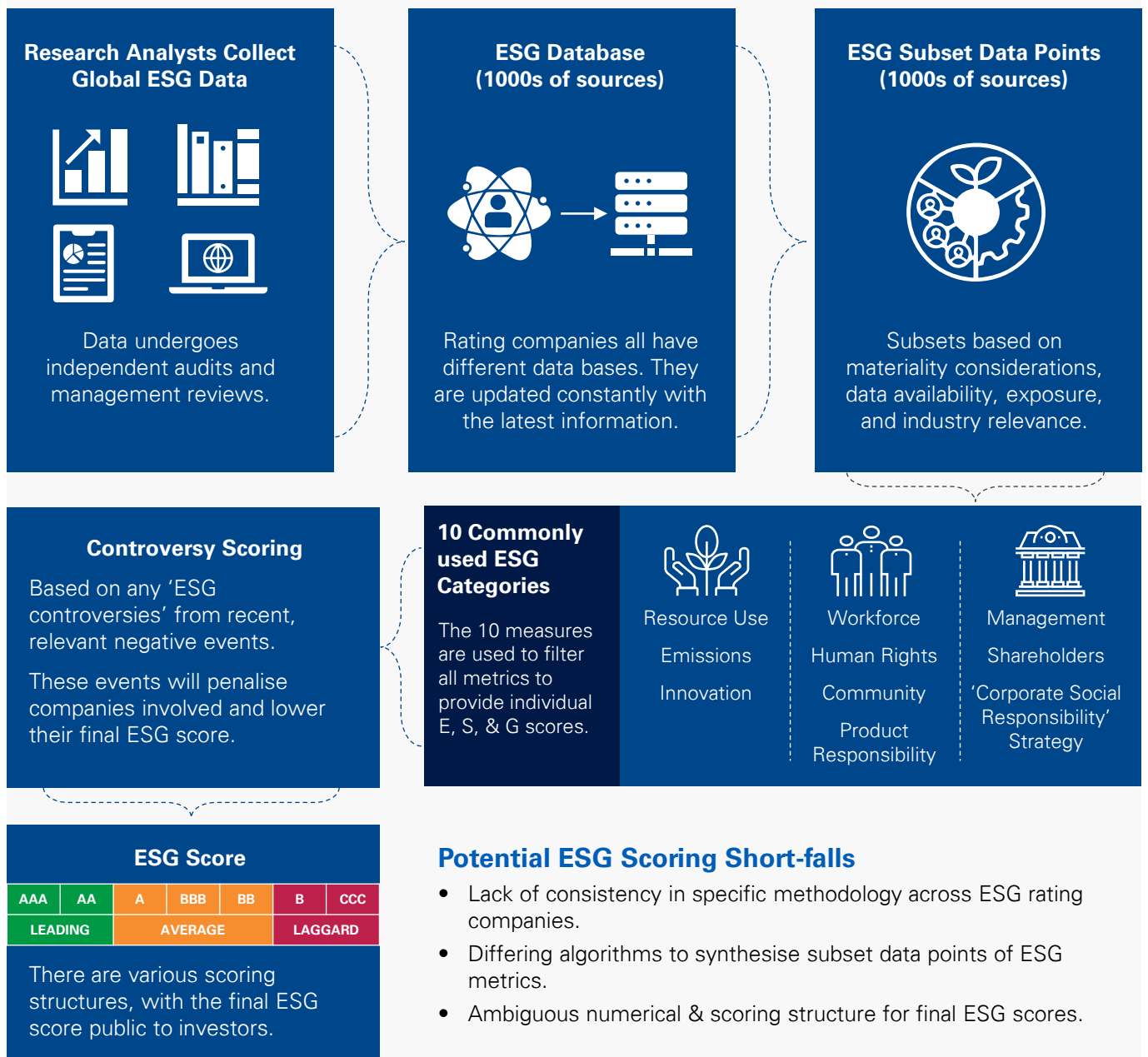
Monitoring & Measurement



ESG factors have become fundamental measurements globally for company valuation, risk management, and corporate regulatory compliance. Incorporating ESG into business assessments and public reporting presents a more holistic and transparent view of company practice for all stakeholders. However, further development of ESG reporting is required before a consistent and standardised methodology is established at a global scale.

General ESG Scoring Framework:

This framework generalises the method used to calculate ESG scores across a range of globally recognised ratings agencies.^[41, 42, 43, 44, 45]



Metrics & Calculations

Measurement of ESG has become a topic of discussion across the global gas industry as the requirements for customers, partners, shareholders, legislation, and financiers become more stringent.

Organisations wishing to comply with the procurement requirements of partners and legislative environments framing their operating context currently have limited support, standards for reference, or methodologies for use in the tracking of their ESG impact. Currently the

primary standard is to report on ESG, not how or what to report on within this broad topic. Metrics used largely reflect that firms report on similar and disparate topics differently.

The calculations and metrics used by third parties to judge ESG progress or profile of potential customers, partners, or suppliers can be difficult to interpret and compare.

ESG Scoring Challenges

ESG is measured and reported in a number of different ways. A variety of ESG rating organisations exist to support organisations apply ESG frameworks when measuring their impact. Investors and financiers increasingly require organisations to align with one of the numerous rating agencies which inform the lens through which future valuations and multipliers are applied.

Typically, rating agencies rely on a system of assigning impact and importance values to each "pillar" of ESG (for example communities, governance, etc.) and then assess the performance of an organisation against each of these criteria to develop a final rating. This is then represented in a comparable form such as AAA-CCC.^[42]

As noted above, the use of different ESG scoring methodologies globally brings rise to a number of gaps, including:

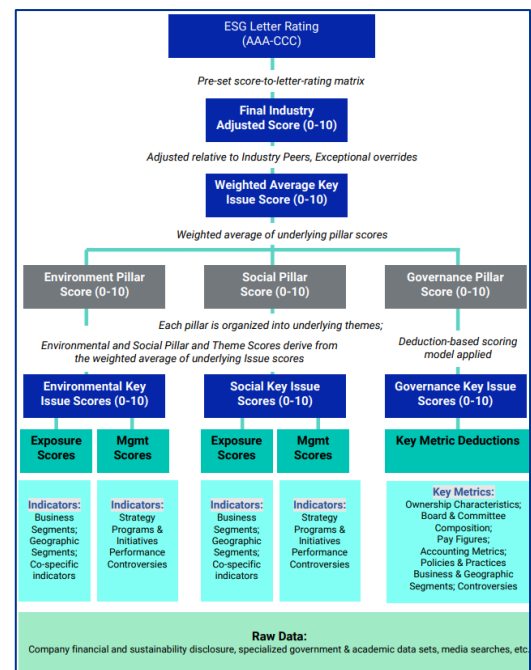
- ESG metrics and frameworks lack standardisation and increased reporting methodologies further erodes comparability of ESG ratings and metrics.
- The use of different ESG rating methodologies may lack transparency due to minimal disclosure requirements, which may facilitate 'greenwashing'.
- The assignment of weight values to each element of ESG may be incomparable between different ratings agencies.
- Some metrics and calculations are not subject to mandatory third party assurance.

Example of ESG Scoring Frameworks

Indicators and weightings for Thomson Reuters' method of ESG Scoring^[41]

Pillar	Category	Indicators in Scoring	Weights
Environmental	Resource Use	20	11%
	Emissions	22	12%
	Innovation	19	11%
Social	Workforce	29	16%
	Human Rights	8	4.50%
	Community	14	8%
	Product Responsibility	12	7%
Governance	Management	34	19%
	Shareholders	12	7%
	CSR Strategy	8	4.50%
Total		178	100%

MSCI Hierarchy of ESG Scoring^[27]



Challenges and Gaps in Calculation

Measurement and metrics are important for organisations to consider as they fundamentally relate to future ESG action. ESG targets have been largely driven by ad-hoc approaches to meeting the broad requirements of ESG reporting, rather than any rigorous standardisation driven by mandatory ESG impact tracking.

Implementation of a carbon tax, or other ESG related legislative enforcement of ESG behaviour may result in more rigorous scrutiny of organisational ESG metrics and the calculations behind them. For example, carbon offsetting has been scrutinised and it has become apparent that certain calculations and metrics have not been well accounted for or accurate.

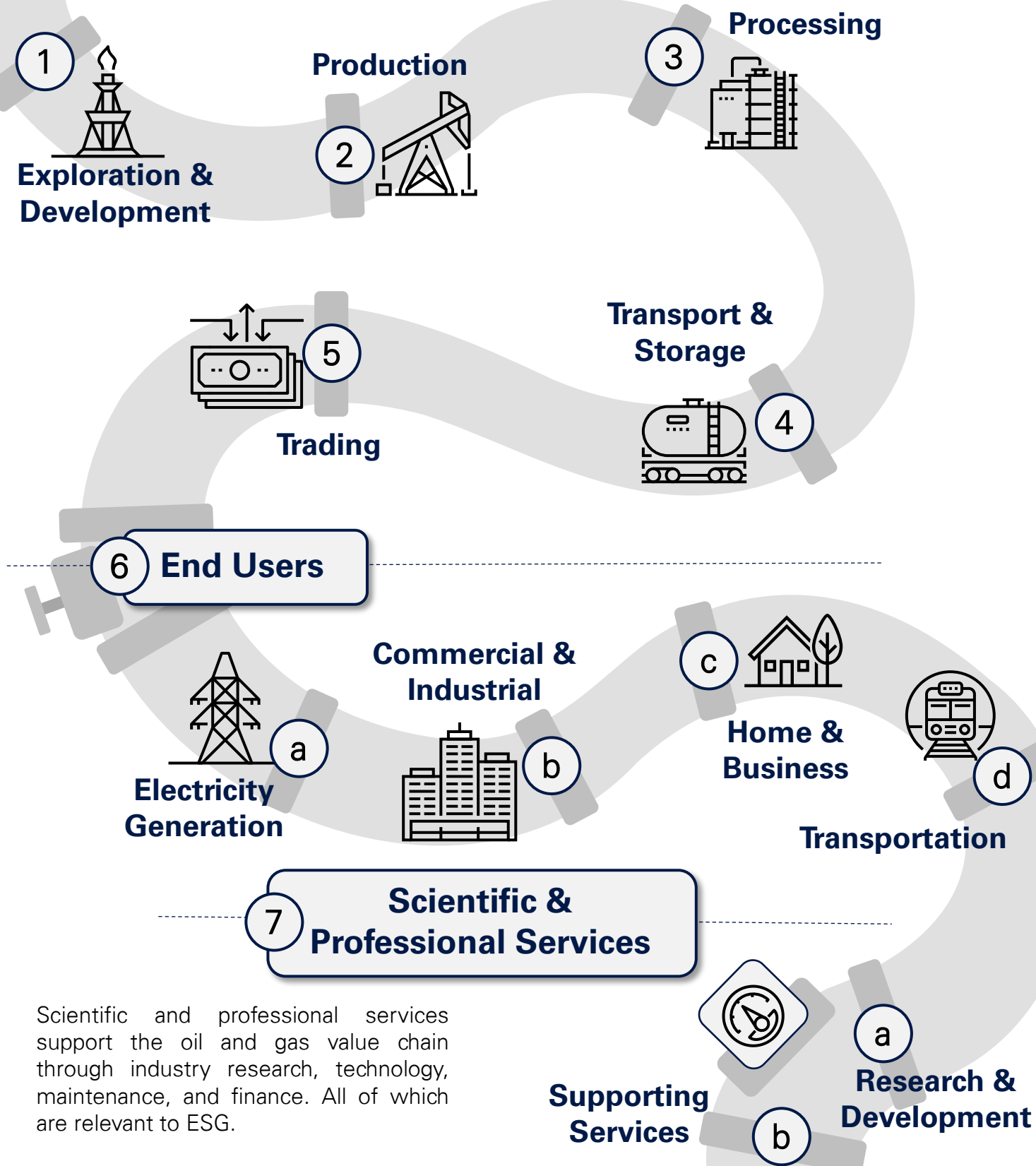
The Oil & Gas Supply Chain Dissected



The Gas Value Chain

The oil and gas value chain is an overview of the passage of value from exploration to end use within the industry and gives context to the specific roles of certain organisations. The ESG context for different organisations is largely informed by their position within the value chain and the kinds of activities they undertake.

The oil and gas value chain at a high level is presented below:



Scientific and professional services support the oil and gas value chain through industry research, technology, maintenance, and finance. All of which are relevant to ESG.

Upstream Value Chain

1

Exploration & Development



Overview

In the exploration phase, gas deposits are identified through a variety of geological sampling techniques ranging from surveying to drilling and resource modelling. This is used to identify and define a hydrocarbon resource body. The definition of this resource is then used to develop extraction feasibility studies and engineering designs. At the end of exploration a body of resource has been identified. Designs and studies will then be completed to define the economic extraction and sale at market strategy in preparation for production.

Primary ESG Considerations



E: Primary concerns are land and water stewardship.



S: Land access and community relations are important considerations during exploration.



G: Permitting and managing the regulatory environment of new developments.

Examples of Explorers:



Shell: Large cap supermajor incorporate exploration into their project pipeline.



Buru Energy: Mid cap operator with exploration portfolio to support pipeline.



Carnarvon: Small cap explorer focused solely on discovery and sale of projects.

2

Production



Overview

The production component of the value chain is the physical extraction of gas from identified gas fields. This is through conventional and unconventional means, such as hydraulic fracturing, and takes place onshore and offshore depending on the reservoir. Production covers a wide range of activities and operational practices from well construction to production and decommissioning. It involves a number of different specialised activities from maintenance and operation. Production generally yields a raw product in need of further processing and separation.

Primary ESG Considerations



E: Carbon emissions, water and land stewardship, and decommissioning.



S: Community relations and licence to operate. Community impact of decommissioning.



G: Managing reporting and permit obligations and regulatory requirements. Ethical operation practices.

Examples of Producers:



ConocoPhillips: Large cap supermajor with substantial production pipeline.



Beach Energy: Large regional oil and gas major.



Arrow Energy: Joint venture small to mid producer of gas products.

Midstream Value Chain

3

Processing



Overview

The processing component of the value chain is the process of purifying gas to remove contaminants and separate other gasses and products. The waste and contaminants are managed through flaring, venting or other waste management processes. The product is then stored either in gaseous or liquid form for transport. Processing facilities are typically situated near large accessible water bodies for ease of transport or directly at the extraction location.

Primary ESG Considerations



E: Carbon emissions through flaring and venting. Land use and water stewardship.



S: Employment and community relations are important considerations as these operations support communities.



G: Permitting and managing the regulatory environment of new facilities.

Examples of Explorers:



AUSTRALIA
PACIFIC
LNG

Australia Pacific LNG: Joint Venture CSG domestic provider and exporter of LNG.



Carnarvon Energy: Small cap explorer focused on discovery and sale of projects.



SK Energy: Large cap Korean petroleum refiner, selling to the domestic and international market.

4

Transport



Overview

Transporting gas varies around the world and is the link between the processing plant and the end user. Primarily, natural gas is transported through pipelines or transported in trucks as LPG or is liquefied into LNG for shipping. Pipelines enable continuous transport across vast distances, but require a significant and connected land corridor as well as immense capital and operational expenditure. Shipping enables bulk transport from processing to storage facilities for trade and end use, and links global and domestic markets.

Primary ESG Considerations



E: Carbon emissions of transport, land use impact of pipelines and depots.



S: Effective provision of gas through robust supply chains (preventing disruptions). Land use and community involvement.



G: Managing reporting and regulatory approval and requirements. Ethical operation practices and global trade compliance.

Examples of Producers:



MOL: Large global shipping company with a large LNG carrier fleet.

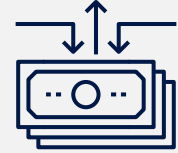


Enbridge: Large Canadian multinational pipeline company.

Downstream Value Chain

5

Trading



Overview

There is a significant trading market in gas from production, through to processing, transport and distribution. In trading, gas is bought and sold by various parties in order to allocate it effectively to a broad and disparate market of customers and producers through pipelines with strict capacity and flow requirements. There is market ability for various suppliers and gas companies to trade the commodity to transport providers and domestic/international markets. There is a mixture of supply hub trading which can connect multiple gas courses through to the short term trading market based on daily use.

Primary ESG Considerations



E: Scope 2 & 3 emissions for organisations buying and selling gas.



S: Community relations and outlook. Social license to operate and fair trading practices.



G: Managing the regulatory environment and ensuring compliance.

Examples of Explorers:



AGL Energy: Australian domestic producer, trader & provider.



Shell: Large Multinational gas producer and trader.

6

End Users



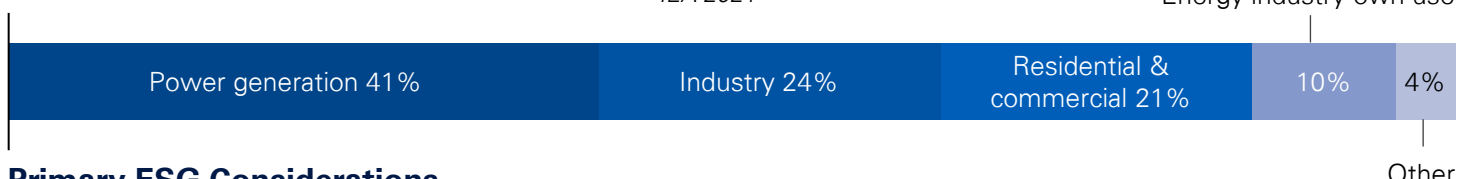
Overview

Gas has a wide range of uses in domestic and industrial energy, and is used as a petrochemical starting reagent to heat homes and buildings, cook food, and to power transport and vital infrastructure. The end users for gas cover all industries and geographies, with major demand coming from the seaborne LNG industry to power electricity generation overseas. Gas is widely used in the domestic setting for homes, water heating and cooking. It is also utilised commercially for building heating and cooling, refrigeration, and cooking. There are also wide spread industry uses in combined power, electricity, and fuel systems. While 20% of gas in Australia is used in electricity generation, it is also widely used as a starting reagent especially in the production of fertiliser, in which it is used to generate hydrogen.^[46]

Global Natural Gas Demand by Source

IEA 2021^[9]

Energy industry own use



Primary ESG Considerations



E: Emissions, land use, transport and infrastructure impact.



S: Reliably providing an essential commodity to communities.



G: Supply chain geopolitics and managing the implications of the provision of gas across borders.

Parallel Value Chains

The parallel value chains are the supporting industries which are integrated into the Australian Gas Industry landscape. They provide vital services through contractors, technical and operational capabilities, construction and development services, and research and development. These segments of the value chain are more extensive and these two categories are intended to present an overview of organisations and the ESG considerations which are relevant beyond the immediate direct value chain of gas.

a

Research & Development

Overview

Research and development (R&D) is a large industry supported by the Australian Gas Industry. There has been significant technological growth within the gas sector with a heavy focus on more efficient, cost effective & environmentally friendly. R&D provides essential support in delivering operational improvements and end use cases for gas products while also supporting efforts to reduce the overall footprints and impact of gas wells.

CCUS (Carbon capture, utilisation and storage) is an example of innovative R&D which has the potential to reduce emissions across the sector.

Primary ESG Considerations



E: R&D practices and managing practical impact of new technologies.



S: Community relations and demonstration of positive impact. Managing concerns of automation.



G: Managing the regulatory environment and ensuring new technology compliance.

b

Supporting Services

Overview

There are various supporting service industries which provide vital professional services to the Australian Gas Industry through provision of engineering, technology and maintenance advisory.

Significant industry support is utilised to ensure the successful operation of the gas market from a maintenance requirement of the physical infrastructure.

There is also significant investment into professional and operational services from gas companies which often outsource elements of their operations to third parties.

Primary ESG Considerations



E: Management of environmental practices of third parties and contractors.

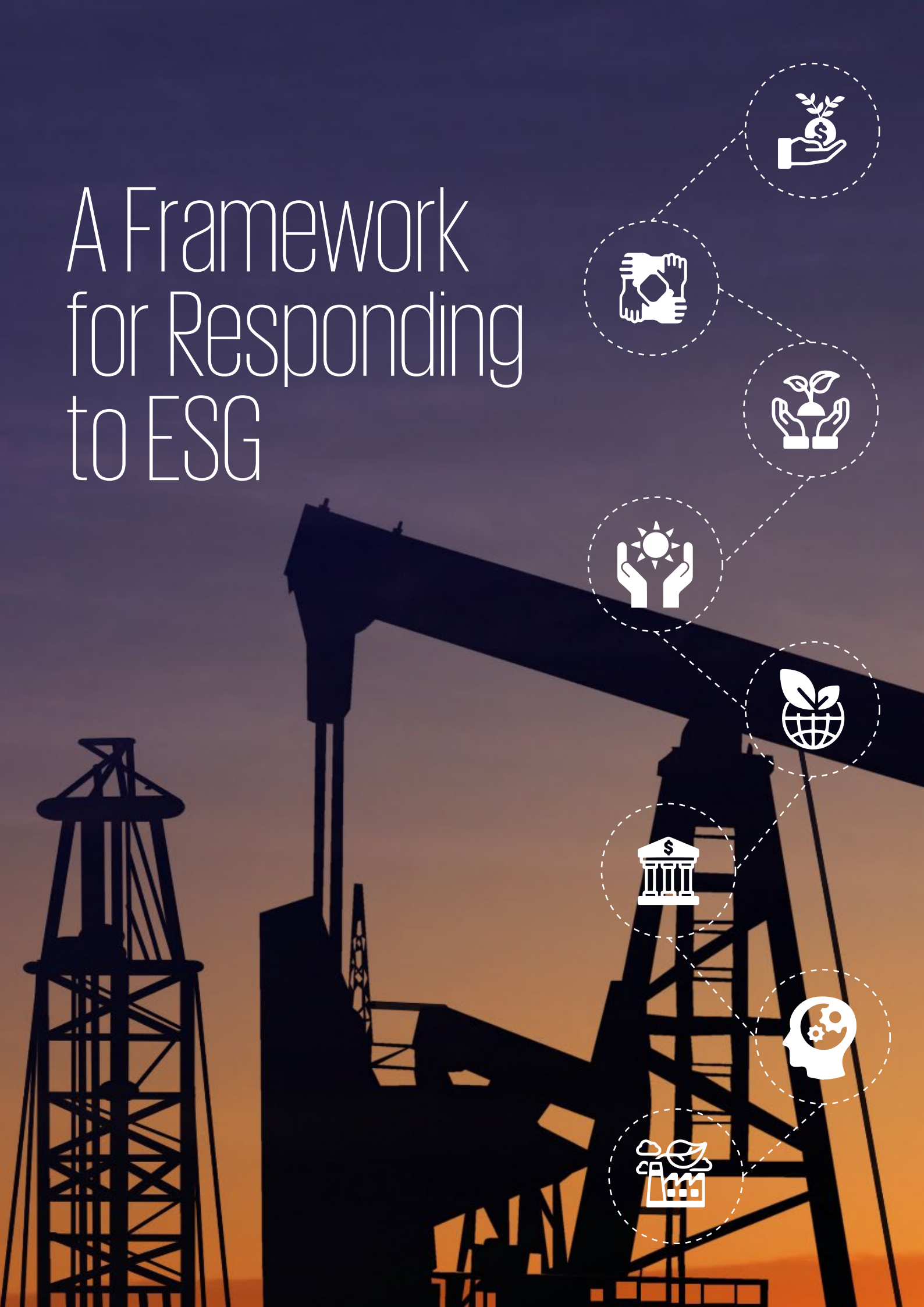


S: Community relations and employment over various sectors as well as sustaining rural communities through employment.



G: Managing regulatory compliance and reporting as well as procurement across the supply chain.

A Framework for Responding to ESG



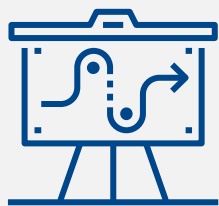
DART: A Framework for Hitting your ESG Targets

Building effective ESG strategies into your business can be challenging. However, the efficient management of sustainability issues can have immense value. The below 'DART' framework is a high-level pathway to building effective ESG governance into your business and translating your ESG strategy and ambitions into tangible outcomes with ESG impact.



Define Your Ambition

Define the materiality of key ESG considerations for your specific operating context. Develop a robust ambition for achieving specific ESG goals which align with broader societal objectives, SDGs and trends.



Align Your Strategy

Work to understand your current ESG context and the requirements of your partners and customers to develop a practical and actionable strategy and roadmap to achieve your specific ESG ambitions and goals.



Report & Communicate

Communicate your ESG action, impact, strategy, and ambition effectively through a reporting methodology which is aligned with appropriate global standards and metrics, and track your impact against peers.



Transform & Embed

Proactively and practically transform your business by embedding your ESG framework, and gain independent assurance. Actively engage and collaborate with the community to address and resolve concerns.

Building Your ESG Methodology



Define

Understand, define, and quantify the ESG issues material to your business and stakeholders. Depending on your organisation's level of involvement at each stage of the value chain, certain ESG factors may be more or less material to your particular operating context.



Align

Ensure that your corporate activities are compatible and practically aligned to achieving relevant SDGs and other ESG goal frameworks. Assess your contributions or impacts against the achievement of these goals.



Develop

Define and implement a long term, future focused, practical sustainability strategy to drive long term value creation and embed real ESG principles and impact into your strategic ambitions and future goals.



Adopt

Choose the right reporting approaches and frameworks for your business and ensure alignment with the most applicable and widely adopted ESG standardisation body such as the ISSB or GRI.



Track

Integrate all relevant financial and non-financial information and metrics into your reporting cycle. Ensure you are tracking your impact effectively across the Environmental, Social and Governance pillars to enable good transparency.



Report

Communicate ESG impact and activity and provide supporting evidence and metrics (periodic reporting, media releases etc.) to ensure transparency of positive impacts, progress, and ambitions.



Benchmark

Track your performance and practices against industry peers. Assess the quality of your reporting against industry peers as well as comparison of performance against practical metrics.



Embed

Ensure effective governance of your business activities and enforce compliance by gaining independent assurance for your internal and external reporting systems and auditing ESG reporting and progress.

Summary of ESG Messages for the Gas Sector



The Opportunity for ESG Value

A proactive response to ESG can create long term value for organisations, their shareholders and stakeholders by reducing risk, seizing opportunities and optimising their response to the material impacts of sustainability. The Australian Gas Industry has an opportunity to leverage market leadership in ESG as a supplier of gas to global markets during the energy transition. The industry should be proactive in building businesses which harnesses the future value of ESG, including robust ESG strategies with the agility required to harness new opportunities.



Defining the Future Role of Gas

The gas industry needs to define and communicate the future role of gas and how it aligns with global ESG goals. Decarbonisation commitments such as those made in the Paris Agreement do not align with the current and projected emissions trajectory. Therefore, although current IEA scenario modelling of future gas demand indicates a future for gas towards and beyond 2050, a course correction designed to achieve climate targets may result in significant changes to these forecasts. The industry should define where gas fits into future scenarios to define the materiality of decarbonisation and other ESG trends.



Responding Effectively to ESG

The materiality of climate change and decarbonisation are driving strong ESG responses across the gas industry. However, the social and governance elements are becoming more prominent and are likely to become more material in the future. Decarbonisation is one of the most prominent issues with the most rigorous reporting. The legislative environment and increased activity by activist investors and other actors are increasing the importance of complying with Social and Governance elements of ESG.



Standardising When No One Size Fits All

The gas industry would benefit from a greater alignment on key ESG targets topics and tracking. Noting that organisations across the value chain will have unique ESG priorities based on their operations, location and stakeholders, a unified understanding of ESG would empower small players with limited ESG capacity, and simplify partnerships and compliance down the supply chain. Reporting is currently not standardised and the industry would likely benefit from improved alignment on standards and methodologies to remain ahead of regulation in the future.



The Globalisation of ESG

The Australian Gas Industry is a net exporter of gas and is therefore fundamentally linked to developments in the global market. Australia needs to respond to the global ESG context as well as domestic trends. Therefore, the Australian Gas Industry needs to be alert and responsive to global changes. Potential learnings from global peers in regions such as the EU is a window into how potential future ESG changes in Australia may manifest. Understanding the global market is also vital for navigating the volatility in prices which has significant impact on revenues for gas industry operators.



Emerging Trends in ESG

Companies across the gas industry need to navigate the rapidly changing ESG landscape of the future. Geopolitical considerations, new developments in technology, social media, trends in access to capital, and developments in activism by investors, board members, and customers are changing the way the gas industry does business. As ESG scrutiny impacts access to capital, and geopolitics impacts supply chains, the industry needs to maintain agility and build robust strategies in order to harness emerging opportunities and offset exposure to risks.

Appendix

A photograph of a construction site. In the foreground, a large white pipe is partially visible on the left, resting on wooden blocks. The ground is a reddish-brown dirt road with visible tire tracks. In the background, a red excavator is working on the site. The sky is clear and blue, and there are some trees in the distance.

References

- [1] – United Nations. (2022). Transforming our world: the 2030 Agenda for Sustainable Development. [Transforming our world: the 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs \(un.org\)](#)
- [2] – United Nations Global Compact. (2022). Making Global Goals Local Business. [Making Global Goals Local Business | UN Global Compact](#)
- [3] – World Economic Forum. (2020). Toward Common Metrics and Consistent Reporting of Sustainable Value Creation. [WEF_IBC_ESG_Metrics_Discussion_Paper.pdf \(weforum.org\)](#)
- [4] – Climate Change Authority. (2021). Trade and Investment trends in a decarbonising world. [Trade and investment trends in a decarbonising world \(climatechangeauthority.gov.au\)](#)
- [5] – International Energy Agency. (2020). 2021-2025: Rebound and beyond. [2021-2025: Rebound and beyond – Gas 2020 – Analysis - IEA](#)
- [6] – Australian Energy Market Operator (AEMO). (2021). Gas Statements of Opportunities for eastern and south-eastern Australia. https://aemo.com.au/-/media/files/gas/national_planning_and_forecasting/gsoo/2021/2021-gas-statement-of-opportunities.pdf?la=en
- [7] – Australian Council of Superannuation Investors (ACSI). (2021). Net Zero Targets Jump Among ASX200 Companies. <https://acsi.org.au/media-releases/net-zero-targets-jump-among-asx200-companies/>
- [8] – Forbes. (2021). The Case for Fossil Fuel Divestment. [The Case For Fossil Fuel Divestment \(forbes.com\)](#)
- [9] – International Energy Agency. (2021). World Energy Outlook 2021. www.iea.blob.core.windows.net/assets/4ed140c1-c3f3-4fd9-acae-789a4e14a23c/WorldEnergyOutlook2021.pdf
- [10] – International Energy Agency. (2021). Global Energy Review 2021. <https://www.iea.org/reports/global-energy-review-2021>
- [11] – Investopedia. (2022). What are the Main Substitutes for Oil and Gas Energy? <https://www.investopedia.com/ask/answers/060415/what-are-main-substitutes-oil-and-gas-energy.asp>
- [12] – Net Zero Tracker. (2022). Global Net Zero Coverage. [Net Zero Tracker | Welcome](#)
- [13] – Intergovernmental Panel on Climate Change (IPCC). (2021). Climate Change 2021 The Physical Science Basis. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report_smaller.pdf
- [14] – Federal Register of Legislation. (2018). Modern Slavery Act 2018. <https://www.legislation.gov.au/Details/C2018A00153>
- [15] – McKinsey & Company. (2020). Cybersecurity in a Digital Era. <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Risk/Our%20Insights/Cybersecurity%20in%20a%20digital%20era/Cybersecurity%20in%20a%20Digital%20Era.pdf>
- [16] – United States Environmental Protection Agency. (2021). The Origins of EPA. <https://www.epa.gov/history/origins-epa>
- [17] – Beach Energy. (2021). Sustainability Report.
- [18] – Marathon Petroleum. (2020). Sustainability Report.
- [19] – Tourmaline Oil Corp. (2020). Sustainability Report
- [20] – Santos. (2021). Sustainability Report
- [21] – BPH Energy. (2021). Northern Beaches Paddle Out. <https://www.northernbeachesadvocate.com.au/2021/04/17/pep-11-paddle-out/>
- [22] – Woodside. (2021). Sustainability Report.
- [23] – INPEX. (2021). Sustainability Report.
- [24] – Enbridge. (2020). Sustainability Report.
- [25] – Blackrock. (2021). Global Diversity, Equity, and Inclusion Report.
- [26] – Arrow Energy. (2022). Safety Initiatives. <https://www.arrowenergy.com.au/innovation/safety-initiatives>
- [27] – MSCI. (2022). ESG Services. <https://www.msci.com/esg/reporting-services>
- [28] – Shell. (2020). Sustainability Report.
- [29] – Oil Search. (2020). Sustainability Report.
- [30] – Viva Energy Group. (2020). Sustainability Report.
- [31] – International Financial Reporting Standards Foundation. (2021). International Sustainability Standards Board (ISSB). [IFRS - International Sustainability Standards Board](#)
- [32] – Global Reporting Initiative. (2022). The Global Standards for sustainability reporting. [GRI - Standards \(globalreporting.org\)](#)
- [33] – Queensland Treasury. (2021). Environmental, Social, Governance. [Environmental, Social and Governance - Queensland Treasury](#)
- [34] – WA Department of Treasury. (2021). Supporting Continuous Improvement in ESG Outcomes for Western Australia. [Supporting Continuous Improvement in ESG Outcomes for Western Australia \(www.wa.gov.au\)](#)
- [35] – Australian Competition & Consumer Commission (ACCC). (2022). Industry ombudsmen and dispute resolution. [Industry ombudsmen & dispute resolution | ACCC](#)
- [36] – Federal Register of Legislation. (2010). Competition and Consumer Act 2010. [Competition and Consumer Act 2010 \(legislation.gov.au\)](#)
- [37] – Clean Energy Regulator. (2020). Australian Carbon Credit units. [Australian carbon credit units \(cleanenergyregulator.gov.au\)](#)
- [38] – Australian Human Rights Commission. (2022). Business and Human Rights. [Business and Human Rights | Australian Human Rights Commission](#)
- [39] – Department of Agriculture, Water and the Environment. (2014). Fourth Assessment of the National Water Initiative. [National water reform - DAWE](#)
- [40] – Department of Agriculture, Water and the Environment. (2018). National Clean Air Agreement. [National Clean Air Agreement - DAWE](#)
- [41] – Thomson Reuters. (2017). Thomson Reuters ESG Scores. [Thomson Reuters ESG Scores.pdf \(esade.edu\)](#)
- [42] – MSCI. (2022). ESG Ratings Methodology. [MSCI ESG Metrics Calculation Methodology](#)
- [43] – Refinitiv. (2021). Environmental, Social and Governance Scores. [Environmental, Social and Governance \(ESG\) Scores from Refinitiv](#)
- [44] – Sustainalytics. (2021). ESG Risk Ratings – Methodology Abstract. [ESG Risk Ratings Methodology \(sustainalytics.com\)](#)
- [45] – RepRisk. (2021). Methodology Overview. <https://www.reprisk.com/news-research/resources/methodology>
- [46] – Department of Industry, Science, Energy and Resources. (2021). Australian Energy Statistics. [https://www.energy.gov.au/data/australian-electricity-generation-fuel-mix#:~:text=The%20figure%20shows%20Australian%20electricity,%25\)%20and%20oil%20\(2%25](https://www.energy.gov.au/data/australian-electricity-generation-fuel-mix#:~:text=The%20figure%20shows%20Australian%20electricity,%25)%20and%20oil%20(2%25)
- [47] – The Wall Street Journal. (2021). How Far have we really Gotten with Alternative Energy? <https://www.wsj.com/articles/how-far-have-we-really-gotten-with-alternative-energy-11636571966>
- [48] – Federal Register of Legislation. (2011). Work Health and Safety Act 2011. <https://www.legislation.gov.au/Details/C2018C00293>
- [49] – US Energy Information Administration (EIA). (2021). Natural Gas Explained. <https://www.eia.gov/energyexplained/natural-gas/use-of-natural-gas.php#:~:text=The%20industrial%20sector%20uses%20natural,as%20leas%20and%20plant%20fuel.>
- [50] – US Energy Information Administration. (2020). Japan. <https://www.eia.gov/international/analysis/country/JPN>
- [51] – Energy Tracker Asia. (2021). The Risks of the Continued Reliance on Oil and gas in South Korea. <https://energytracker.asia/the-risks-of-the-continued-reliance-on-oil-and-gas-in-south-korea/>
- [52] – McKinsey & Company. (2021). The impact of decarbonisation on the gas and LNG industry. [The impact of decarbonization on the gas and LNG industry | McKinsey](#)
- [53] – McKinsey & Company. (2020). The future is now: How oil and gas companies can decarbonise. [The future of oil and gas is now: How companies can decarbonize | McKinsey](#)
- [54] – Energy & Climate Intelligence Unit. (2022). Net Zero Scorecard. [Energy & Climate Intelligence Unit | Net Zero Scorecard \(eciu.net\)](#)
- [55] – World resources Institute. (2021). 5 Things to know about the IEA's Roadmap to Net Zero by 2050. <https://www.wri.org/insights/5-things-know-about-ieas-roadmap-net-zero-2050>
- [56] – Forbes. (2020). The Impact of Environmental, Social and Governance (ESG) Issues on Companies Today. <https://www.forbes.com/sites/timothyjmclimon/2020/06/29/the-impact-of-environmental-social-and-governance-esg-issues-on-companies-today/?sh=228e59185d2a>

Useful ESG Sources

This report cannot comprehensively cover the detailed nature within ESG in oil & gas industry. This page provides additional online resources to assist with learning, implementing and improving environmental, social, and governance practices within your organisation.

International Sustainability Standards Board – Overview of this new global standard

<https://www.ifrs.org/groups/international-sustainability-standards-board/#about>

International Energy Agency – Net Zero by 2050

www.iea.org/reports/net-zero-by-2050

International Energy Agency – 2021 – 2025: Rebound and beyond for gas

www.iea.org/reports/gas-2020/2021-2025-rebound-and-beyond

MSCI ESG Ratings – Overview of how MSCI ESG ratings are calculated

<https://www.msci.com/our-solutions/esg-investing/esg-ratings>

United Nations - Sustainability Goals

<https://sdgs.un.org/goals>

S&P - Global Resources frequently leaned on in the Oil & Gas industry

<https://www.spglobal.com/en/research-insights/articles/esg-industry-report-card-oil-and-gas>

Forbes - ESG Standards becoming mandated for Oil & Gas companies

<https://www.forbes.com/sites/forbestechcouncil/2021/08/03/an-esg-reckoning-has-arrived-for-the-oil-and-gas-industry/?sh=1e2c49e151fb>

Womble Bond Dickinson – How ESG applies to the Oil & Gas industry & why it matters

www.womblebonddickinson.com/us/insights/articles-and-briefings/esg-how-it-applies-oil-gas-industry-and-why-it-matters

American Gas Association Playbook – A vision for the future with gas in America

<https://playbook.aga.org/>

Energy Networks Australia & APGA – Delivering the pathway to net zero for Australia 2022 outlook

www.agit.org.au/wp-content/uploads/2022/04/Decarb-brochure-Final_20220331.pdf

Australian Gas Industry Trust – Monitoring, reporting and reducing methane emissions 2021

www.agit.org.au/wp-content/uploads/2021/11/AGIT-Methane-Emissions-Report-2021.pdf

Taskforce on Climate related Financial Disclosures – Climate change presenting financial risks to the global economy

[Task Force on Climate Related Financial Disclosures | TCFD\) \(fsb-tcfd.org\)](https://www.fsb-tcfd.org/)

International Petroleum Industry Environmental Conservation Association – Compendium of Environmental & social good practices

[Environmental and social good practice for the energy transition: A compendium of Ipieca good practices | Ipieca](https://www.ipieca.org/en/our-work/industry-practices/industry-practices)

Further Reading

This report is an overview of ESG considerations in the oil and gas industry. This page provides additional reading material to assist with learning, implementing and improving ESG practices within your organisation.

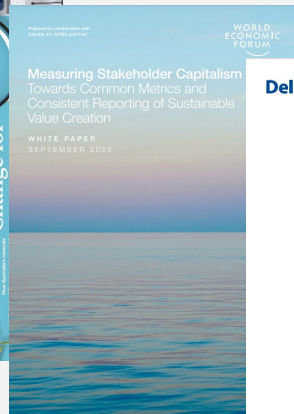
ESG Supporting Materials



Corporate Climate Transition Plans
Investor Group on Climate Change (IGCC)



ESG: Change for the Better
Minerals Council of Australia



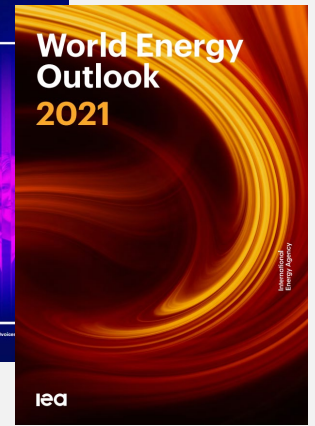
Measuring Stakeholder Capitalism
World Economic Forum (WEF)



Key Components of an oil and gas governance framework
Deloitte



30 Voices on 2030: The Future of Energy
KPMG



World Energy Outlook 2021
International Energy Agency

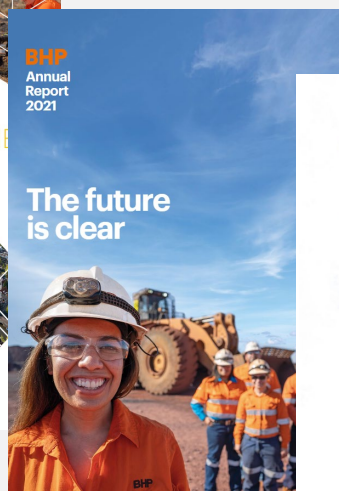
Oil & Gas ESG Reports



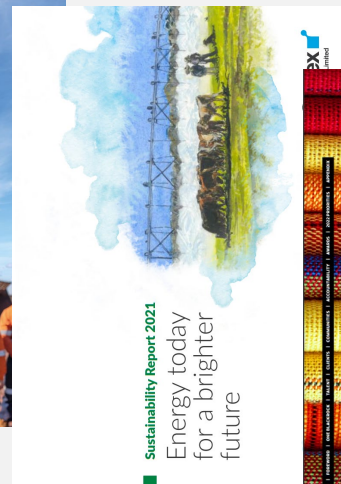
2021 Sustainability Report
Origin Energy



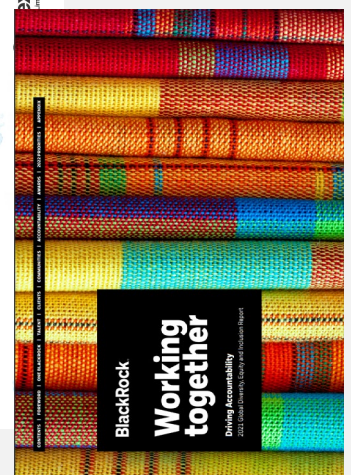
2020 Sustainability Report
Shell



2021 Sustainability Report
BHP



2021 Sustainability Report
Senex



2021 Global Diversity, Equity and Inclusion Report
BlackRock 48