

(<https://www.energy-uk.org.uk>)

[Home \(/\)](#) [About \(/about-us.html\)](/about-us.html) [Policy \(/policy.html\)](/policy.html) [Customers \(/customers.html\)](/customers.html)

[Energy Industry \(/energy-industry.html\)](/energy-industry.html) [Media & Campaigns \(/media-and-campaigns.html\)](/media-and-campaigns.html)

[Events \(/events.html\)](/events.html) [Contact \(/contact-us.html\)](/contact-us.html)

Energy Industry (/energy-industry.html)
Energy in the UK (/energy-industry/energy-in-the-uk.html)
The energy market explained (/energy-industry/the-energy-market.html)
Lighting up Britain <
Energy efficiency in Britain (/energy-industry/energy-efficiency-in-britain.html)
Profits & prices (/energy-industry/energy-companies-profits-and-prices.html)
Network and supply (/energy-industry/network-and-supply.html)
Electricity generation (/energy-industry/electricity-generation.html)
Gas generation <
Coal generation (/energy-industry/coal-generation.html)
Nuclear generation (/energy-industry/nuclear-generation.html)

[Home \(/\)](#) / [Energy Industry \(/energy-industry.html\)](/energy-industry.html) / Renewable generation

Renewable generation

Renewable technologies use natural energy to make electricity. Fuel sources include wind, wave, marine, hydro, biomass and solar. It is also made using sources of natural energy that are quickly replaced, such as biomass.

Renewables produce more than 20% of the UK's electricity, and EU targets means that this is likely to increase to 30% by 2020. From 2020, renewable energy will continue to be an important part of the strategy to reduce carbon emissions. To achieve this, a range of technologies will need to be used, such as onshore and offshore wind farms, biomass power stations or hydropower systems.



Support schemes for renewable energy

In the UK there are several schemes that provide financial support for renewable energy. These schemes encourage technological development and wider adoption of renewables which in turn lead to economies of scale and lower costs.

- The Renewable Obligation (RO) is intended to encourage renewable electricity generation for large scale installations. It requires suppliers to source an ever increasing amount of the electricity from renewable sources. The RO rewards renewable output over the lifetime of a project.
- The Feed-in Tariff (FiT) is designed to support small scale renewable installations up to 5MW. Through FiTs, generators are paid a tariff for every unit of electricity they produce. Any electricity not used on site can also be sold back into the Grid, and generators are paid extra to do this. (http://www.decc.gov.uk/en/content/cms/meeting_energy/Renewable_ener/feedin_tariff/feedin_tariff. out more about the FiT scheme at [Department of Business, Energy and Industrial Strategy](https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics). (<https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics>)
- A new scheme to support renewables and other low carbon technologies is currently being developed through Electricity Market Reform. The scheme will be called a Feed in Tariff with a Contract for Difference (CfD).

[Renewable generation \(/energy-industry/renewable-generation.html\)](/energy-industry/renewable-generation.html)

[Sustainability \(/energy-industry/sustainability.html\)](/energy-industry/sustainability.html)

[Power to everyone \(/energy-industry/power-to-everyone.html\)](/energy-industry/power-to-everyone.html)

Wind power

The UK is well placed to take advantage of wind power, with some of the best conditions in Europe and high average wind speeds. Both onshore and offshore wind farms are an important part of where the UK sources its energy. The UK has invested significantly in offshore wind and has installed as much capacity as the rest of the world combined.

Bioenergy

Biomass can be sourced from any living substance as well as from material such as biodegradable waste, food waste and animal manure. Biomass can be burnt in thermal power and heat generation. It can also be used in the anaerobic digestion process, making a bio-gas that can be burnt in electricity or heat generation. This gas can also be refined to become methane and injected into the gas grid.

The UK Government has committed to reducing UK greenhouse gas emissions by 80% by 2050. To achieve this, elements of the UK energy system must deliver negative emissions – that is to say, they must remove from the atmosphere more carbon than they emit. Biomass production and consumption, especially when combined with Carbon Capture and Storage, offer a credible route for the UK to deliver negative emissions. Low-cost routes to 80% reductions in greenhouse gas emissions foresee around 130 TWh per year of energy being delivered from bioenergy sources. This equates to approximately 10% of total UK energy demand in 2050.

Marine, wave and hydroelectricity

Hydroelectric power is a well established technology in the UK. The flow of water is used to turn turbines to generate electricity. There are different types of hydro power including those using the natural flow of the river or dam storage schemes.

Marine and wave technologies use the energy in the ocean to produce electricity. The marine and wave industries in the UK are at an early stage, but are growing due to several innovative designs. Marine technologies are expected to make a significant contribution to renewable power generation after 2020.

Solar PV

Solar photovoltaics are panels that convert the rays of the sun into energy. Current installed capacity exceeds 8.7GW and is increasing rapidly, with year-on-year growth exceeding 80% in 2015.

[Sitemap \(/sitemap.html\)](/sitemap.html) | [Privacy and cookies \(/privacy-and-cookies.html\)](/privacy-and-cookies.html) | [Terms and Conditions \(/terms-and-conditions.html\)](/terms-and-conditions.html)

Copyright © 2018 [Energy UK \(http://www.energy-uk.org.uk\)](http://www.energy-uk.org.uk)

Powered by [JoomlaWired \(http://www.joomlawired.com\)](http://www.joomlawired.com), built by [Webx \(http://www.webxsolution.com\)](http://www.webxsolution.com)