Glossary of terms

This list of terms if to be used in conjunction with the information on the **department's website**.

Term	Definition
Climate Change	Refers to a measurable change that exists for an extended period in the state of the environment. This refers to changes that can be measured statistically such as the temperature and precipitation.
Decarbonisation	The process undertaken by states, companies and individuals to reduce and eliminate the use of carbon, often in the context of reducing carbon emissions produced by energy generation.
Economic Diversification	Describes the process of shifting an economy to containing several more varied income streams.
Electrification	The act or process of electrifying. In the context of renewable energy, this refers to decreasing the use of carbon-based sources as energy for power generation and vehicles for example.
Energy Transformation	Describes a change in the fundamental aspects of how energy is used and produced.
Global Warming	Refers to the average temperature increase near the Earth's surface.
Mitigation	Describes a set of actions undertaken to limit the impact of human impacts on the environment.
Net Zero Emissions	Refers to the attainment of a balance when emissions released to the atmosphere by humans, are equal to the amount of emissions removed by humans from the atmosphere.
Social Impacts	The non-economic effects on communities resultant from an action (or inaction), an activity or a policy.
Sustainable Development	Describes development which meets the needs of the present, without compromising the needs of future generations. This form of development is designed to balance social, economic and environmental concerns.
Transition Planning	A continuing process that incorporates long-term strategies and planning, often with a place-based approach, to increase the uptake of decarbonised industries in an economy.
Emissions	
Fugitive Emissions	Describes gases, such as CO_2 and methane, that are released into the atmosphere, particularly those emissions associated with industry.
Greenhouse Gas Emissions	Describes the class of gasses existing in Earth's atmosphere that absorbs and emits radiation. Greenhouse gases include carbon dioxide, methane and ozone.
Scope 1 Emissions	Describes emissions that are released into the atmosphere as a direct result of either an activity or a series of activities.
Scope 2 Emissions	Describes emissions that released into the atmosphere resulting from the indirect consumption of an energy commodity.

Scope 3 Emissions	Describes emissions that are indirect greenhouse gas emissions other than Scope 2 emissions that occur in the wider economy.
Renewable Technologies	
Battery	Refers to an energy storage system that through chemical action produces electricity.
Battery Packs	Are devices that provide power to an electrical system from stored electrical energy.
Battery Storage	Refers to a device that uses batteries to store energy for later use.
Bioenergy	Refers to energy that is generated through the conversion of biomass into forms of energy such as heat and energy.
Biofuels	Also known as liquid fuels, refers to fuels that are produced from biomass and includes fuels produced from sugarcane, maize and soybeans.
Biomass	Refers to renewable organic material, that is often the basis for biofuels and bioenergy, and is derived from forestry, agriculture or waste streams.
Coordinated DER Storage	Describes coordinated behind the meter battery installations often in businesses and residential properties.
Concentrated Solar Power	Describes solar power plants that concentrate solar radiation to a focal region, either transmitted or through reflection, and is then converted into energy.
Critical Minerals	Describes minerals that are essential in the manufacturing of a product. In the context of renewable energy, it describes the minerals used to develop clean energy technologies.
Distributed Energy Resource	Renewable energy systems or units that are decentralised and often describes units that are located in houses and businesses.
Distributed Photovoltaics	A form of distributed energy resource, distributed photovoltaics converts the sun's rays into electricity and refers to all grid-controlled solar that is not centrally controlled.
Electric Vehicles	Vehicles that are either wholly or partially powered by electricity.
Electrolysis	The process of passing an electric current through an electrolyte to produce a chemical change.
Energy Storage Systems	Uses several measures, such as chemical processes or pumped hydro, to store electrical energy that can be used at a later date.
Fuel Cell	A device that, through an electrochemical process, often with hydrogen and oxygen, produces electricity.
Green Hydrogen	Refers to hydrogen that is created from renewable sources without fossil fuels. A common technique to develop green hydrogen is through electrolysis to separate oxygen and hydrogen from water molecules through strong electrical currents.
Green Steel	In the context of decarbonisation, it refers to steel that is made with hydrogen, rather than coal.
Hydrogen	The most abundant element in the universe. Hydrogen, when mixed with oxygen, has the capacity to produce electricity.

Lithium-Ion Batteries	A rechargeable battery that, for an electrolyser, uses lithium ions. In renewable technologies, the batteries can be used particularly in electric vehicles
Nacelles	The top portion of a wind turbine that connects the blades with the tower.
Hydropower	Describes the electricity that is produced from the kinetic and potential energy of water.
Photovoltaic Cells	Refers a semi-conductor that is capable of converting light into electricity. Used in converting solar power.
Renewable Energy	Describes energy that derives from a natural and ecological source that is capable of being replaced and replenished.
Renewable Energy Sources	Refers to energy sources that naturally either replenish or renew themselves and are not a finite resource.
Solar Photovoltaic Power Systems	Describes solar power systems that directly generate electricity from solar energy.
Solar Power	Refers to electricity that is generated from heat and light radiated from the sub.
Solar Thermal Power Systems	Describes solar systems that heat a fluid, such as water, that generates electricity to power an engine, turbine or other contraption.
Sustainable Aviation Fuel	Renewable or lower-waste fuels that meet have the capacity to reduce the emission of CO2 in contrast to convention jet fuels.
Utility-Scale Solar	Describes utility-scale solar projects that are designed to deliver power generation onto the grid.
Utility-Scale Storage	Also known as grid-scale storage, refers to energy storage that is large-scale, often involves a large number of batteries installed together, and connected to the electricity grid.
Wind Power	Refers to electricity that is produced from the kinetic energy of wind through wind turbines.
Environmental Concepts	
Adaptation	Describes the preparation of adjusting to the environmental impacts of global warming.
Carbon Footprint	Describes the yearly production of greenhouse gasses by an entity, whether that be a company, state or individual.
Carbon Neutral	Describes the attainment of a state when carbon dioxide emissions released into the atmosphere are balanced by carbon dioxide removed over a period of time.
Carbon Sinks	Refers to a reservoir where a greenhouse gas is stored.
Circular Economy	Refers to the process of keeping materials and products in circulation for the longest period of time possible through recycling.
Climate Finance	Refers to financing that is directed towards mitigation and adaptation efforts to address climate change.

Emission Reduction Targets	Refers to a goal that is used to measure the avoidance of emissions entering the atmosphere.
End-of-Life (Mine Closures)	Refers to the final stage in a mine's life once either the mine is no longer economically viable or once production reserves are exhausted.
Energy Efficiency	Refers to the reduction of energy use, while sustaining the same activity.
Energy Targets	Describes targets to reduce energy generation from carbon-based sources and increasing the uptake from electricity sourced by renewable or lower-emission sources.
Just Transition	Akin to energy transformation, a just transition describes the process of shifting towards a lower-emissions economy while ensuring environmental sustainability, social inclusion and the limitation of economic detriments.
Physical Risk (of Climate Change)	Describes the physical effects of climate change in the environment, such as sea level rises and the increased occurrence of bushfires.
Resource Recovery	Describes the process of diverting material from landfill and re-using that material to produce new products.
Transition Risk (of Climate Change)	Noun – describes the risks that result from policy action or inaction in the transition towards a carbonised economy.
Economic Concepts	
Downstream Manufacturing	Also known as downstream processing or downstream operations, describes operations that convert materials into their finalised product.
Midstream Manufacturing	Also known as midstream processing or midstream operations, it describes those operations that occur between downstream and upstream manufacturing.
Upstream Manufacturing	Often refers to the originating processes in a supply chain, such as the extraction of materials.
Supply Chain	The chain of processes and businesses which manufacture and deliver a good.
Value Chain	Describes the value that is added to a product as it moves along with supply chain.
Minerals/Inputs	
High Purity Alumina	A white crystalline powder form of Al_2O_3 which has a high melting point, hardness and electrical insulation. HPA has a number of applications including in lithium-ion batteries.
Aluminium/Bauxite	A mineral used in solar, wind, EVs and battery storage.
Chromium	A metal with high corrosion resistance and hardness that is used in iron and steel.
Cobalt	A hard metal used in lithium-ion batteries essential for EVs and battery storage as well as in wind technology. Has present use in superalloys, steel and pigments and is often a by-product of copper mining.
Galium	A metal with a low melting point, but a high boiling point and is a semi-conductor. As a result, gallium is used in thin layer photovoltaics, LEDS and integrated circuits.

Green Ammonia	Describes ammonia that is created synthetically by combining nitrogen with hydrogen through the use of renewable technologies such as wind or solar. Green ammonia can be used as engine fuel and as a component in fertilisers.
Hafnium	A shiny, corrosion resistant metal that is used in the control rods of nuclear rods and as an alloying agent for other metals.
Indium	A white metal that forms alloys with most metals and increases strength and corrosion resistance. Indium tin oxide is used for electrically conductive purposes and is used as a semiconductor and an electrical component.
Lithium	A silvery, soft metal that forms a strong alloy and is very reactive. Has the lowest density of all known solids at room temperature. Lithium is used in batteries among other uses.
Manganese	A grey metal often alloyed in steel and aluminium and used in batteries and fertilisers.
Metallurgical Coal	Also known as coking coal, is coal that is used in steel making and other industrial processes.
Niobium	A soft metal that resists acids and is often used in micro-capacitors, to store electricity.
Rare Earth Elements	Describes a series of metallic elements, that are often found in the same ores and have similar chemical processes, of which the oxides are classed as rare earths and includes elements in the lanthanide series and sometimes yttrium and scandium. These elements are often used in magnets, energy storage systems and as superconductors.
Scandium	A metallic element that is used in in solid oxide fuel cells, electronics and lasers.
High-Purity Silica	A non-combustible white crystal that is used for semi-conductors in electronics and photovoltaics in solar panels.
Tantalum	A hard, blue-grey metal that is resistant to corrosion from acids and has high thermal and electrical conductivity is used in a number of applications such as electronic micro-capacitors.
Titanium	A low-density metal with several applications including in EVs, battery storage and wind technologies, given its uses as an alloy in steel.
Thermal Coal	Also known as steam coal, this refers to coal that is burned to generate steam for the production of electricity or heat.
Tungsten	A brittle, steel-grey metal that is used to develop wind turbine blades and solar technology, especially given its use in steel manufacturing.
Vanadium	A silver-grey metal that is used to develop solar grid batteries and as an alloy in steel.
Zirconium	A soft metal with high melting and boiling points that is used to develop solar technology and as cladding for nuclear reactor cells.
Government Plans and Policy Terms	
Regional Transformation Plan	A plan that identifies projects and activities that support decarbonisation efforts in each priority region under the REFF, which will inform the

	development of an implementation plan to allocate funding under the REFF.
Stakeholder Advisory Committee	Describes the committees, composed of key local stakeholders, in each priority region that discuss and advises on funding allocations under the REFF
Renewable Energy Zones	An area that has high-quality renewable resources that could be developed to enable greater power generation from renewable sources.
Queensland Energy and Jobs Plan	Refers to the Queensland Government's plan to build a thriving renewable energy sector in Queensland, and to meet Queensland's energy and emissions targets.
SuperGrid	Refers to the Queensland Government's plan to deliver the elements of an electricity system to supply Queenslanders with clean, reliable and affordable electricity.