

The impact of the Safeguard Mechanism on M&A:

Considerations for heavy emitters and fossil fuel producers



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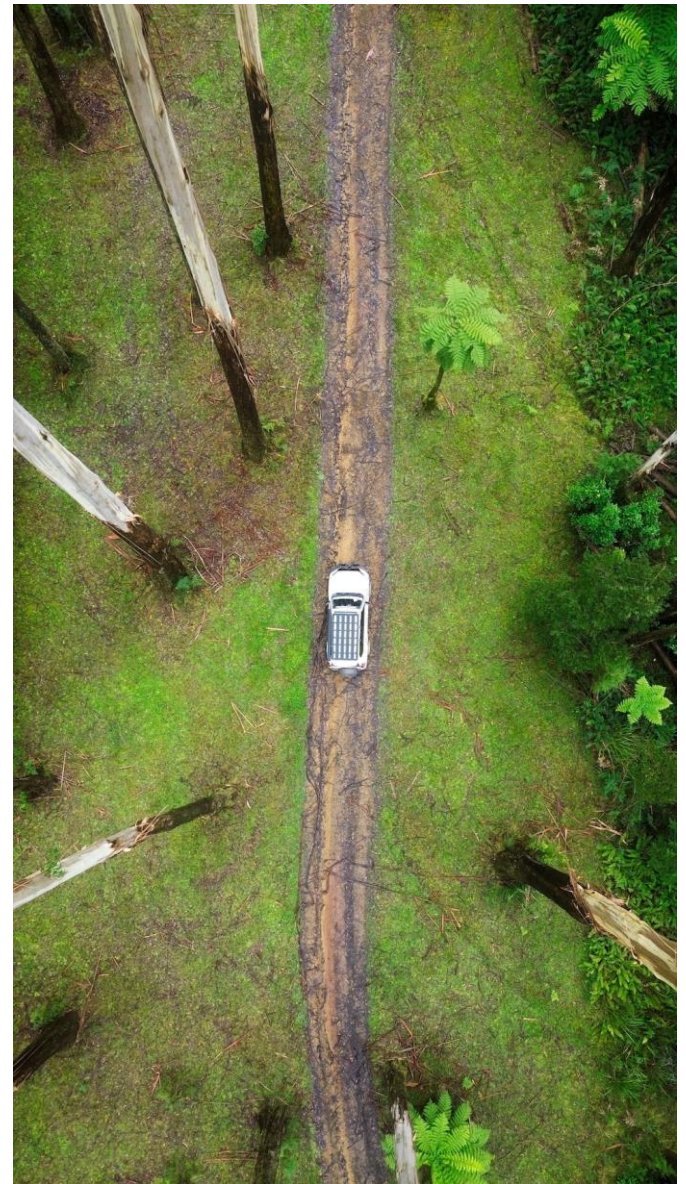
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Executive Summary



From 1 July 2023, the Safeguard Mechanism was amended to encourage Australia's highest emitters to reduce or offset their Scope 1 emissions.

These reforms are part of Australia's target of reducing emissions by at least 43% below 2005 levels by 2030.

On 5 May 2023, the Federal Government registered legislative rules to reform the Safeguard Mechanism.

- **Safeguard Mechanism:** The Safeguard Mechanism is the Australian Government's policy for reducing emissions from Australia's highest emitting facilities. It sets legislative limits on greenhouse gas (GhG) emissions known as baselines.¹
- **Covered Facilities:** The Safeguard Mechanism applies to c.220 facilities (Covered Facilities) responsible for around 28% of Australia's direct Scope 1 GhG emissions.²
- **Baseline Determination:** Every Covered Facility is assigned a Scope 1 emission baseline. These are in the process of being reduced to eliminate existing headroom. One of the historical criticisms of the Safeguard Mechanism was the gap that existed between actual emissions and baseline emissions did not incentivise emissions reductions.

- **Baseline Reductions:** Will be introduced at a rate of 4.9% p.a. to 2030, except in circumstances where a discounted baseline reduction rate applies.

Considerations for Fossil Fuel Producers

The revised Safeguard Mechanism will not impact all Covered Facilities in the same manner.

Opportunities for flexible arrangements

Emissions-Intensive Trade-Exposed facilities may apply for discounted baseline reduction rates, potentially as low as 2% (in limited circumstances).

A multi-year monitoring period of up to five years may enable select Covered Facilities to 'average out' a baseline exceedance in early years with below-baseline emissions in subsequent years.

Fossil Fuel specific considerations

A cap on Australian absolute (gross) emissions at current levels (140 MT per annum) decreasing over time may limit new coal mines and oil and gas production.

It has been speculated that over 100 new coal and oil & gas projects may not proceed due to Safeguard Mechanism changes.

In addition, several types of new projects, such as new offshore gas fields, will be required to achieve zero net reservoir emissions from day one.³ This will effectively mandate carbon capture and storage.



Sources: Mergermarket; Clean Energy Regulator, "Safeguard Facility Reported Emissions 2021-22", 21 March 2023; Clean Energy Regulator, "The Safeguard Mechanism", 28 July 2023; Gresham analysis.

Notes: 1. [Australian Government Department of Climate Change, Energy, the Environment and Water](#). 2. Greenhouse gas emissions are the emissions released to the atmosphere as a direct result of an activity, or series of activities at a facility level. 3. All new gas fields for LNG exports will need to utilise technology and offsets to achieve zero net reservoir emissions from day one. They will need to either fully offset, or capture and permanently store, all reservoir carbon emissions.

Under new arrangements multiple mechanisms will encourage emissions reductions including annual baseline declines and offset requirements.

The price of Safeguard Mechanism Credits (SMCs) and Australian Carbon Credit Units (ACCUs) will influence the behaviour of heavy emitters who are unable to reduce their Scope 1 emissions in line with Safeguard Mechanism requirements.

The Role of SMCs, ACCUs and International Offsets

Covered Facilities whose Scope 1 emissions exceed their emissions baselines will be required to surrender SMCs or ACCUs annually to the Clean Energy Regulator to meet their emissions baselines.

SMC Requirements: The Clean Energy Regulator will issue SMCs to Covered Facilities that reduce relevant emissions below their baseline. Facilities that exceed their baselines will be able to surrender banked, borrowed or purchased SMCs to achieve their emissions baselines. SMCs have yet to be issued or traded, however, the same dynamics that drive ACCU prices (see below) are expected to influence the price of SMCs as Covered Facilities seek to meet their emissions reduction requirements at the lowest possible cost.

ACCU Requirements: ACCUs are currently available for purchase from the Commonwealth Government or third parties. In addition, ACCUs can be generated through approved projects.¹

Covered Facilities that exceed their baselines will be able to surrender banked, borrowed or purchased ACCUs to achieve their emissions baselines. If companies are not able to source required ACCUs in any given year, Government-held ACCUs are proposed to be made available for sale to Covered Facilities at a capped price of A\$75 per tonne, indexed at CPI plus 2% annually.

International Units: International carbon credits are not currently eligible for surrender under the Safeguard Mechanism regime.

ACCU Price Considerations

Prices for ACCUs are broadly expected to rise to the A\$75 compliance cap (or higher) well in advance of 2030.

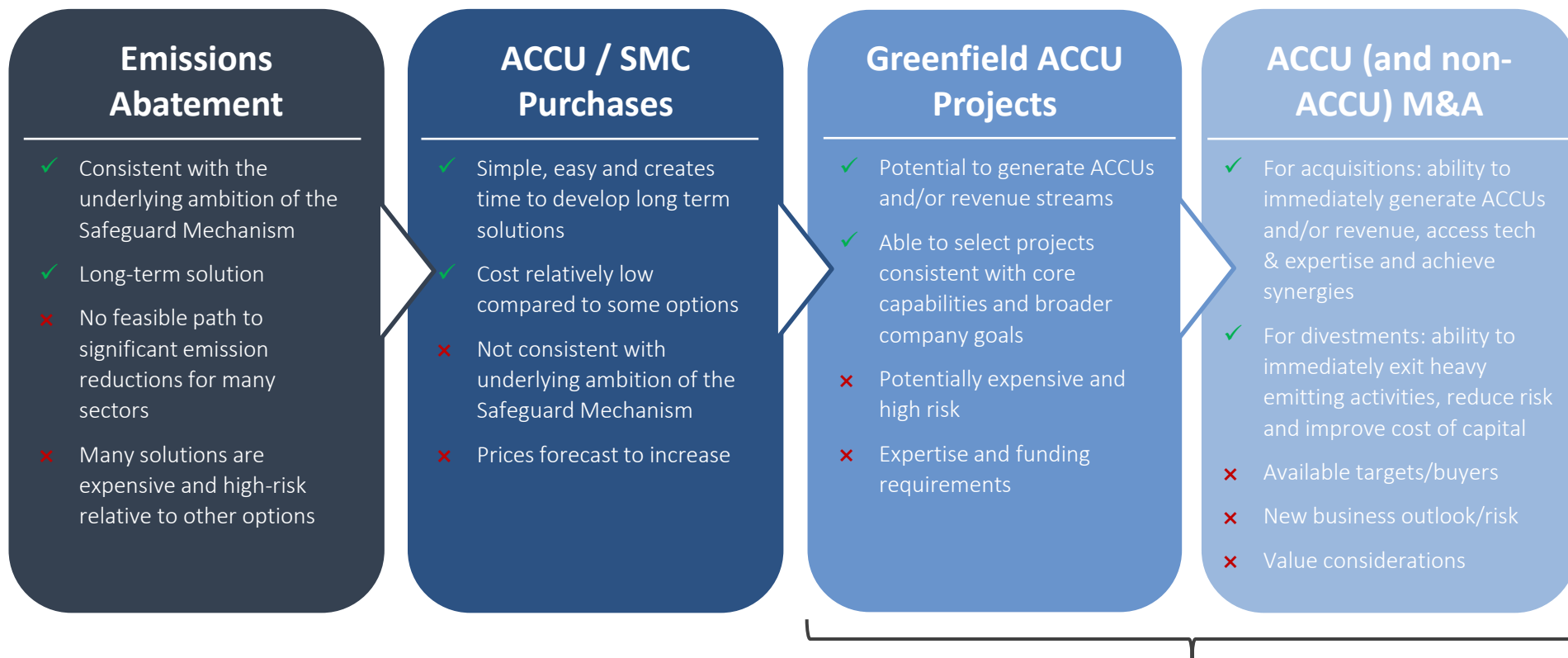
ACCU Methods: There are nine 'methods' through which ACCUs may be produced. However, production is currently dominated but only three methods: vegetation (e.g. reforestation, afforestation, and forest management), waste (e.g. waste-to-energy) and savanna burning (i.e. to reduce emissions from fires).

ACCU Supply vs. Demand: There may not be sufficient ACCU supply for every Covered Facility to meet all future liabilities with ACCUs, even after the issue of SMCs. The rate of annual ACCU supply is increasing, but at a moderating rate. In 2022 ACCU supply increased by 4%. In contrast, ACCU transaction demand is increasing fast. In 2022 there were 23 million ACCU secondary market transactions, triple the volume of 2021. In addition, ACCU transaction demand is likely to experience a step change following the introduction of the amended Safeguard Mechanism.

ACCU Price Outlook: The current ACCU spot price is c.A\$31 but has experienced recent volatility.^{2,3} Prices for ACCUs are broadly expected to rise to the A\$75 compliance cap (or higher) well in advance of 2030.

There are four options available to organisations to achieve Safeguard Mechanism emissions reduction requirements in the coming years.

Most organisations are required to pursue multiple options to achieve their emissions reduction requirements.



This report focuses on M&A and asset level partnership considerations relevant to 1) achieving safeguard mechanism requirements; and 2) achieving organisations' broader emissions related objectives

Low carbon M&A transactions and asset level partnerships are becoming increasingly common for Safeguard Mechanism companies.

Transactions are not always undertaken for the purpose of securing ACCUs. Targets that will benefit from transitioning to net zero can provide long term growth which hard to abate, heavy emitting assets may not deliver.

Transaction Type	Characteristics	Frequency / Availability	Valuation	Other Considerations
ACCU Related Corporate Acquisitions	<p>Involves corporate level M&A to secure ACCU production.</p> <p>Most material potential targets that produce ACCUs do so through vegetation or waste methods.</p>	<p>The number of material ACCU producing organisations, and hence M&A targets, is limited.</p> <p>There are 20 organisations that produce ACCUs of >A\$4m p.a. Of this group, seven have been involved in M&A in the last five years.</p> <p>Few material corporate level transactions involving organisations that produce ACCUs are expected in the medium term.</p>	<p>Where a transaction specifically relates to ACCUs as the primary source of earnings, the target will be valued on the basis of ACCUs.</p> <p>However, where ACCUs are acquired as part of a broader transaction then industry multiples will become relevant.</p> <p>Median LTM EV/EBITDA multiples for forestry / agriculture and waste in recent years have been 5.9x and 9.7x respectively.¹</p>	<p>For most heavy emitters, potential ACCU related corporate acquisitions offer limited overlap in core business capabilities or potential synergies.</p> <p>In addition, a material number of organisations that generate ACCUs are difficult to acquire as they are not-for-profit, indigenous corporations or prescribed body corporates.</p>
Broader Green Target Acquisitions (Non ACCU Related)	<p>Involves the acquisition of non-ACCU producing targets that will benefit from transition.</p> <p>Targets have historically been green minerals companies or renewable energy providers.</p>	<p>Over the last five years there have been >15 acquisition of non-ACCU producing green targets of >A\$100m, by natural resources companies not traditionally focused on transition.</p> <p>Transactions are increasing in frequency.</p>	<p>Valuations vary by sector.</p> <p>Lithium: Median EV / Reserves (LCE) of A\$711 / tonne in recent years.²</p> <p>Renewable Energy: Median EV / Megawatt (MW) of 2.4x in recent years.²</p>	<p>Acquisitions led by miners (including coal companies) have predominantly targeted green minerals.</p> <p>Acquisitions led by oil & gas companies have predominantly targeted renewables.</p>
Transition Related Greenfield Partnerships	<p>Asset level partnerships are used to support transition related projects. For example, renewables or carbon capture use and storage (CCUS).</p> <p>Historically structures were AssetCo / DevCo focused. Some recent structures have involved integrated joint ventures. Structures have evolved to address learnings from both the developer and investor-side, and to capture emerging energy storage technologies.</p>	<p>Significant asset level partnerships are not as common as M&A transactions, but have increased in frequency over the past 7–8 years.</p>	<p>Case by case.</p>	<p>In Australia, this structure has historically been used by integrated energy or renewable companies seeking a funding partner.</p> <p>Offshore, similar structures have been used by natural resources and coal companies.</p>

Heavy emitting transactions (including fossil fuel specific transactions) remain common.

Transactions involving heavy emitting assets have unique requirements for success.

Transaction Type	Characteristics	Frequency / Availability	Valuation	Other Considerations
Risk Related Fossil Fuel Divestments	<p>Involves the divestment of non-core heavy emitting businesses to reduce future emissions related risks.</p> <p>Usually involves the sale of oil & gas, thermal coal or met coal activities.</p>	<p>Over the last 5 years there have been c.15 risk transfer motivated divestments of >A\$100m.</p> <p>These transactions are reducing in frequency.</p>	<p>Valuation multiples applicable to the coal and oil & gas sectors are impacted by a range of factors including asset life, cost of production, margins and cost of capital.</p>	<p>Transactions have all involved a seller that has a diversified business, enabling the relevant heavy emitting asset to be identified as non-core.</p>
Other Fossil Fuel Transactions (Non Risk Related)	<p>Involves transactions relating to heavy emitting oil and gas, thermal coal and met coal assets driven by attractive industry dynamics.</p>	<p>Over the last 5 years there have been c.30 non risk related Australian oil and gas, thermal coal and met coal transactions of >A\$100m.</p>	<p>All of these factors can be impacted by emissions considerations.</p> <p>Median transaction multiples:¹</p> <p>Oil and Gas: EV / boe of A\$14.40.²</p> <p>Thermal and met coal: EV / LTM EBITDA of 4.3x.</p>	<p>Transactions relating to heavy emitting thermal coal, met coal and oil and gas assets, continue to be driven by relatively attractive industry dynamics and benefits from consolidation.</p>

Requirements for success:

- **Valuation:** The consideration of emissions in the valuation process is essential. Key areas of focus should include: 1) the cost of achieving safeguard requirements; 2) the cost of an achieving voluntary emissions commitments; and 3) an assessment of scope 1, 2, and 3 emissions on asset / facility longevity or product price.
- **Shareholder Support:** Shareholder support for management, or a transaction, is not guaranteed simply because a company already operates within a heavy emitting sector. For publicly listed companies, successful transactions will increasingly require both strong ESG commitment from the acquirer and exceptional engagement with investors, both during the lead up to a transaction and on an ongoing basis.
- **Financing Support:** The pool of potential banks or other entities that will finance heavy emitters, particularly in fossil fuel linked sectors, is diminishing. Securing financing requires increasingly extensive preparation and campaigning.
- **Seller Requirements:** The ESG and emissions credentials of potential buyers are becoming ever more closely scrutinised by sellers when shortlisting acquirers.

A photograph of a residential street at sunset. The scene is dominated by a warm, golden-orange glow from the setting sun. In the foreground, a paved path leads through a narrow alleyway between houses. The houses have light-colored walls and blue corrugated metal roofs. A large green tree is on the left, and a stone wall with blue flowers is in the lower left. In the background, several tall industrial cranes are silhouetted against the bright sky. The overall mood is peaceful yet contrasts residential life with industrial activity.

**Section I:
Introduction to the
Safeguard Mechanism**

The Climate Change Act 2022 sets legislated targets to reduce emissions by at least 43%, from 2005 levels, by 2030 and to achieve net zero by 2050.

The Safeguard Mechanism will be a key enabler of the Climate Change Act 2022. On 5 May 2023, the Federal Government registered legislative rules to reform the Safeguard Mechanism. These have taken effect in July 2023.

Background

The Safeguard Mechanism is administered through the National Greenhouse and Energy Reporting Act 2007 (NGER Act) and overseen by the Clean Energy Regulator (CER). The Safeguard Mechanism is the Australian Government's policy for reducing emissions at Australia's largest industrial facilities. It sets legislative limits known as baselines on GhG emissions. The Safeguard Mechanism was introduced in July 2016 but had been criticised for failing to incentivise emissions reductions, owing to high baselines that offered 'headroom' and allowed emissions to grow.¹

Covered Facilities

The Safeguard Mechanism applies to c.220 facilities that have direct Scope 1 GhG emissions of at least 100,000 tonnes of carbon dioxide equivalent (CO₂-e) per year (Covered Facilities).² These facilities produce around 28% of Australia's GhG emissions and include mining, oil and gas production, manufacturing, transport and waste operations. The Federal Government has estimated that the Safeguard Mechanism reforms will reduce emissions by 205 million tonnes of carbon dioxide equivalent (tCO₂-e) by 2030 relative to projected emissions in the absence of the reforms.

Baseline Determination

Each Covered Facility is assigned an emissions baseline. Historically emissions baseline calculations allowed headroom and could be calculated using a number of methods, several of which are no longer available under the recent reforms. Baselines are in the process of being adjusted to largely remove headroom.

Existing Covered Facilities are now transitioning from the use of site-specific emissions intensity values to the use of industry average emissions intensity values. In addition, in the future, baselines will be calculated using a production-adjusted framework.

New Covered Facility baselines will be set using international best practice industry benchmarks adapted for an Australian environment, as well as a production adjusted framework. New Covered Facility baseline calculations will also apply to existing facilities if they begin producing new products.

Baseline Reductions

Historically, baselines largely acted as a stable reference point against which net-emissions reductions could be assessed. From 1 July 2023, most Covered Facilities will be subject to a 4.9% p.a. baseline decline rate to 2030.³ The decline rate will be linear and cumulative, increasing each year so that within the first five years net-emissions reductions will exceed 20%.

Where a Covered Facility's baseline becomes lower than its emissions, it will be required to reduce its emissions or offset any residual emissions through the purchase and surrender of carbon credits.

Emissions-Intensive Trade-Exposed (EITE) facilities may apply for discounted baseline reduction rates, with annual reductions potentially as low as 2% in limited circumstances. In addition, funding from the Federal Government's A\$1.9bn Power the Regions Fund will also be made available to select EITE facilities. This fund will operate to provide a range of funding opportunities to support on-site decarbonisation.

Covered Facilities will be able to apply for a multi-year monitoring period (MYMP) of up to five years, ending no later than 30 June 2030, where they can set out a credible plan to reduce emissions with a high level of certainty. The MYMP option will enable relevant Covered Facilities to 'average out' a baseline exceedance in early years with below-baseline emissions in subsequent years, after an agreed emissions reduction project is implemented. The aim is to support investment in emissions reduction technology and processes that take time to implement.

The Government will issue SMCs to Covered Facilities that reduce their operational emissions below their baseline.

Covered Facilities will be able to bank, borrow or buy SMCs to reduce emissions where they exceed baselines. In addition, facilities that exceed their baselines will continue to be able to reduce their emissions by purchasing and surrendering ACCUs.

SMCs

The Government will introduce a new form of tradeable credit known as SMC to incentivise Covered Facilities to lower their operational emissions. SMCs will be issued to facilities that reduce their operational emissions below their baseline.^{1,2} Each SMC will represent one tCO₂-e reduced below the baseline.

It will be possible for Covered Facilities to buy, sell, lend or borrow SMCs. Covered Facilities will also be able to bank SMCs for future use or surrender them for the purpose of meeting baseline targets. However, SMCs will not be eligible for use by market participants beyond Covered Facilities.

'Banking' and 'borrowing' reforms will be introduced, allowing facilities to hold, surrender or trade issued SMCs up to 2030 and to borrow up to 10% of their baseline each year, to be repaid the following year subject to interest at 2% to July 2026 and 10% thereafter. SMCs will not be issued to a Covered Facility during a borrowing year.

ACCUs

Covered Facilities that exceed their baselines will continue to be able to reduce their emissions by purchasing and surrendering ACCUs or generating ACCUs through approved projects, as an alternative to reducing on-site emissions. However, it can take more than one year for a project to reach the point of being able to generate ACCUs. Emissions Reduction Fund (ERF) approved projects are credited with one ACCU for each tCO₂-e stored or avoided.

There will be no limit to how many ACCUs a Covered Facility can surrender, but where a Covered Facility surrenders ACCUs equal to more than 30% of its baseline, it will need to explain its barrier to carbon abatement and provide information about future carbon abatement opportunities.

If companies are not able to source required ACCUs in any given year, Government-held ACCUs are proposed to be made available for sale to Covered Facilities at a capped price of A\$75 per tonne, indexed at CPI plus 2% annually. Noting the volume of ACCUs in the relevant Government-held reserve will be finite, with a review of this reserve (including price) to be undertaken in FY27.

If a Covered Facility exceeds its baseline in a reporting year and does not take steps to address this, it may be fined daily for every tCO₂-e by which they exceed their baseline. As well as paying these penalties, a Covered Facility will still be required to 'make good' on its infraction by purchasing and surrendering equivalent ACCUs or SMCs. A non-compliant Covered Facility with unresolved, excess emissions may also be liable for a civil penalty.

International Units

No international carbon credits are currently eligible for Safeguard purposes. The Government may re-assess this position in the future.

Carbon Credit Delivery

The enhanced Safeguard Mechanism came into effect on 1 July 2023. Covered Facilities are required to monitor and report their emissions data accurately and transparently and to ensure this data is verified by third-party auditors.

Where a Covered Facility's emissions exceed their baseline for a given financial year, they will be required to surrender SMCs or ACCUs by 1 March of the following year.

New projects may be restricted by the Safeguard Mechanism, particularly if they are linked to fossil fuels.

A number of changes to Safeguard Mechanism legislation will impact the natural resources sector. Some market participants have estimated that there are more than 100 new projects that may not proceed due to Safeguard Mechanism reforms.¹

A hard cap or ceiling on actual or absolute (gross) emissions

The revised Safeguard Mechanism caps Australian absolute (gross) emissions at current levels of 140 MT per annum, decreasing over time. This is expected to effectively limit new coal mines and oil and gas projects in Australia.

Under revised arrangements the Minister for Climate Change and Energy is now required to test a new or expanded project's impact on the hard cap.

If the assessment finds that the project would contribute to the cap being exceeded, the Minister will have wide-ranging powers and could elect to set new project baselines at zero and ACCU allowance at zero, effectively stopping a project from proceeding.

Coal and Oil & Gas specific requirements


It is estimated that about 80% of current Safeguard Covered Facilities will fall into the overarching EITE category. However, most coal and oil & gas related Covered Facilities will not be eligible for an EITE classification and will not receive associated benefits such as access to the Powering the Regions Fund.

- Key activities that are eligible for EITE classification include: 1) petroleum refining (for many products); 2) LNG production; 3) coke oven coke production; 4) carbon black production; 5) integrated iron and steel manufacturing; and 6) coal char production.
- Activities that are not eligible for EITE classification predominantly include: 1) upstream exploration, extraction, and production or processing of stabilised crude petroleum oil; 2) natural gas extraction and production; and 3) mining and extraction of coal.

All new gas fields for LNG exports will need to utilise technology and offsets to achieve zero net reservoir emissions from day one. This will create a significant financial barrier to some projects. Relevant projects will need to either fully offset, or capture and permanently store, all reservoir carbon emissions. In addition, other Scope 1 emissions will need to be reduced at a rate of 4.9% per year to 2030 and to net-zero by 2050. Key sources of these emissions include the use of fuel, offshore flaring, the use of fuel gas at offshore facilities and processing activities.

Shale gas projects within the Beetaloo Basin will be required to have net-zero Scope 1 emissions from the outset.

Finally, many of the grants that supported fossil fuel projects in the past have been removed.

A large, dark, billowing plume of smoke or ash rises from a fire in a field. The smoke is thick and dark brown, with a lighter, yellowish-brown base near the fire. The fire itself is visible as a bright orange and yellow line along the horizon. The background is a pale, overcast sky.

**Section II:
ACCU
Considerations**

There are nine methods that may currently be utilised to generate ACCUs.

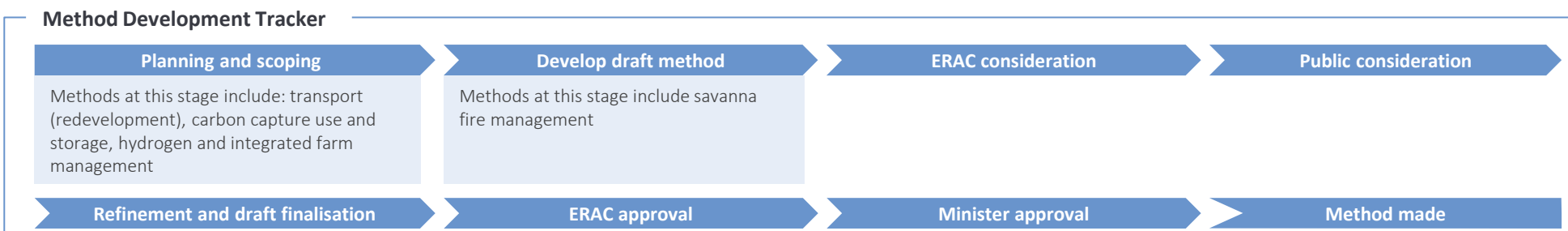
The top three methods to produce ACCUs generate over 90% of new supply. These methods are 1) vegetation (e.g. reforestation, afforestation, and forest management); 2) waste (e.g. waste-to-energy); and 3) savanna burning (i.e. to reduce emissions from fires).

Methods through which ACCUs are issued (number in millions)		FY21	FY22
Vegetation	<ul style="list-style-type: none"> Activities related to forest management and carbon sequestration Includes reforestation, afforestation, and forest management practices that improve carbon storage in vegetation & soil¹ 	9.34	9.81
Waste	<ul style="list-style-type: none"> Addresses emissions reduction opportunities in the waste management sector Includes projects that reduce emissions from landfill gas, increase recycling rates, or improve waste treatment and disposal practices 	4.95	5.52
Savanna Burning	<ul style="list-style-type: none"> Focuses on reducing greenhouse gas emissions from savanna burning practices in northern Australia Encourages the adoption of early dry season burning techniques that minimize uncontrolled wildfires 	1.64	1.32
Agriculture	<ul style="list-style-type: none"> Encompasses various practices that aim to reduce greenhouse gas emissions from farming activities Includes projects related to soil carbon sequestration, reducing methane emissions from livestock, improving fertilisation techniques, or implementing sustainable land management practices 	0.4	0.27
Energy Efficiency	<ul style="list-style-type: none"> Focuses on improving energy efficiency in buildings, industrial processes, or equipment Encourages projects that reduce energy consumption through energy-efficient technologies, systems, or practices 	0.41	0.53
Industrial Fugitives	<ul style="list-style-type: none"> Addresses emissions from the release of potent greenhouse gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6), which are commonly used in industrial processes Promotes projects that capture and destroy these gases, preventing their release into the atmosphere 	0.27	0.24
Transport²	<ul style="list-style-type: none"> Targets activities related to land transport, such as reducing emissions from vehicles, changing fuel types, improving logistics, or encouraging the use of public transportation 	0.02	0.05
Facilities	<ul style="list-style-type: none"> Aims to reduce emissions from energy use in commercial, institutional, and residential buildings Includes projects that improve energy efficiency, including retrofitting of existing buildings, implement renewable energy systems, or adopting energy management practices 	-	-
Carbon Capture²	<ul style="list-style-type: none"> Focuses on capturing carbon dioxide emissions from large industrial sources, such as power plants or industrial facilities, and storing it permanently underground Includes projects that deploy carbon capture and storage (CCS) technologies to reduce CO2 emissions 	-	-
Total		17.03	17.74

Five new, or varied, Emissions Reduction Fund methods are currently under development.

It will take time for these methods to be approved for the generation of ACCUs.

Proposed Method	Description
Savanna Fire Management	<ul style="list-style-type: none"> The new savanna fire management method will expand the carbon pools and vegetation types for which projects can be issued credits and remove barriers while maintaining scheme integrity
Transport	<ul style="list-style-type: none"> The new transport method will reduce emissions from transport by expanding and enhancing the existing methods to increase uptake
Carbon Capture Use and Storage	<ul style="list-style-type: none"> The new carbon capture use and storage method will look at capturing carbon dioxide including in the production of industrial and building materials
Hydrogen	<ul style="list-style-type: none"> The proposed clean hydrogen method will credit abatement from displacing high emissions fuels with clean hydrogen, accounting for emissions from producing the hydrogen. The new method will involve producing and using clean hydrogen, either on-site or by injection into a gas distribution network
Integrated Farm Management	<ul style="list-style-type: none"> The expanded method will allow separate land-based activities to be combined or 'stacked' on the same property or aggregated properties. It will increase the carbon pools and activities for which individual projects may receive credits, while reducing the administrative costs



- The Minister for Climate Change and Energy sets the priorities for the development of new Emissions Reduction Fund methods. Methods are prioritised based on:
 - the potential uptake of the method, the likely volume of reduced emissions as well as ability to estimate emissions volume reductions at an acceptable cost and to a reasonable degree of certainty;
 - potential adverse impact on society, the environment or the economy; and
 - alignment to broader government priorities.

The volume of ACCUs issued every year is increasing at a slowing rate, while demand is increasing significantly.

There is no guarantee that there will be sufficient ACCUs for every Covered Facility to meet all future liabilities. SMCs have yet to be issued or traded, however, the same dynamics that drive ACCU prices are expected to influence SMC demand, supply and prices.

Supply

Safeguard Mechanism policy changes will not place a limit on the use of ACCUs by Covered Facilities to meet emissions reduction requirements.

However, the Clean Energy Regulator has commented that there is no guarantee there will be sufficient supply to meet all future liabilities with ACCUs.

Annual ACCU supply has increased by a total of 5.6 million since 2017 (an average annual increase of 1.1 million). However, the rate of annual increase has fallen in recent years, with further decreases in 2023.

While new methods will be developed, it is difficult to predict the timing or level of future additional supply.

Demand

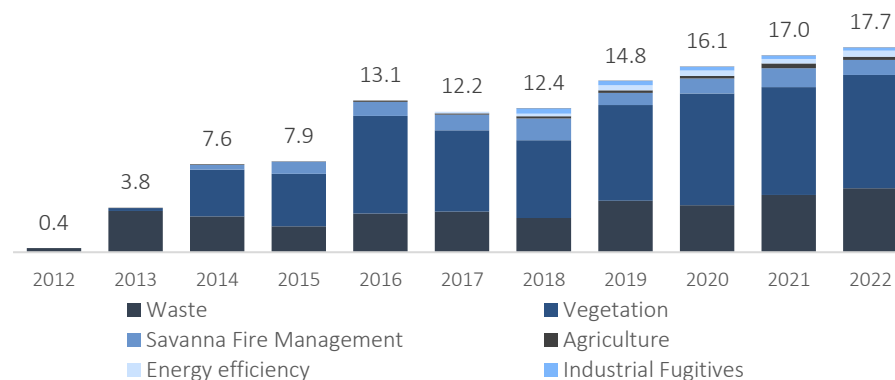
In 2022, there was a significant increase in ACCU transactions in the secondary market, with 23 million ACCUs traded, triple the volume of 2021.

The average transaction size also grew by almost 37% in 2022, from around 14,300 to 19,500 ACCUs per trade.

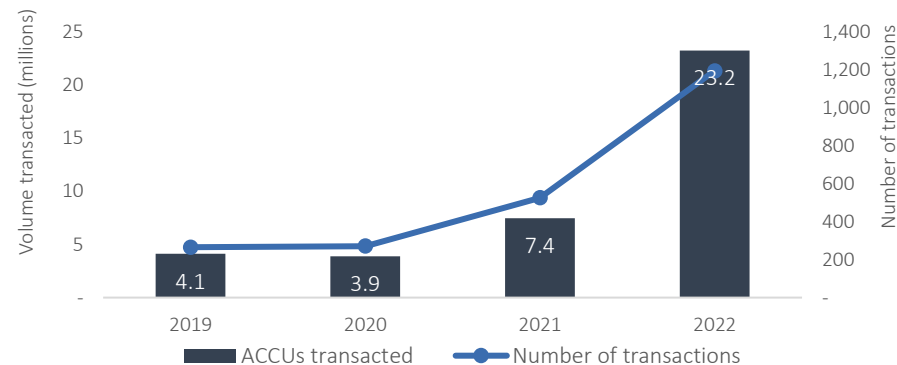
Corporates and financial intermediary activity has contributed to the increase in transactions. Some of this may reflect preparation for future requirements, as a result of changes to the Safeguard Mechanism.

Market participants also showed significant interest in forward trades in 2022, with nearly 3 million ACCUs agreed for future delivery. Of these, 1.2 million were contracted in Q4 alone. During 2022, forward trade volumes were not frequent but often involved large quantities of ACCUs.

ACCUs issued by method type (millions)¹



ACCU transactions (by volume and number)^{1,2}



Source: Australian Energy Regulator. Notes: 1. Source: Australian Energy Regulator. 2. ACCU market transactions not available pre-2019.

Many market commentators expect the price of ACCUs to increase to the ‘compliance cap’ of A\$75 per ACCU (or higher) by 2030.

Several factors will constrain the supply of ACCUs (and SMCs) during a time of growing demand.

In addition to the demand and supply dynamics previously outlined, the following factors are expected to drive ACCU (and SMC) prices.³

Increasing Adoption of Net Zero Commitments: The proportion of S&P ASX-listed top 50 companies with a net-zero strategy increased from c.30 per cent in 2019 to 90 per cent in late 2022. In addition, the number of these companies who have indicated they will use carbon credits has grown from c.15 per cent to c.65 per cent over the same period.

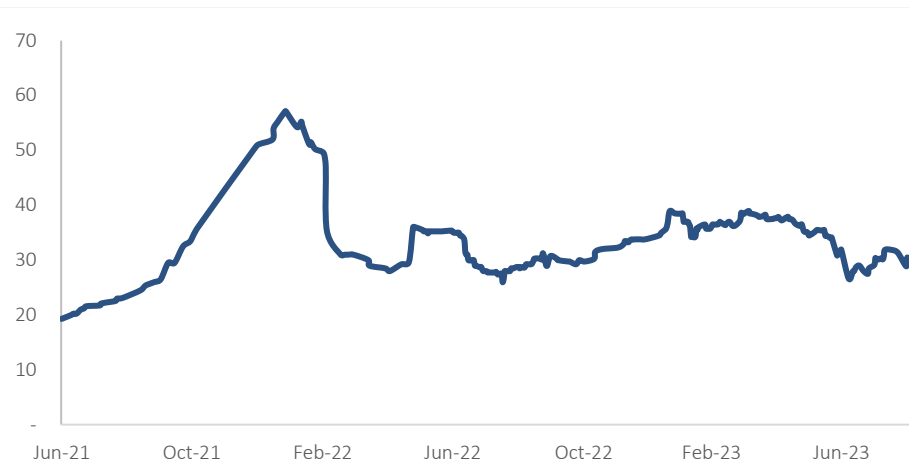
Climate Risk Reporting Requirements: Australia’s Federal Government proposed Climate Risk reporting requirements to be implemented by 2025 that will require companies to report on their climate risks in line with international standards. This is likely drive increasing participation in carbon markets and demand for ACCUs.

Relative cost of ACCUs vs Abatement: Purchasing ACCUs is usually not the preferred option to achieve emissions targets and meet regulatory requirements. However, ACCUs will at times be an attractive ‘least cost’ option. This will particularly be the case when potential in-house emissions abatement projects cost more than ACCUs to implement. The CSIRO has estimated that the cost of abatement will more than double, reaching around A\$100/tonne when abatement of more than ~160-170 Mt is required. To put this in context it is estimated that abatement of 110-120 Mt has already been achieved by Australian companies.

Reduction in Supply of ACCUs: Changes recommended in the Chubb Review, such as ceasing to adjust baselines for Landfill Gas Projects and excluding avoided deforestation projects, will reduce the supply of potential ACCUs. These changes along with the mandatory cancellation of a percentage of ACCUs will support upward pressure on prices.

Rising Prices of Large-scale Generation Certificates (LGCs): Ongoing delays to renewable energy projects have contributed to the rise in LGC prices. This is expected to continue for the medium term and drive ACCU demand and price as some companies choose to purchase ACCUs to meet their emissions reduction requirements, in place of renewable energy.

ACCUs price history (A\$ per tonne)¹



The current ACCU spot price is c.A\$31¹ but has experienced significant volatility in recent years, largely as a result of Clean Energy Regulator actions to increase ACCU supply.

In advance of 2030, volatility is expected to continue but prices for ACCUs are broadly expected to rise to the A\$75 / tonne CO₂-e ACCU ‘compliance cap’ (adjusted for 2% inflation per annum).²

Some sources are suggesting that costs of ACCUs could rise to as high as A\$100 / tonne by 2030.²

The supply of new ACCUs per year is insufficient for Covered Facilities to meet their emission reduction targets primarily through ACCUs.

If ACCUs were used as the only means by Covered Facilities to achieve a net emissions reduction of 4.9% per annum, then c.6.7m new ACCUs would be required annually at a cost of c.A\$206m to A\$505m, representing >35% of existing annual ACCU supply in the first year.¹

If all baseline headroom is removed and ACCUs are used as the only means of achieving a net emissions reduction of 4.9% per annum, the total number of new ACCU's purchased would be 6.7m annually. This would represent >35% of existing annual ACCU supply in the first year alone and would be cumulative, stacking up each year.

The incremental annual cost of 6.7m ACCUs annually would be:

- c.A\$206m (at a spot price of A\$30.63); and
- c.A\$505m (at a cap price of A\$75).

This analysis is a worst-case scenario as it assumes no reduction in reported covered emissions. Many companies already have emissions abatement plans in place or under development to achieve emissions reductions.

However, many companies undertake activities that are hard to abate and most companies in relevant sectors will require at least some ACCUs.

Top 20 corporate owners of covered facilities, ranked by Scope 1 emissions²

Company	Covered Facilities	Sector(s)	Covered Emissions	Annual Reduction	Incremental Annual Cost (A\$m)	
			FY22 t CO ₂ -e ('000)	@4.9% t CO ₂ -e ('000)	@A\$30.63 spot	@A\$75 cap
Chevron	Gorgon, Wheatstone	LNG	12,226	599	18.3	44.9
Woodside Burrup	Pluto	LNG	8,900	436	13.4	32.7
Inpex	Ichthys	LNG	6,739	330	10.1	24.8
Santos	Moomba, Curtis Island, Darwin, Ningaloo, Fairview, Varanus, Ballera, Roma	LNG, CCS, FPSO	6,439	316	9.7	23.7
Bluescope Steel	Port Kembla	Steel	6,311	309	9.5	23.2
Anglo Coal	Capcoal Mine	Coal	5,095	250	7.6	18.7
Alcoa	Pinjarra, Wagerup, Kwinana, Portland	Aluminium	4,709	231	7.1	17.3
South32	Cannington, Worsley	Silver, Lead, Zinc, Aluminium	3,672	180	5.5	13.5
QAL	Parsons Point	Aluminium	3,300	162	5.0	12.1
BM Alliance	Goonyella, Blackwater, Peak Downs	Coal	3,191	156	4.8	11.7
Qantas Airways	National Transport Facility	Aviation	3,058	150	4.6	11.2
BHP Iron Ore	Five mines in Pilbara region	Iron	2,688	132	4.0	9.9
Cement Australia	Railton, Fisherman's Landing	Cement	2,666	131	4.0	9.8
Rta Gove	Gove, Weipa, Yarwun	Aluminium	2,506	123	3.8	9.2
Onesteel	Whyalla	Steel	2,151	105	3.2	7.9
Conocophillips	APLNG facility	LNG	2,132	104	3.2	7.8
Queensland Curtis	Curtis LNG Plant	LNG	1,847	90	2.8	6.8
Adbri	Birkenhead, Cockburn, Angaston, Dongara	Cement	1,842	90	2.8	6.8
Shell	Prelude FLNG	LNG	1,841	90	2.8	6.8
Esso	Gippsland Basin	Oil & Gas	1,747	86	2.6	6.4
Top 20			83,058	4,070	124.7	305.2
Total			137,518	6,738	206.4	505.4

Source: Clean Energy Regulator, Safeguard Facility Data, FY22. Note: (1) A low end cost of A\$206m is calculated assuming a spot price of A\$30.63 per tonne (as at 2 November 2023), while a high end cost is calculated assuming a cap price of A\$75 per tonne. (2) Source: Clean Energy Regulator, Safeguard Facility Data, FY22.



Section III: Low Carbon Transactions

Corporate level acquisition targets that could provide ACCUs are limited.

The universe of material ACCU producing organisations and hence M&A targets is limited. In addition, the vast majority of ACCUs are generated by vegetation / forestry, waste or savanna burning methods, limiting overlaps in core capabilities for most heavy emitters.

Scale: Most ACCU projects are still small scale. There are currently only 20 organisations that are responsible for projects producing ACCUs worth A\$4 million, or more, annually. This limits the universe of ACCU M&A targets.

Method types: All but four of the organisations listed to the right undertake vegetation, waste or savanna burning methods. As such overlaps in core business capabilities and potential synergies with traditional natural resources operations are limited.

Target opportunities: Of the group of 20 companies to the right, three are heavy emitters subject to safeguard requirements (unlikely to sell their ACCU generating projects) and one is a prescribed body corporate businesses. This further limits the universe of ACCU M&A targets.

Largest ACCU producers and volumes delivered to the market, FY22¹

ACCU Producer ¹	Description	Method ¹	ACCU Volumes FY22 ¹	Estimated Annual Value (A\$m)	
				@A\$30.63 spot	@A\$75 cap
Terra Carbon Pty Limited	Carbon farming advisory firm (subsidiary of GreenCollar)	Vegetation / Forestry	2,441,533	74.8	183.1
LMS Energy Pty Ltd	Bioenergy company	Waste	1,982,523	60.7	148.7
ALFA (NT) Limited	Not for profit company	Savanna Burning	667,121	20.4	50.0
Usher Pastoral Company Pty Ltd	Pastoral company	Vegetation / Forestry	523,810	16.0	39.3
Veolia Recycling & Recovery Anz Pty Limited	Waste services company	Waste	446,483	13.7	33.5
LGI Limited	Listed bioenergy company	Waste	404,228	12.4	30.3
Landfill Operations Pty Ltd	Bioenergy company (subsidiary of Cleanaway)	Waste	389,477	11.9	29.2
ACCU Asset Management Pty Ltd	Asset manager, subsidiary of Carbon Conscious Investm'ts	Vegetation / Forestry	280,182	8.6	21.0
Lanin Holdings Pty Ltd, Ninal Ventures Pty Ltd	Carbon farming company	Vegetation / Forestry	259,942	8.0	19.5
Suez-ResourceCo Alternative Fuels Pty Ltd ²	Bioenergy company	Waste	258,097	7.9	19.4
Wanjina-Wunggurr (Native Title) Aboriginal Corporation	Prescribed body corporate	Savanna Burning	215,534	6.6	16.2
Tacora Agri Pty Ltd	Carbon farming company	Vegetation / Forestry	168,714	5.2	12.7
Corporate Carbon Solutions Pty Ltd	Carbon farming company	Energy Efficiency	165,694	5.1	12.4
EDL Projects (Australia) Pty Ltd	Renewables company	Industrial Fugitives	164,003	5.0	12.3
Dunkeld Pastoral Co Pty Ltd as the Trustee for Yasme Trust	Pastoral company	Savanna Burning	163,668	5.0	12.3
Weemabah Pty Ltd	Private company	Vegetation / Forestry	156,682	4.8	11.8
RTA Gove Pty Ltd	Waste services company	Energy Efficiency	143,940	4.4	10.8
Robert and Donna Chambers	Individuals	Vegetation / Forestry	142,977	4.4	10.7
Woolworths Group Limited	Publicly listed retail company	Energy Efficiency	141,552	4.3	10.6
Paniri Holdings Pty Ltd, Paniri Ventures Pty Ltd	Carbon farming company	Vegetation / Forestry	135,121	4.1	10.1
Top 20			9,599,390	283.4	720.0
All Other Project Proponents			6,909,137	294.4	518.2

Source: 1 Emissions Reduction Fund Register. 2 JV of Suez and ResourceCo, both are individually listed on the NGER list, however, the JV is not listed. 3. Corporations and reporting transfer certificate holders that met a reporting threshold under the National Greenhouse and Energy Reporting (NGER) scheme in 2021-22.

M&A transactions to secure ACCUs have been limited.

There are c.70 organisations that produce ACCUs worth >A\$1m per annum. Of this group, seven (below) have a notable M&A track-record and two (Terra Carbon and LMS) have been subject to recent acquisition. Few are rumoured to be potential future targets.

Terra Carbon / GreenCollar (vegetation) – recently acquired



- Terra Carbon is a natural resource management and environmental markets consultancy that specialises in the development and implementation of climate change adaptation and mitigation strategies. It is a division of GreenCollar Group, which was founded in 2011 by a small number of private investors.
- In July 2020, KKR acquired a 49.9% stake in GreenCollar for A\$100m.
- In December 2021, Ontario Teachers' Pension Plan acquired a 33% in GreenCollar for A\$250m. KKR's stake reduced to 33% as a result of this transaction.
- In September 2023, Ontario Teachers announced it will acquire KKR and other shareholder stakes to secure 100% control of GreenCollar for an undisclosed price.

LMS (waste) – recently acquired



- LMS is Australia's largest landfill biogas company.
- In May 2021, LMS acquired Sustainable Energy Infrastructure, a company engaged in renewable assets, biomass and biogas powered generation, as well as natural gas solutions. The terms of the deal were undisclosed.
- In September 2023, a 50% stake in LMS Energy was sold to Pacific Equity Partners for A\$272m.

Veolia / Suez (waste) – recently merged



- Veolia is a publicly listed French based water and waste management services company with a market cap of €18.5bn (A\$30.6bn).¹
- Veolia merged with Suez in October 2022, at an EV of Suez of €10.4bn (A\$16.2bn), with all Australian Suez and Veolia operations now part of the core business of Veolia.²
- Veolia is expected to be a long-term holder of its Australian operations.³

EDL (waste)



- EDL is an energy supplier engaged in development and operation of power generation projects owned by Cheung Kong Property Holdings.
- EDL Group generates carbon credits from waste to energy.
- Duet Group acquired 100% of the share capital of EDL in July 2015 for A\$1.9bn. Duet Group was subsequently acquired by a consortium of led by Cheung Kong Property Holdings, the Hong Kong listed property company in January 2017 for A\$13.1bn.

ResourceCo (waste) – rumoured as a future target



- ResourceCo engages in the recovery and re-manufacturing of primary resources. It is owned by private investors and Mercury Capital (minority stake, entry in Dec 2020).
- It has a track record of acquisition and partnership with groups such as Daicel, Cemex, Bridgestone, Boral, SUEZ (via SITA Australia), Cleanaway, Lafarge and Adelaide Brighton.
- As a PE investor Mercury Capital may ultimately exit their stake in ResourceCo.³

Woolworths (energy efficiency)



- Woolworths is a publicly listed retailer with a market cap of A\$42.6bn.¹
- Woolworth has no history of acquiring or divesting ACCU producing businesses. In contrast, they have divested 1,000+ heavy emitting fuel convenience sites over the 2016 to 2018 period for over A\$3.5bn.
- Given Woolworths focus on sustainability, and the methods it uses to produce ACCUs, they are not expected to be a seller of their ACCU producing operations in the medium term.³

Cleanaway (waste) – rumoured as a future target



- Cleanaway is a publicly listed waste management, industrial, and environment services company with a market cap of A\$5.1bn.¹
- Acquisitions completed by Cleanaway in the last five years include Suez Recycling & Recovery post-collection waste assets (2021), Global Renewables (August 2022), SKM Recycling (October 2019) and Eco Oils (July 2023).
- Cleanaway is a material producer of ACCUs but they are also a heavy emitter and require these ACCUs to meet their own Safeguard Mechanism requirements.

Value Considerations:

Where a transaction is specifically related to ACCUs as the primary source of earnings the target will be valued on the basis of these ACCUs. However, where ACCUs are acquired as part of a broader transaction then industry multiples become relevant. As a result, forestry / agriculture and waste sectors multiples are potentially relevant for ACCU acquisitions. Historically median multiples have typically been:⁵

- **Forestry and agriculture:** EV / LTM EBITDA of 5.9x
- **Waste:** EV / LTM EBITDA of 9.7x

Green target acquisitions (non-ACCU related) are becoming more common.

The universe of potential targets that will deliver material ACCUs is narrow. However, over the last five years, fossil fuel linked companies (that were not historically transition focused) have been acquiring targets that will benefit from transition.

Frequency: Over the last 5 years there have been c.17 transactions involving green targets worth >A\$100m (not associated with ACCUs) by natural resources companies not traditionally focused on transition.

Characteristics:

Acquisitions led by miners have predominantly targeted green minerals, while acquisitions led by oil & gas companies have predominantly targeted renewable energy assets.

Value Considerations: The potential economic benefits that may be captured as the economy transitions are significant. Transaction multiples have been high for good quality assets with median multiples as follows:

- Lithium: EV / Reserves (LCE) of A\$711 / t;
- Renewable Energy: EV / Megawatt (MW) of 2.4x.














	Target			Acquirer			Transaction		
	Name	Sector	Region	Name(s)	Sector(s)	Region(s)	Date	Value (A\$m) ^{1,2}	Interest sold
Green Minerals	OZ Minerals	Copper and Gold	Australia, South America, Scandinavia	BHP	Diversified Mining	Australia, Chile, Canada	Apr-23	9,985	100%
	Lynas Rare Earths	Rare Earths	Australia, Malaysia	Sojitz; JOGMEC	Conglomerate; Upstream Energy	Japan, Americas, Australia	Mar-23	200	2.7%
	Rincon lithium project	Lithium	Argentina	Rio Tinto	Diversified Mining	Australia, United Kingdom	Mar-22	1,157	100%
	Sierra Gorda	Copper	Chile	South32	Diversified Mining	Australia	Feb-22	2,566	45%
	Kobold Metals	Green Minerals Discovery / Tech	USA	Consortium of including BHP	Diversified Mining; Oil & Gas; Investors	Australia, Other	Feb-22	268	n.a.
	Ernest Henry Mining	Copper and Gold	Australia	Evolution Mining	Mineral Resources	Australia	Jan-22	1,000	70%
	Guo Ao Lithium (Moblan project)	Lithium	Canada	Sayona Mining	Diamond Explorer	Australia, Botswana, USA	Oct-21	120	60%
	Nzuri Copper	Copper	Australia, Africa	Chengtun	Diversified Mining; Financial Services	China	Mar-20	100	100%
	Arizona Mining	Green Minerals / Other Mining	Canada	South32	Iron Ore, Copper, Coal, Petroleum and Potash	Australia	Aug-18	1,581	83%
Renewable Energy	Wirsol Energy	Renewable Energy	Australia	Petronas; Gentari	Oil & Gas; Renewables	Asia, Middle East	Feb-23	1,000	100%
	Moorabool Wind Farm	Renewable Energy	Australia	Qatar Electricity & Water; Nebras Power Australia	Power & Water; Financial Services	Middle East, Australia, Brazil, Europe, Asia	Dec-22	369	49%
	Asian Renewable Energy Hub	Renewable Energy	Australia	BP	Oil & Gas; Energy	All continents	Dec-22	17,502	40.5%
	Clearway Energy	Renewable Energy	USA	TotalEnergies	Oil & Gas	All continents	Oct-22	2,259	50%
	Cobra (100 MW photovoltaic Project)	Renewable Energy	Spain	Helios Energy	Oil & Gas	Australia	May-20	254	100%
Other	WAE	Automotive / Battery Technology	UK	Fortescue Metals	Iron Ore Mining	Australia	Mar-22	310	100%
	Octopus Energy	Energy Efficiency	UK	Origin Energy, CPPIB	Energy; Utilities; Investor	Australia, Canada	Oct-21	419	6%
	Octopus Energy	Energy Efficiency	UK	Origin Energy	Energy; Utilities	Australia	Apr-20	459	20%

Transition motivated partnerships are increasingly being considered.

A material portion of coal and oil & gas companies own significant land located near generation assets or key transmission lines. Asset level partnerships are increasingly being considered to develop renewable energy projects in suitable locations.

Many coal and oil & gas companies own material land, often near generation assets or transmission lines. This creates the potential for the development of renewables on unused land in suitable locations. Asset level funding partnerships offer a potential mechanism to support development. There are many examples of integrated energy or renewables players establishing AssetCo / DevCo structures, and more recently joint ventures (JVs), to ensure ‘energy transition funding’ at the asset level in Australia.

Relevant assets may include wind farms (WFs), solar farms (SFs), battery energy storage system (BESSs) and pumped hydro (PH). These structures have evolved over time to address preferences and learnings from both the developer and investor-side, and to capture emerging energy storage technologies.

Deal	Powering Australian Renewables Fund	Grassroots Renewable Energy Platform		Bright Energy Investments	Australian Renewable Energy Trust	Energy Transition Partnership Fund	Enel Green Power Australia	Origin Energy Transition Strategy	Observations
Year	2016	2016		2018	2020	2022	2022	2022	Many precedents
Developer									Nature of participants has ranged from IPPs, global developers, to local Gentailers
Funding Party							Shortlisted parties in final DD and negotiations		Fund managers and direct investors alike are seeking ‘energy transition’ funding opportunities
Structure	AssetCo / DevCo	Original AssetCo / DevCo	Restructured JV	AssetCo / DevCo	AssetCo / DevCo	49% GIP / 51% AGL. JV across all stages of development and operation	AssetCo / DevCo Funding party takes 50-80% of AssetCo	Indicated in early 2022 AssetCo DevCo being considered	Originally all AssetCo / DevCo. Some recent structures have featured an integrated JV
Scope	WF	WF	WF + BESS + PH	WF + SF	WF + SF	WF + BESS + PH	WF + BESS + PH	WF + SF + BESS + PH	Structures can address generation, and storage



**Section IV:
Heavy Emitter
Transactions**

'Risk transfer' related fossil fuel divestments are relatively common.

Risk transfer divestments involve the sale of heavy emitting activities to reduce emissions related risks. There have been c.15 emissions related risk transfer divestment of >A\$100m over the past five years.¹ All but one transaction related to oil & gas or coal.

Frequency: Over the last five years, there have been c.15 risk transfer transactions.

Characteristics: Risk related fossil fuel divestments can partly be attributed to sellers' desire to reduce exposure to a heavy emitting business. All but one 'risk transfer' transaction has involved targets with material oil and gas, thermal coal or met coal activities. They have all involved a seller that has a diversified business, enabling the relevant heavy emitting asset to be identified as non-core.

Value Considerations: Valuation multiples applicable to the oil & gas and coal sectors are impacted by a range of factors including asset life, cost of production, margins and cost of capital. All of these can be impacted by emissions considerations. Median transaction multiples are as follows:

- **Oil and Gas:** EV / boe of A\$14.40
- **Thermal and met coal:** EV / LTM EBITDA of 4.3x

Name	Target		Seller		Acquirer		Transaction		
	Covered Facilities	Sector	Name	Sector	Name	Sector	Date	Interest Sold	Value (A\$m)
Daunia and Blackwater coal mines	Daunia and Blackwater mines	Mining	BHP Group; Mitsubishi Development	Diversified Mining	Whitehaven Coal	Mining	Oct-23 ²	100%	6,450
Sunset Power International	Vales Point Power Station	Energy, Oil and Gas	Trevor St Baker, Brian Flannery	Private Investors	Sev.en Global Investments	Financial Services	Sep-22	100%	200
BHP Mitsui Coal mines	South Walker Creek and Poitrel	Energy, Oil and Gas	Mitsui & Co	Diversified	Stanmore Resources	Mining	Aug-22	20%	380
BHP Petroleum	Petroleum assets	Energy, Oil and Gas	BHP Group	Diversified Mining	Woodside Energy Group	Energy	Aug-21	100% ³	27,125
BHP Mitsui Coal mines	South Walker Creek and Poitrel	Energy, Oil and Gas	BHP Group	Diversified Mining	Stanmore Resources	Mining	Nov-21	80%	1,822
Australia Pacific LNG	Gladstone	Energy, Oil and Gas	Origin Energy	Integrated Energy	EIG Global Energy Partners	Financial Services	Oct-21 ²	10%	2,133
Downer EDI (Open Cut Mining)	Four sites in the Bowen Basin	Mining	Downer EDI	Industrial Services	PT Bukit Makmur Mandiri Utama	Energy, Mining	Oct-21	100%	150
Moolarben Coal Operations	Moolarben (Open Cut & Underground)	Mining	Sojitz Corporation	Diversified	Yancoal Australia	Mining	Mar-20	10%	300
Origin Energy (Ironbark project)	Ironbark Project in Surat Basin	Energy, Oil and Gas	Origin Energy	Energy, Utilities	Australia Pacific LNG	Energy	Feb-19	100%	231
Gregory Crinum Coal Mine	Gregory Crinum Mine	Mining	BHP Billiton Mitsubishi Alliance	Mining	Sojitz Corporation	Other	May-18	100%	100
Bengalla Mining	Bengalla coal mine	Mining	Mitsui & Co	Diversified	New Hope Corporation	Energy, Mining	Nov-18	10%	215
Bengalla Mining	Bengalla coal mine	Mining	Wesfarmers	Diversified	New Hope Corporation	Energy, Mining	Aug-18	40%	860
Kestrel Coal	Kestrel underground coal mine	Mining	Rio Tinto	Diversified Mining	Adaro Energy Tbk, PT; EMR Capital	Energy, Mining; Financials	Mar-18	80%	2,917
Hail Creek Coal; Valeria coal project	Hail Creek coal mine; Valeria coal development	Mining	Rio Tinto	Diversified Mining	Glencore Plc	Agriculture, Energy, Mining	Mar-18	82%; 71%	2,208
Winchester South coal project	Winchester South coking coal project	Mining	Rio Tinto	Diversified Mining	Whitehaven Coal	Mining	Mar-18	75%	200

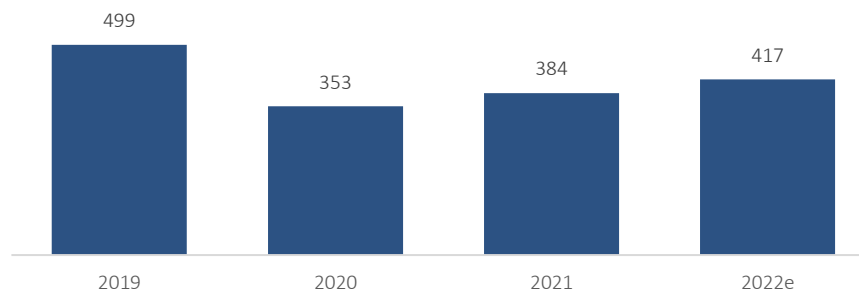
Traditional fossil fuel transactions also remain common.

In addition to risk transfer motivations, transactions relating to heavy emitting oil and gas, thermal coal and met coal assets are being driven by attractive industry dynamics. Over the last 5 years, Gresham analysis indicates there have been c.30 Australian oil and gas, thermal coal and metallurgical coal transactions of >A\$100m undertaken without risk transfer motivations.¹

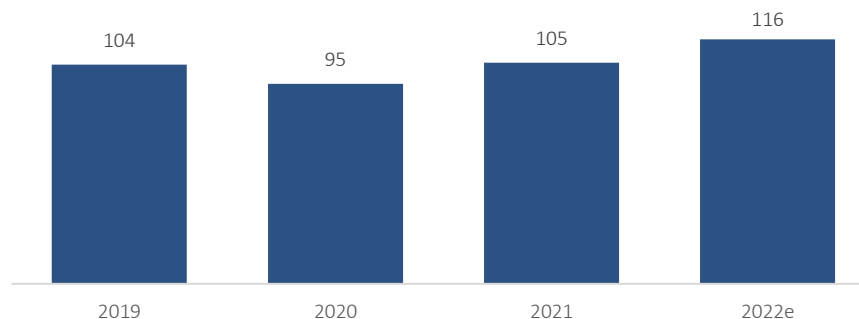
Market Observations

- The energy crisis triggered by Russia's invasion of Ukraine supported new investment in coal and oil & gas.
- Global annual investment increased during 2022 but remained below the levels seen prior to the pandemic in 2019, for both coal supply and upstream oil and gas.
 - This is despite high prices that are delivering strong profits for suppliers.
- In Australia, the revised Safeguard Mechanism will cap Australian absolute (gross) emissions at current levels of 140 MT per annum, decreasing over time. This will reduce the number of fossil fuel linked projects (new coal mines and oil and gas facilities) that become operational.
- In addition, across many regions, investment in green minerals and low carbon and clean fuels is starting to displace investment in traditional coal and oil & gas activities. This will ultimately support transition to net zero. However, over the short to medium term there are likely to be energy shortages, price increases and the value of existing oil and gas facilities are likely to rise.
- This creates an environment in which well selected targets, and well executed transactions, will deliver strong long-term value.

Change in upstream oil & natural gas investment, 2019-2022²
(US\$ billions)



Change in coal supply investment, 2019-2022²
(US\$ billions)



Sources: 1. Mergermarket, Company disclosures; and Broker reports; 2. IEA, "World Energy Investment 2022", Jun-22; McKinsey, "Playing offensive to create value in the net zero transition", April 22.

Fossil fuel related transactions have unique considerations.

Emissions valuation impacts, shareholder support, financing support and seller requirements are increasingly impacting transactions.

Emissions Valuation Considerations:

- There is evidence that valuation discounts or premiums are applied to companies within individual sectors to account for Scope 3 emissions trends. For example, coal-fired generation companies usually trade at a discount to equivalent renewable generation companies due to their sub-sector outlook.
- However, historically within the same sub-sector (e.g. coal mining) differences in Scope 1 and 2 operational emissions and Scope 3 product emissions intensity have not materially influenced value.
- Post Safeguard Mechanism reform this is expected to gradually change and in the future any acquisition involving Covered Facilities should consider and value:
 1. the cost of achieving Safeguard requirements;
 2. the cost of an achieving an acquirer's voluntary emissions commitments; and
 3. an assessment of Scope 3 emissions on facility longevity or product price (and where relevant Scope 1 and 2 emissions).

Shareholder Support:

- Shareholder support for management, or a transaction, is not guaranteed simply because a company already operates in the coal or oil & gas sector.
- Publicly listed coal and oil & gas companies are at times held to higher ESG standards than their unlisted peers by shareholders and advocacy groups. For publicly listed companies, successful transactions are expected to increasingly require both strong ESG commitment from the acquirer and exceptional engagement with investors, both during the lead up to a transaction and on an ongoing basis.

Financing Support:

- The pool of potential banks or other entities that will finance coal and oil & gas transactions is diminishing. All the big four Australian banks prohibit new thermal coal and usually avoid new oil and gas investments.¹ Although this prohibition does not extend to the acquisition of established coal and oil & gas activities, banks are becoming increasingly cautious of becoming involved in a transaction that could create negative publicity.
- It is possible to secure the support of the big four banks, or offshore banks for a transaction, but it requires significant levels of preparation and engagement.

Seller Requirements:

- The ESG and emissions credentials of potential buyers are increasingly being closely scrutinised by sellers when shortlisting potential acquirers.
- Unlisted companies, who have traditionally had limited focus on ESG are being required to provide evidence of:
 1. demonstrated understanding of sector specific ESG considerations and net zero considerations;
 2. a Board approved ESG strategy, priorities, sustainability drivers and metrics;
 3. relevant and consistent disclosures (e.g. ESG reporting); and
 4. a clear pathway supported by robust costing to reduce Scope 1 emissions in-line with or faster than Safeguard Mechanism requirements.

GRESHAM