



Rialtas na hÉireann
Government of Ireland

Climate Jargon Buster

An A-Z plain English guide
to climate action terms



Your A – Z Climate Jargon Buster

This A – Z plain English guide to climate jargon helps explain common climate action terms. The explanations are designed to help describe ideas and concepts rather than to give strict scientific definitions.

The Department will update the online guide and welcomes your feedback.

You can contact the Department of the Taoiseach at climateaction@taoiseach.gov.ie.

The Department of the Taoiseach has developed this guide with help from Comhairle na nÓg, Environmental Protection Agency (EPA) and the National Adult Literacy Agency (NALA).

Meet the team



Hello! We are a group of young people from the Comhairle na nÓg. Comhairle na nÓg gives children and young people, like us, the chance to be involved in the development of local services and policies. We are delighted to have been involved in this project from the start. We helped choose the terms that needed to be explained, and worked with the Department of the Taoiseach to make sure the explanations were understandable. We also inputted into the design of this website. We hope you enjoy using it as much as we enjoyed helping with it!



The Environmental Protection Agency helped the Department of the Taoiseach ensure that the explanations were scientifically accurate.



The National Adult Literacy Agency worked with the Department of the Taoiseach to ensure that the website and terms were written and presented in plain English. Both the website and terms have been awarded the NALA Plain English Mark.



Term	Explanation
A	
Adaptation	Change (adapt) in response to the current or future impacts of climate change. Example: Improving flood protection and defence systems. You can read more about climate adaptation in Ireland at www.climateireland.ie
Afforestation	Planting new forests on lands that didn't have any in recent decades.
B	
Biodegradable	Something that can be broken down by bacteria and micro-organisms into materials that are not harmful to the environment. Example: Food or plant waste, paper.
Biodiversity	This refers to the variety of plant and animal life in an area and how they interact within habitats and ecosystems (like lakes and native forests).
Bio-economy	This refers to those parts of the economy that use renewable biological resources from land and sea – such as crops, forests, fish, animals and micro-organisms – to produce food, materials and energy. Example: converting bi-products from dairy farming processing into lactic acid that we can use to make biodegradable plastic and biofertilisers.
Biofuels	These are fuels generally in liquid form made from plants or agricultural or biological waste. Example: Bioethanol comes from maize and sugarcane. We use bioethanol in engines of petrol cars.
Biogenic Methane Emissions	Biogenic methane is methane produced and released from living organisms like plants and animals. Methane significantly contributes to global warming (see definition of methane). Examples of where this gas comes from: cows' stomachs and decaying vegetation.
Biomass	This is plant or animal material like wood and food waste. It can be used as a source of fuel. Example: Wood pellets are a biomass that you can use to heat a home.



Term	Explanation
Biomethane	This is a naturally occurring gas that has been processed and can be used as a source of renewable energy. It is produced through matter like animal and plant material.
Blue hydrogen	This is hydrogen produced from natural gas with carbon capture and storage. Hydrogen can be used as a fuel for transport, industry and heat.
Building Energy Rating (BER)	<p>BER stands for Building Energy Rating. A BER certificate shows you the energy performance of your home. It is a good indicator of how much you will spend on energy (like heat and light) and how much carbon you will produce to heat your home to a comfortable level.</p> <p>The BER rating goes from A to G. A-rated homes are the most energy efficient, comfortable and typically have the lowest energy bills. G-rated homes are the least energy efficient and require a lot of energy to heat the home.</p> <p>You can find out more about BER at www.seai.ie/home-energy/building-energy-rating-ber</p>
Built environment	This refers to structures we build and their surrounding environment such as bridges, roads and paths.
C	
Cap and trade system	This system aims to reduce greenhouse gas emissions. It works by limiting (capping) how much greenhouse gases that groups of companies can use. It also allows companies to buy and sell (trade) carbon credits (see definition of carbon credits).
	Example: EU Emissions Trading System (EU ETS) works on a cap and trade basis.
Carbon budgets	<p>A carbon budget is how some countries set a limit in policy or law on how much greenhouse gases they emit over a fixed time.</p> <p>In Ireland, the carbon budget will be set by law. The Climate Action and Low Carbon Development (Amendment) Bill sets out how carbon budgets will be set in Ireland.</p> <p>Government will put the carbon budget in place with advice from the Climate Change Advisory Council.</p> <p>A series of carbon budgets will be made and each one covers five years.</p>



Term	Explanation
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Carbon credits

Some EU and International agreements put in place ways in which carbon credits can be used to help meet emissions targets.

There are two main types of carbon credits: regulated emission allowances and voluntary emission reduction credits.

A regulated emission allowance is a permit which a company or facility must buy or trade in order to release one tonne of carbon dioxide, or the equivalent of some other greenhouse gas. Because allowances cost money and can be traded, there is an incentive to become more efficient and innovative to avoid having to buy allowances.

A voluntary emission reduction credit is a certificate showing that a company or community has taken action and has proved they have achieved a real reduction in emissions or have successfully removed carbon dioxide from the air, for example, by rewetting a drained bog. The certificate can be sold to support emissions reductions or carbon dioxide removal.

Carbon dioxide (CO₂)

Carbon dioxide is a powerful greenhouse gas. It is naturally part of the air we breathe. However, human activities like burning of fossil fuels and deforestation have led to an increase in CO₂ in the air that contributes to climate change.

Carbon emissions

Carbon emissions are created when particular gases are released into the air from activities like burning fossil fuels for energy. It includes gases like carbon dioxide and methane. This is because they both contain carbon.

‘Carbon emissions’ is sometimes used as a shorthand to describe all greenhouse gases.

Carbon footprint

Carbon footprint measures the carbon emissions linked to a particular activity or product. It includes emissions involved in all stages of making and using a product, or carrying out an activity.

The lower the carbon footprint the less that a product or activity contributes to climate change.

Examples: Walking and cycling create a much smaller carbon footprint than driving.



Term	Explanation
Carbon leakage	<p>This is when one country's carbon emissions are lowered and it results in another country's emissions being increased. This can happen when production moves from one country to another. The overall result is that the world as a whole does not experience a decrease in emissions.</p> <p>Example: Fertiliser manufacturing in Ireland led to reduced Irish emissions, but fertiliser manufacture continued elsewhere.</p>
Carbon neutral	<p>This means that the amount of greenhouse gas released into the air equals the amount removed from the air.</p> <p>Example: Increasing our use of renewable energy and carbon sinks will help us become carbon neutral.</p>
Carbon sequestration and storage	<p>This involves removing carbon emissions from the air and storing it securely for a long period.</p> <p>Examples: Carbon dioxide can be captured and stored by forests and oceans. (See 'Carbon Sinks')</p>
Carbon sinks	<p>A carbon sink is a natural or artificial reservoir like plants, peat bogs or oceans. It soaks up and stores greenhouse gases like carbon dioxide. This process removes greenhouse gas from the air and it keeps our temperatures from getting too high.</p>
Carbon tax	<p>In Ireland, this means a charge on fossil fuels, based on their carbon content. It aims to encourage us to reduce the use of fossil fuels, and, therefore, reduce our emissions.</p> <p>Examples: we pay carbon tax on oil, petrol and diesel.</p>
Circular economy	<p>This type of economy uses a more efficient and low-carbon approach. It makes sure that we reduce and reuse products and materials so that less waste is produced.</p> <p>Example: Upgrading and repairing household goods instead of replacing them.</p> <p>You can find out more about the Circular Economy at http://www.gov.ie/circulareconomy/</p>
Climate	<p>Climate means the average weather conditions in a region over a long time – usually 30 years or more. The big difference between climate and weather is the length of time involved. Weather can change from minute-to-minute, day-to-day, but climate is the average of weather over a longer time in a specific area.</p>



Term	Explanation
Climate Action Delivery Board	<p>This is a group of secretaries general of government departments who are responsible for 'actions' under the Climate Action Plan. It monitors how well these actions are being achieved and it reports on progress to Government.</p> <p>These progress reports are published every three months, and you can read them online at: www.gov.ie/en/publication/55fde-climate-action-important-publications/</p>
Climate Action Fund	<p>The Government Climate Action Fund supports initiatives and projects that help to achieve Ireland's climate and energy targets in a cost-effective way. The fund supports projects that without it would not happen. It encourages innovative projects to develop climate change solutions.</p> <p>You can find out more about the Climate Action Fund at www.gov.ie/en/publication/de5d3-climate-action-fund/</p>
Climate Action and Low Carbon Development (Amendment) Bill	<p>This is a new law being developed that sets a target for Ireland to be a climate resilient and climate neutral economy by 2050. We call this the 'national 2050 climate objective'. It requires Government to set a series of carbon budgets and gives a new role to the Climate Change Advisory Council to help develop these budgets.</p> <p>It also sets out the processes for how we develop our climate plans and policies to help us meet our climate objectives. For example, the Climate Action Plan must be updated each year.</p> <p>(See carbon budget)</p> <p>You can read more about this new law at www.gov.ie/en/publication/984d2-climate-action-and-low-carbon-development-amendment-bill-2020/</p>
Climate Action Plan	<p>This is Government's annual plan that sets out how we will meet our climate commitments and reach EU and international climate targets. The Climate Action Plan 2019 sets out 183 actions and more than 600 individual measures aimed at tackling climate change. Reports are published each quarter, and they show the progress we are making.</p> <p>The next Climate Action Plan will be published later in 2021, and it will take into account Ireland's new and more ambitious climate targets.</p> <p>You can read more about the Climate Action Plan and Progress Reports at www.gov.ie/climateaction</p>
Climate change	<p>This is a change in long-term weather patterns due to natural forces, or human activity, or both.</p>



Term	Explanation
Climate Change Advisory Council	<p>This independent advisory body assesses and advises on how Ireland is doing in terms of becoming a low-carbon and environmentally sustainable economy by 2050.</p> <p>You can find out more about the Council at www.climatecouncil.ie</p>
Climate neutral economy	<p>In a climate neutral economy, overall, our activities don't have a negative impact on the climate. For example, across the whole economy, the total greenhouse gases removed from the atmosphere is the same or greater than the total greenhouse gases emitted.</p>
Climate resilience	<p>The ability to cope with the negative impacts of climate change in a way that reduces these impacts on people and the environment and takes advantage of any positive opportunities.</p> <p>Examples: Preparing our buildings for more frequent heatwaves by installing better ventilation systems.</p>

D

Decarbonisation	<p>This happens when we stop using fossil fuels throughout the whole country.</p> <p>Example: Using renewable energy to heat your water at home instead of oil.</p>
District heating	<p>This type of heating delivers centrally produced heat to buildings in a specific area. It uses an underground network of insulated pipes. It can reduce heating costs for customers and is better for the environment than using individual sources of fossil fuels like coal and oil for heating.</p>

E

Effort Sharing Decision	<p>This is an EU law, which sets national emission targets for 2020 expressed as percentage changes from 2005 levels. Different targets apply for Member States and Ireland's emissions target by 2020 is 20%.</p> <p>(Targets for 2021 to 2030 are set by the Effort Sharing Regulation.)</p> <p>You can find out more at www.ec.europa.eu/clima/policies/effort_en</p>
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Term	Explanation
Effort Sharing Legislation	<p>This is a series of EU laws which sets binding yearly greenhouse gas emission targets for Member States. They cover 2013-2020 and 2021-2030. These national yearly targets relate to sectors not included in the EU Emissions Trading System (EU ETS) like transport, agriculture, buildings and waste. The combined efforts of all Member States to reduce emissions is the basis of these laws.</p> <p>The laws include the Effort Sharing Decision (2013-2020) and the Effort Sharing Regulation (2021-2030).</p>
Effort Sharing Regulation	<p>This is an EU law which sets binding yearly emission reductions for Member States from 2021 to 2030. It is part of the EU's implementation of the Paris Agreement. (See 'Paris Agreement')</p> <p>Ireland must reduce its emissions not under the EU Emissions Trading System by almost a third (30%) on 2005 levels. It must do this by 2030. These emissions include greenhouse gas emissions from homes, cars, small businesses and agriculture.</p> <p>You can find out more at www.ec.europa.eu/clima/policies/effort_en</p>
Electricity interconnector	<p>This is a high voltage infrastructure (power lines, cables and stations) that links Ireland's electricity grid with the electricity grid in other countries.</p> <p>Example: Ireland is working to develop an electrical link between it and France. This link is called the Celtic Interconnector.</p>
Electric vehicle	<p>This is a vehicle powered fully or mostly by electricity and not by fossil fuels like petrol or diesel.</p>
Emissions	<p>These are gases or particles released into the air that can contribute to global warming or poor air quality.</p> <p>Example: cars release dangerous gases (emissions) such as carbon monoxide into our air.</p>
Emissions projections	<p>These are the expected estimates (projections) of the amount of greenhouse gases released every year up to 2040. The EPA prepares the official emissions projections for Ireland. The projections are based on current and planned Government policy, and they help us see how we are doing in terms of reducing greenhouse gas emissions.</p> <p>You can find the latest projections on www.epa.ie/pubs/reports/air/airemissions/ghgprojections2019-2040/</p>



Term	Explanation
Energy	<p>Energy is generally described as ‘the ability to do work’. Forms of energy we use every day include:</p> <ul style="list-style-type: none"> • moving an object • heating a building • lighting a room. <p>Common forms of energy include:</p> <ul style="list-style-type: none"> • thermal • chemical • electrical • mechanical. <p>Energy can be transferred from one form to another.</p> <p>Example: the mechanical energy in wind can be converted into electrical energy which we can use to light and heat our homes.</p>
Energy efficiency	<p>It is energy efficient when we use less energy to achieve the same result.</p> <p>Example: insulating a house means that less energy is needed to heat a house to the required level. Replacing an old boiler with a more efficient version means that less fuel is used to provide the amount of heat you need.</p> <p>Example: we can improve energy efficiency by making changes to how we do things like turning off lights and electronics when we are not using them.</p> <p>You can find out more about energy efficiency in your home at www.seai.ie/home-energy/</p>
Environmental Protection Agency (EPA)	<p>The Environmental Protection Agency is an independent state agency that is responsible for a wide range of functions to protect the environment.</p> <p>You can find out more about the work of the EPA at www.epa.ie</p>
European Green Deal (2019)	<p>This plan is a roadmap for making the EU’s economy environmentally sustainable. It outlines the actions and targets needed to make Europe the first climate-neutral continent by 2050.</p> <p>The Green Deal was published by the EU Commission in December 2019.</p> <p>You can find out more about the European Green Deal at www.ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en</p>



Term	Explanation
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EU Emissions Trading System (ETS)

This is a European system for trading greenhouse gas emission allowances. It is part of the European Union climate action policies. It works by putting a limit, which is lowered over time, on the total greenhouse gases that can be emitted by:

- airlines
- power stations, and
- other large scale industrial activities.

These are known as installations and there are about 100 installations coming under the EU Emissions Trading System in Ireland.

Under the system, the installations they receive or buy emission allowances. They can trade these with other installations as needed. Each emissions allowance is for one tonne of CO₂ equivalent.

Each year, an installation must have enough allowances to cover all of its emissions, or otherwise it is fined.

F

F-gases or fluorinated gases

F-gases are man-made greenhouse gases used in air-conditioner systems, foams and other products. Their global warming effect is thousands of times greater than carbon dioxide (CO₂).

Fossil fuels

Fuels – such as coal, gas, peat and oil – that are formed in the ground over many thousands or millions of years from dead plants and animals and are used up once they are burned for energy.

Fracking

A method used to extract oil or gas from rocks and elsewhere. It involves injecting liquid at high pressure into underground rocks, boreholes, and so on, to force open existing cracks and extract oil or gas.

G

Global warming potential (GWP)

A measure of how much heat a greenhouse gas traps in the atmosphere (called 'radiative forcing') over certain time periods. Governments have agreed to use this measure to add up the impact of emissions of different gases and how they contribute to global warming.



Term	Explanation
Green economy	A green economy is low-carbon, resource efficient and socially inclusive.
Greenhouse Gas Emissions/ GHGs	Gases that trap heat from the Earth's surface causing warming in the lower atmosphere and slowing down loss of energy from Earth. The major greenhouse gases that cause climate change are carbon dioxide, methane and nitrous oxide.
Green hydrogen	Green hydrogen is hydrogen produced from renewable energy sources. Hydrogen can be used as a fuel for transport, industry and heat.

H

Heat pumps	Heat pumps are mainly electrical devices which convert available heat for use in homes, offices and other suitable buildings. As they use renewable heat sources, they are more environmentally friendly than fossil fuel heating. Different types of heat pump systems draw heat from different sources including: <ul style="list-style-type: none"> • air • water • ground.
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I

Intergovernmental Panel on Climate Change (IPCC)	This international body works with governments, or nations, or both, to assess the science of climate change. It is run by the United Nations and is made up of scientists nominated by each Government.
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You can find more information on the IPCC at www.ipcc.ch

L

Liquefied Natural Gas/ LNG	Natural gas that has been cooled to a liquid (so smaller in volume) to allow it to be shipped and stored. Natural gas is mainly made up of methane.
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Term	Explanation
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LULUCF /
land use,
land-use change
and forestry

This stands for Land Use, Land-use Change and Forestry. It is a sector or category used to monitor and report emissions. Depending on how the land is used, it can be:

- a source of emissions
- or**
- a carbon sink.

LULUCF is regulated under EU law. Governments are also required to report to the United Nations on LULUCF emissions and removal of greenhouse gases caused by different land uses and land management practices. This includes:

- deforestation
- afforestation
- drainage of peatlands
- tillage and land used for grazing animals.

M

Methane/CH₄

This powerful greenhouse gas comes from sources like agriculture, fossil fuels and waste. It can be used as a fuel. For example, natural gas is mostly methane. It is the second most significant contributor to greenhouse gas emissions in Ireland.

MTCO₂EQ or
Mt CO₂eq.

This is the abbreviation of Million Tonnes of carbon dioxide equivalent. One tonne is equal to 1,000 kilograms.

This unit allows us to compare the potential warming impact of an emission of:

- one greenhouse gas (like nitrous oxide)
- to**
- an emission of the same amount of carbon dioxide.

Example: The global warming potential for nitrous oxide over 100 years is 298. This means that:

- emissions of one million tonnes of nitrous oxide
- is equivalent to**
- emissions of 298 million tonnes of carbon dioxide (298 Mt CO₂eq).



Term	Explanation
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N

National Energy and Climate Plan

This Government plan outlines how we plan to address things like:

- energy efficiency
- renewable energy
- greenhouse gas emissions
- greenhouse gas reductions.

The current plan covers the period from 2021-2030. All EU Member States prepare one of these Plans, and they are sent to the European Commission to help manage Europe's 2030 energy and climate targets.

Net zero emissions

This refers to achieving an overall balance between greenhouse gas emissions produced by human activity and greenhouse gas emissions taken out of the atmosphere.

NZEB
Nearly Zero Energy Buildings

A building that has a very high energy performance. This means they need a very low amount of energy, fuelled mainly by renewable energy sources, in these houses or nearby. NZEB homes will be 70% more energy efficient and emit 70% less carbon dioxide than those built under previous building rules.

Example: New homes must be Nearly Zero Energy Buildings (NZEB) and typically have an "A2" Building Energy Rating (BER). These houses have high levels of insulation. They have mechanical ventilation systems and renewable heating systems or solar panels.

You can find out more information at www.gov.ie/en/publication/39fe4-energy-performance-of-buildings/

O

Offshore renewable energy

This type of energy comes from renewable ocean and coastal resources like waves and wind. Technology converts the movement of the air or water into electricity.



Term	Explanation
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P

Paris Agreement This legally binding climate change agreement was adopted in Paris, France, in December 2015. It sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2°C and trying to limit it to 1.5°C. It also aims to strengthen countries’ ability to deal with the impacts of climate change and support them in their efforts.

Ireland signed up to the Paris Agreement in 2016.

You can find out more about the Paris Agreement at www.unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

R

Renewable Electricity Support Scheme (RESS) This Government scheme provides financial support to renewable electricity projects in Ireland to help us achieve our renewable electricity goals. It also aims to increase community participation in, and ownership of, renewable electricity projects. It aims to make sure electricity consumers get value for money and to improve security of our electricity supply.

You can find out more about RESS at www.gov.ie/en/publication/36d8d2-renewable-electricity-support-scheme/

Renewable energy Renewable energy comes from renewable resources like:

- wind energy
- solar energy, or
- biomass.

These resources can regenerate naturally and we can use them repeatedly without reducing their supply.

Retrofitting (energy retrofitting) In relation to buildings, energy retrofitting is anything done to improve the energy efficiency of an existing building. This usually includes upgrading the roof and wall insulation to help keep the heat in, and installing renewable energy systems like heat pumps.

Examples: improving wall and roof insulation, and upgrading the heating and hot water system to systems using renewable energy like solar panels and heat pumps.

You can find more information about this on the Sustainable Energy Authority of Ireland (SEAI) website at www.seai.ie



Term	Explanation
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S

Sectoral Adaptation Plans

These plans are prepared by government departments for sectors like agriculture, transport, and health to help ensure we are prepared for the impacts of climate change.

Example: The Biodiversity Climate Change Sectoral Adaptation Plan identifies the risks of climate change for biodiversity in Ireland and how the sector can prepare.

You can read the Sectoral Adaptation Plans at www.gov.ie/en/collection/51df3-sectoral-adaptation-planning/

Smoky coal

This is a type of coal used to heat homes. It is characterised by excessive smoke and the release of particles, which can negatively affect breathing and health, and reduce air quality.

In Ireland, smoky coal is banned in all towns with more than 10,000 people.

Sustainable Development Goals (SDGs)

These are goals (17 in all) developed by the United Nations to address the urgent environmental, political and economic challenges facing our world. Their ultimate goal is to end poverty, while protecting the planet and building economic growth.

You can find out more information about Ireland's progress towards achieving the SDGs at [Ireland's Hub for Sustainable Development Goals \(geohive.ie\)](http://Ireland's Hub for Sustainable Development Goals (geohive.ie))

The 17 goals are:

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| 1. No poverty | 10. Reduced inequalities |
| 2. Zero hunger | 11. Sustainable cities and communities |
| 3. Good health and well-being | 12. Responsible consumption and production |
| 4. Quality education | 13. Climate action |
| 5. Gender equality | 14. Life below water |
| 6. Clean water and sanitation | 15. Life on land |
| 7. Affordable and clean energy | 16. Peace, justice and strong institutions |
| 8. Decent work and economic growth | 17. Partnerships for the goals |
| 9. Industry, innovation and infrastructure | |

Sustainable Energy Authority of Ireland (SEAI)

The Sustainable Energy Authority of Ireland is Ireland's national energy authority. SEAI works with Government, homeowners, businesses, and communities to help create a clean energy future.

You can learn more about the SEAI at www.seai.ie



Term	Explanation
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T

Treaty This is a formal legal agreement between countries on trade, peace or other issues.

U

UNFCCC This stands for United Nations Framework Convention on Climate Change. It is an international treaty to address climate change. It came into force in 1994 and has almost universal membership (197 members). The Paris Agreement is made under this treaty.

You can find out more about the UNFCCC at www.unfccc.int

UNFCCC COP This stands for Conference of the Parties (states) to the UNFCCC. It is where decisions are made about climate change under the UNFCCC. All states that are members of the UNFCCC are represented at the COP. It meets most years. The last COP (COP 25) was held in Madrid, Spain in December 2019, and the next COP (COP 26) will take place in Glasgow, United Kingdom, in November 2021.

You can find out more about COP 26 at www.ukcop26.org

