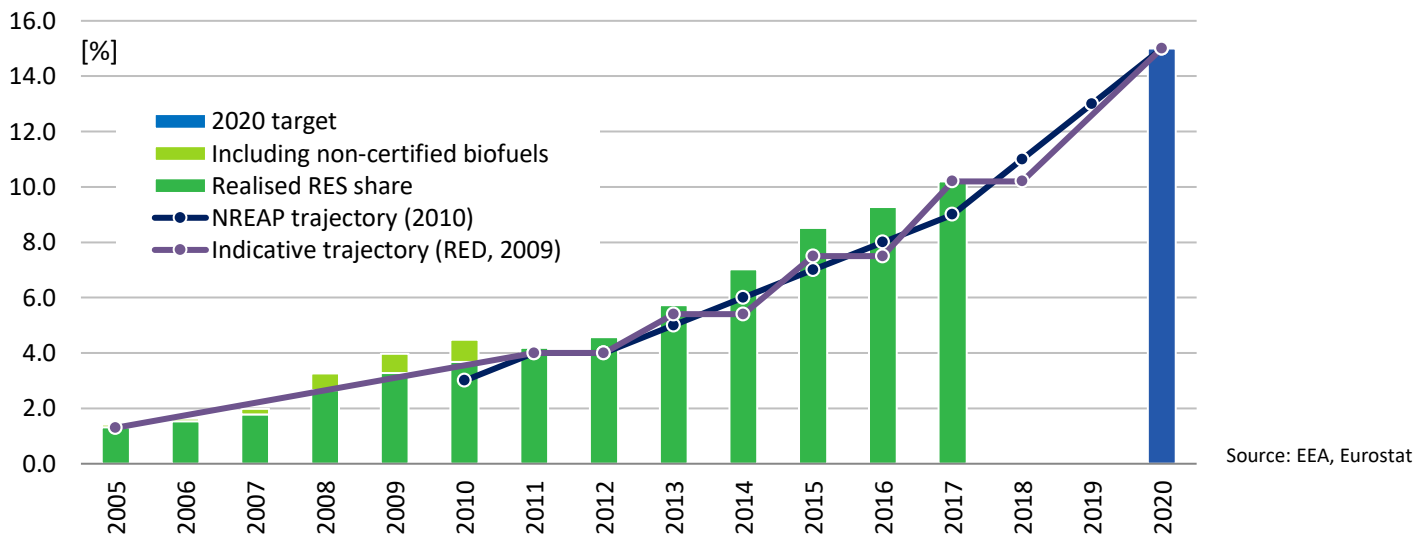


Summary

In the United Kingdom RES-E are supported through a feed-in tariff, Contracts for Difference scheme and tax regulation mechanism. RES-E is connected to the grid under the principle of non-discrimination, RES-E plant operators are granted the right to access the grid and grid operators are obliged to expand the grid if this is necessary to accept all generated RES-E from a plant. As for RES-H&C price-based mechanisms are available for supporting RES-H installations. Furthermore, a quota system for biofuels for transport is in place. A training programme for RES-E plant installers is in place, as well as a certification programme for RES-E installations.

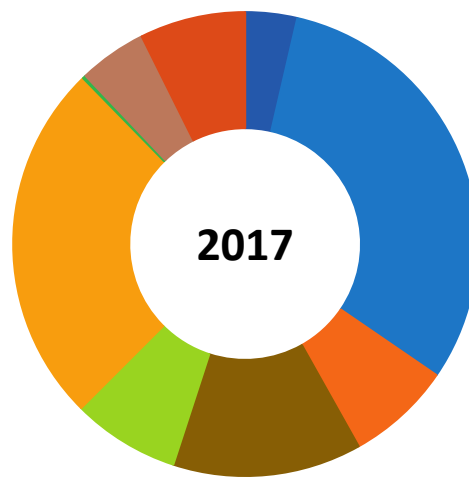
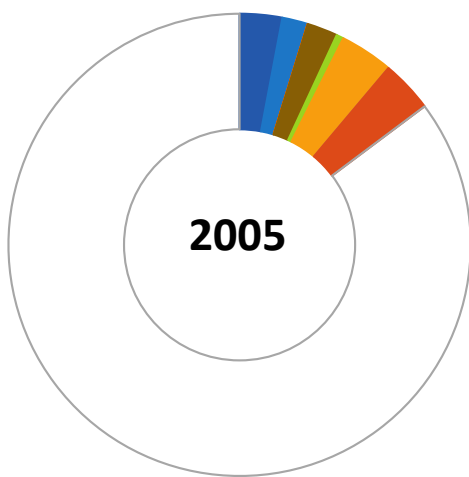


Abbreviations used:

RES: renewable energy sources
 RES-E: renewable electricity
 RES-H/C: renewable heating/cooling
 RES-T: renewable transport fuels

Data for 2017

Overall RES share:	10.2%	Avoided fossil fuels:	21.7 [Mtoe]
Overall RES 2020 target:	15.0%	Avoided fuel expenses:	5.4 [billion euro]
Share RES-E in electricity:	28.1%	RES Turnover:	13100 [MEUR]
Share RES-T in transport:	5.1%	RES Employment:	131400 [jobs]
Share RES-H/C in heating:	7.5%		



- Hydropower
- Wind power
- Solar PV, CSP and water heaters
- Solid biomass
- Biofuels in transport
- Renewable heat consumed
- Renewable heat derived
- Heat pumps
- All other renewables
- Gap towards 2017

Source: Eurostat, 2019.

	2005		2017		
	Energy		Energy	Employment	Turnover
Hydropower	403.5 ktoe		491.1 ktoe	2300 Jobs	250 MEUR
Wind power	242.8 ktoe		4199.3 ktoe	69900 Jobs	7360 MEUR
Solar PV, CSP and water heaters	0.7 ktoe		991.0 ktoe	13100 Jobs	1320 MEUR
Solid biomass	290.1 ktoe		1785.3 ktoe	15000 Jobs	1230 MEUR
Biofuels in transport	68.8 ktoe		1016.0 ktoe	10100 Jobs	820 MEUR
Renewable heat consumed	506.2 ktoe		3418.2 ktoe		
Renewable heat derived	0.0 ktoe		31.4 ktoe		
Heat pumps	0.0 ktoe		641.8 ktoe	1700 Jobs	170 MEUR
All other renewables	492.6 ktoe		998.0 ktoe		
Gap towards 2017	11567.3 ktoe				

Source: Eurostat, EurObserv'ER, 2019.

Hydropower jobs & turnover only covers 'small hydropower'. PV=Photovoltaics, CSP=Concentrated Solar Power. Biofuels in transport only covers compliant fuels (employment and turnover additionally cover the non-compliant biofuels). Derived heat includes heat produced in main activity producer plants and heat sold produced in autoproducer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).



CURRENT RENEWABLE ENERGY POLICY

RES-E

In the United Kingdom, the generation of electricity from renewable sources is supported through a combination of a feed-in tariff system, Contracts for Difference system, in terms of a quota obligation, a certificate system and a tax mechanism.

Under the feed-in tariff, accredited producers, whose plants have a capacity of less than 5 MW, can sell their electricity at fixed tariff rates established by the Gas and Electricity Market Authority (Ofgem). The scheme is applicable to England, Wales and Scotland only. Under the Contracts for Difference (CfD) scheme, a RES-E generator and a CfD Counterparty (Low Carbon Contracts Company) enter into a contract, which is based on a difference between the market price and an agreed “strike price”. Currently, the scheme is applicable in England, Wales and Scotland.

From April 2017 the CfD scheme is the only support scheme for all new RES-E plants exceeding 5 MW. The first Allocation Round took place in October 2014, while the second Allocation Round took place in April 2017. Furthermore, in Great Britain commercial and industrial users of traditional energy sources are subject to a tax on fossil fuels used for electricity generation. Electricity from renewable sources is exempt from this tax.

Furthermore, in Great Britain commercial and industrial users of traditional energy sources are subject to Carbon Price Floor (CPF), a tax on fossil fuels used for electricity generation. Electricity from renewable sources is exempt from this tax.

RES-H&C

The Renewable Heat Incentive (RHI) is the main instrument for funding RES-H sources in the United Kingdom by supporting RES-H installations with a fixed amount per kWth produced. The scheme consists of two parts: The Non-Domestic RHI (UK) and the Domestic RHI (UK and Northern Ireland until 2016). While the Non-Domestic RHI provides payments to industry, businesses and public sector organisations, is the Domestic RHI open to homeowners, private landlords, social landlords and self-builders. In addition, the Department for Business, Energy & Industrial Strategy (BEIS) plans to introduce changes to the Non-Domestic/Domestic Renewable Heat Incentive (RHI) scheme Regulations that came into effect in September 2017. Further amendments are introduced in 2018.

RES-T

In the UK, a quota system for biofuels is in place since 2007. Fuel suppliers for transport are obliged to satisfy a specified quota amount of biofuels in the total supplied fuel. There is a certificate system for providing proof of compliance.

OVERVIEW OF MAIN SUPPORTING POLICIES

Table 1: Overview of support schemes to promote renewable energy in the United Kingdom

	REGULATORY POLICIES					FISCAL INCENTIVE AND PUBLIC FINANCES		
	Feed-in tariff < 5MW	Premium tariff	Quota obligation with certificates system > 5-MW	Tendering	Net-metering/ net-billing	Capital subsidy, grants	Tax regulation mechanism	Loans
RES-E								
- Offshore wind	o	o						
- Onshore wind	o	o						
- Solar	o	o						
- Hydro	o	o						
- Geothermal	o	o						
- Solid biomass	o	o						
- Biogas	o	o						
RES-H/C								
- Solar thermal	o							
- Geothermal	o							
- Biomass	o							
- Biogas	o							
- Large ambient heat application	o							
- Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves	o							
- Others, i.e. aerothermal, hydrothermal	o							
RES-T								
- Bio gasoline			o					
- Biodiesel			o					

Sources: EurObserv'ER, British National Climate and Energy Plan, RES-Legal Europe (2019)

Table 2: Brief description of key policy instruments aimed at promoting RES in the United Kingdom

<i>Instrument</i>	<i>Description</i>
Feed-in tariff	Eligible renewable energy plants with a capacity of up to 5 MW must generally undergo an accreditation process, which may differ according to plant size and energy source. Once this process is completed and the plant has been accredited, the electricity exported to the grid by the plant is bought by a FiT licensee, i.e. an electricity supplier, at rates fixed by the FTO 2012 and corrected yearly by the Gas and Electricity Markets Authority (Ofgem). This system only applies in Great Britain, i.e. Scotland, England and Wales. The Order is not applicable in Northern Ireland. With some exceptions, until 31 March 2017 plants between 50 kW and 5 MW are entitled to choose between the above-mentioned system and the Renewables Obligation.
Contracts for Difference (CfD)	A Contract for Difference (CfD) is a private law contract between a RES-E generator and the CfD Counterparty – Low Carbon Contracts Company (LCCC), wholly owned by the UK Government. The scheme is based on a difference between the market price and an agreed “strike price”. Where a “strike price” is higher than a market price, the CfD Counterparty must pay the RES-E generator the difference between the “strike price” and the market price. Where market price is higher than the “strike price”, RES-E generator must pay back the CfD Counterparty the difference between the market price and the “strike price”. An operator of eligible RES-E technology, willing to secure a Contract for Difference, has to take part in an allocation round. The CfD scheme is currently in place in Great Britain Northern and Ireland. With some exceptions, until 31 March 2017, RES-E generators are able to choose between Renewables Obligation (RO) and CfD schemes. Since April 2017 the CfD scheme will be the only support scheme for all new RES-E plants over 5MW.
Tax regulation mechanism	From April 2013, Carbon Price Floor was introduced in Great Britain. The tax applies to fossil fuels used for electricity generation. Renewable electricity is exempt from paying this tax.
Non-domestic Renewable Heat Incentive (RHI)	The RHI is the world’s first Feed-in-Tariff for renewable heat, introduced in 2011 (non-domestic) and 2014 (domestic). The government announced in late 2015 that the RHI scheme would be extended to 2020/21. The budget is to increase from £430 million in 2015/16 to £1.15 billion in 2020/21. The heat demand that can be claimed for (which is deemed) is being reduced, thus cutting the amount of RHI that can be claimed by larger properties. All technologies used for heat generation from renewable energy sources are eligible
Training programmes for Installers <i>Green Deal Skills Alliance (GDSA)</i>	Launched in January 2012, the aim of this scheme is to ensure that the UK has the right skills to implement the Green Deal - the flagship policy to improve the energy efficiency of buildings. GDSA is tasked with creating new training and accreditation opportunities for the energy assessment, advice and installation workforce.
Biofuel quota <i>Renewable Transport Fuel Obligations</i>	A quota system for biofuels is in place in the United Kingdom since 2007. Fuel suppliers for transport are obliged to satisfy a specified quota amount of biofuels in the total supplied fuel. There is a certificate system for providing proof of compliance.

For further information:

Electricity Market Reform: Contracts for Difference, www.gov.uk/government/collections/electricity-market-reform-contracts-for-difference

Member State Progress Report, available at the Renewable Energy pages of the European Commission, <http://ec.europa.eu/energy/en/topics/renewable-energy>

Non-domestic Renewable Heat Incentive (RHI), www.ofgem.gov.uk/environmental-programmes/non-domestic-rhi

Renewables Obligation Scheme, www.ofgem.gov.uk/environmental-programmes/ro

RES Legal database, <http://www.res-legal.eu/search-by-country/united-kingdom/>

National Energy and Climate Plans (NECPs), <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/governance-energy-union/national-energy-climate-plans>

What is meant by ...?

Auctions for granting renewable energy support	An auction is a process of granting production or investment support to renewable energy projects based on the lowest bids by eligible project developers.
Feed-in tariff (FiT)	A support scheme which provides for a technology-specific remuneration per unit of renewable energy payable to eligible renewable energy producers. A proper, periodic review of FiT rates is often undertaken with the aim to prevent both too high FiTs so as to minimise regulatory rents, i.e. supra-normal returns and too low FiTs to preclude below-target market uptake because of FiT levels that are perceived by market participants to be less attractive. In addition, feed-in tariffs often include "tariff degression", a mechanism according to which the price (or tariff) ratchets down over time.
Feed-in premium (FiP)	A scheme which provides for a support level per unit of renewable energy to eligible renewable energy producers, typically for a period of 10-20 years, at a pre-set fixed or floating rate. The premium is typically adjusted periodically to exactly offset change in the average energy wholesale market price, based on a pre-specified benchmark market price. A floating FiP may move freely or may only be allowed to move within a pre-set interval.
Grants	Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. (Source: Wikipedia.org)
Green public procurement	In Green public procurement contracting authorities take environmental issues into account when tendering for goods or services. The goal is to reduce the impact of the procurement on human health and the environment. (Source: Wikipedia.org)
Renewable quota scheme (RQS)	A RQS mandates certain market actors (typically retail suppliers or large energy end-users) to respect a pre-set minimum share or amount of their total energy procurements from renewable sources of energy. Typically a tradable green certificate (TGC) scheme is operated to enable the obligated parties to prove their compliance with the prevailing renewable quota target by means of TGCs.
Sliding feed-in-tariff	A FiT scheme which pre-sets technology-specific declining feed-in tariffs for certain prospective vintages in line with the technology-specific learning curve, as projected by the National Regulatory Agency (NRA). Often a degression rate is used indicating the %/annum decrease in the rate level.
Soft loans	Loans at concessional (below market-based) terms, for example at sub-market-conform interest rates, made available in several Member States to stimulate certain renewable energy technologies.
Tax credits	These are amounts a tax paying entity is allowed to deduct when declaring payable taxes, for example company tax or income tax, to the tax authorities, for example the producer tax credits (PTCs) used in the United States to stimulate among others wind energy deployment.



Disclaimer

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