



RENEWABLE ENERGY

Renewable sources of energy (wind power, solar power, hydroelectric power, ocean energy, geothermal energy, biomass and biofuels) are alternatives to fossil fuels that contribute to reducing greenhouse gas emissions, diversifying energy supply and reducing dependence on unreliable and volatile fossil fuel markets, in particular oil and gas. EU legislation on the promotion of renewables has evolved significantly in recent years. The future policy framework for the post-2030 period is under discussion.

LEGAL BASIS AND OBJECTIVES

Article 194 of the Treaty on the Functioning of the European Union: EU energy policy is aimed at promoting the development of new and renewable forms of energy to better align and integrate climate change goals into the new market design.

ACHIEVEMENTS

A. Initial steps

Following the 1997 White Paper on renewable energy sources ([COM\(1997\)0599](#)), the EU set itself targets of using renewable energy sources (RES) to meet 12% of energy consumption and 22.1% of electricity consumption needs by 2010, with indicative targets for each Member State set out in Directive 2001/77/EC. The lack of progress towards achieving the 2010 targets led to the adoption of a more comprehensive legislative framework.

B. Renewable Energy Directive

The existing Renewable Energy Directive, adopted by codecision on 23 April 2009 (Directive 2009/28/EC, repealing Directives 2001/77/EC and 2003/30/EC), established that a mandatory 20% share of EU energy consumption must come from RES by 2020. In addition, all Member States are required to obtain 10% of their transport fuels from RES by 2020. The directive also mapped out various mechanisms that Member States can apply in order to reach their targets (support schemes, guarantees of origin, joint projects, cooperation between Member States and third countries), as well as sustainability criteria for biofuels.

The directive specifies national renewable energy targets for each country, taking into account its starting point and overall potential for renewables. These targets range from a low of 10% in Malta to a high of 49% in Sweden. EU countries set out how they plan to meet these targets and the general roadmap for their renewable energy



policy in [national renewable energy action plans](#). Progress towards the national targets is measured every two years when EU countries publish national renewable energy [progress reports](#).

C. Future steps

The Commission, in its communication of 6 June 2012 entitled ‘Renewable energy: a major player in the European energy market’ ([COM\(2012\)0271](#)), identified the areas in which efforts should be stepped up between now and 2020 for the EU’s renewable energy production to continue to increase up to 2030 and beyond. In November 2013, the Commission provided further guidance on renewable energy support schemes as well as on the use of cooperation mechanisms to achieve renewable energy targets at a lower cost (COM(2013)7243). It announced a complete overhaul of the subsidies that Member States are allowed to offer the renewable energy sector, preferring tendering, feed-in premiums and quota obligations to commonly used feed-in tariffs. The Guidelines on State aid for environmental protection and energy 2014-2020 ([2014/C 200/01](#)) further shape the new framework for renewable energy support schemes.

The EU has started preparing for the period beyond 2020, in order to provide early policy clarity on the post-2020 regime for investors. Renewable energy plays a key part in the Commission’s long-term strategy as outlined in its ‘Energy Roadmap 2050’ ([COM\(2011\)0885](#)). The decarbonisation scenarios for the energy sector proposed in the roadmap point to a renewable energy share of at least 30% by 2030. However, the roadmap also suggests that the growth of renewable energy will slacken after 2020 unless there is further intervention. Following the publication in March 2013 of a Green Paper entitled ‘A 2030 framework for climate and energy policies’ ([COM\(2013\)0169](#)), the Commission, in its communication of 22 January 2014 entitled ‘A policy framework for climate and energy in the period from 2020 to 2030’ ([COM\(2014\)0015](#)), proposed not to renew binding national targets for renewable energy after 2020. A mandatory target — 27% of energy consumption to come from RES — is provided for only at EU level. The Commission expects nationally binding greenhouse gas emission targets to spur growth in the energy sector. This change of direction has led to intense discussions with the Council and Parliament.

On 30 November 2016, the Commission published a legislative package entitled ‘Clean energy for all Europeans’ ([COM\(2016\)0860](#)) as part of the broader Energy Union strategy ([COM\(2015\)0080](#)). It includes a proposal for a recast of the Directive on the promotion of renewable energy resources (RES) (Recast 2016/0382) to make the EU a global leader in RES and to ensure that the target of at least a 27% share of renewables in the total amount of energy consumed in the EU by 2030 is met. The Commission’s proposal for a new directive also promotes the use of energy from RES and aims at acting in six different areas:

- Further deploying renewables in the electricity sector;
- Mainstreaming renewables in the heating and cooling sector;
- Decarbonising and diversifying the transport sector (with a renewables target for 2030 of at least 14% of total energy consumption in transport);
- Empowering and informing customers;



- Strengthening the EU sustainability criteria for bioenergy;
- Making sure the EU-level binding target is achieved on time and in a cost-effective way.

The recast proposal of the Directive on the promotion of renewable energy resources, as amended by the Committee on Industry, Research and Energy and the Committee on the Environment, Public Health and Food Safety, was provisionally agreed upon on 14 June 2018. The agreement set a 32% binding EU target for RES by 2030. As for the transport sector, it established a 14% RES target by 2030 with a 3.5% share of advanced biofuels and biogas (1% by 2025). Furthermore, it put a 7% cap on the share of first-generation biofuels in road and rail transport, and plans to phase out the use of palm oil (and other food-crop biofuels that increase CO₂ emissions) by 2030 through a certification scheme. Consumer rights to RES self-consumption have been strengthened, the ‘energy efficiency first’ principle is to become a guiding one, and an indicative annual increase of 1.3% for RES in heating and cooling has been introduced. The European Parliament and the Council formally adopted the text in December 2018.

D. Supporting policies

Making electricity infrastructure fit for the large-scale deployment of renewables is among the primary goals of the Energy Union strategy (see also: [2.4.7](#) — Energy Policy), and is further supported in the Energy Roadmap 2050 and the Energy Infrastructure Package (see also: [2.1.9](#) — Internal Energy Market). The promotion and development of new-generation renewable technologies is also one of the key elements of the Strategic Energy Technology Plan or SET-Plan (see also: [2.4.7](#) — Energy Policy).

E. Resource-specific issues

1. Biomass and biofuels

The EU currently has two targets for biofuels, namely to source 10% of transport fuels from RES by 2020 (the Renewable Energy Directive (2009/28/EC)) and to oblige fuel providers to reduce the greenhouse gas intensity of their fuels by 6% by 2020 (the Fuel Quality Directive (2009/30/EC)). In its communication of 22 January 2014 entitled ‘A policy framework for climate and energy in the period from 2020 to 2030’ ([COM\(2014\)0015](#)), the Commission proposed to scrap these two targets after 2020. This change is linked to the uncertainty about how to minimise the indirect emissions effect of land-use change associated with biofuels.

In 2015, the Renewable Energy Directive and the Fuel Quality Directive were revised to recognise and mitigate the negative environmental impact that biofuel production can have in terms of indirect land-use change and related greenhouse gas emissions^[1]. Accordingly, the share of energy from biofuels produced from cereal and other starch-rich crops, sugars and oil crops and from other crops grown as main crops primarily for energy purposes on agricultural land should be no more than 7% of the final consumption of energy in transport in the Member States in 2020.

[1] Directive (EU) 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources (OJ L 239, 15.9.2015, p. 1).



After the publication of non-binding criteria for biomass in February 2010 ([COM\(2010\)0011](#)), the Commission decided to review the measures, to evaluate the success of its original recommendations and to establish whether mandatory standards would be necessary in the future. The Commission's November 2016 proposal for a revised [Renewable Energy Directive \(COM\(2016\)0767\)](#) includes updated sustainability criteria for biofuels used in transport and bioliquids, and solid and gaseous biomass fuels used for heat and power. The proposal includes a sub-target of 3% for advanced biofuels. While the existing 7% cap on first-generation biofuels is maintained, an EU-level obligation for fuel suppliers to provide a certain share (6.8%) of low-emission and renewable fuels and an extension of the scope of the EU sustainability criteria for bioenergy (to cover biomass and biogas for heating and cooling and electricity generation) is introduced.

2. Offshore wind and ocean energy

In the context of the second strategic energy review carried out in November 2008, the Commission issued a communication on 13 November 2008 entitled 'Offshore Wind Energy: Action needed to deliver on the Energy Policy Objectives for 2020 and beyond' ([COM\(2008\)0768](#)), with the aim of promoting the development of maritime and offshore wind energy in the EU.

On 20 January 2014, the Commission set out an action plan to support the development of ocean energy, including that generated by waves, tidal power, thermal energy conversion and salinity gradient power (in its communication entitled 'Blue Energy: Action needed to deliver on the potential of ocean energy in European seas and oceans by 2020 and beyond' ([COM\(2014\)0008](#))).

ROLE OF THE EUROPEAN PARLIAMENT

Parliament has consistently advocated the use of RES and highlighted the importance of setting mandatory targets for 2020^[2] and, more recently, for 2030. In February 2014 it adopted a resolution^[3] criticising the proposals made by the Commission for the 2030 climate and energy framework as short-sighted and unambitious. It called for a binding 30% share of renewables in energy consumption at EU level, to be implemented through individual nationally binding targets, and for an extension of transport fuel targets after 2020.

In addition, Parliament has called in the past for a system of EU-wide incentives for RES to be set up in the longer term^[4], while also advocating support for smart grid technology^[5]. It has also frequently invited the Commission to propose a legal

[2]Parliament resolutions of 29 September 2005 on the share of renewable energy in the EU and proposals for concrete actions (OJ C 227 E, 21.9.2006, p. 599), of 14 February 2006 on heating and cooling from renewable sources of energy (OJ C 290 E, 29.11.2006, p. 115), of 14 December 2006 on a strategy for biomass and biofuels (OJ C 317 E, 23.12.2006, p. 890), and of 25 September 2007 on the Road Map for Renewable Energy in Europe (OJ C 219 E, 28.8.2008, p. 82).

[3]Parliament resolution of 5 February 2014 on a 2030 framework for climate and energy policies (OJ C 93, 24.3.2017, p. 79).

[4]Parliament resolution of 25 November 2010 entitled 'Towards a new Energy Strategy for Europe 2011-2020' (OJ C 99 E, 3.4.2012, p. 64).

[5]Parliament resolution of 5 July 2011 on energy infrastructure priorities for 2020 or beyond (OJ C 33 E, 5.2.2013, p. 46).



framework for renewable heating and cooling with a view to increasing their share of energy production.

When it adopted the Renewable Energy Directive, Parliament tightened up and clarified several mechanisms, while also instituting a system to guarantee more thoroughly the environmental sustainability of the whole policy. In particular, Parliament played an important role in:

- Defining the conditionality of the renewable transport fuel target, by laying down quantitative and qualitative sustainability criteria for biofuels (social sustainability, land-use rights, effects on food security and prices, etc.), pointing in particular to the problems associated with indirect land-use change;
- Ensuring access for renewable energy to electricity grid infrastructure;
- Limiting the role of the 2014 review clause, in order to avoid renegotiation of the binding targets.

In March 2013, Parliament endorsed the Energy Roadmap 2050^[6] and called on the Commission to present as soon as possible a 2030 policy framework including milestones and targets for greenhouse gas emissions, renewable energy and energy efficiency. Its resolution highlighted, in particular, the importance of stable regulatory frameworks in order to stimulate investment in renewable energy, the need for a more European approach to renewable energy policy taking full advantage of existing cooperation arrangements, and the specific role to be played by decentralised generation and microgeneration. Parliament invited the Commission to submit an analysis and proposals as to how to deploy RES sustainably and with greater efficiency in the EU.

In June 2016, Parliament adopted a resolution^[7] on the renewable energy progress report, in which it called on the Commission to present a more ambitious climate and energy package 2030 which increases the EU target for RES to at least 30%, to be implemented by means of individual national targets. The targets already agreed for 2020 must be taken as the minimum baseline when revising the Renewable Energy Directive. On 17 January 2018, Parliament supported a share of at least 35% of all energy coming from renewables by 2030^[8] and reinforced self-consumption as a right.

In November 2016 the European Commission presented a recast proposal of the Directive on the promotion of renewable energy resources (RES). The agreement set a 32% binding EU target for RES by 2030. The European Parliament and the Council formally adopted the text in December 2018 ([Directive \(EU\) 2018/2001](#)). Member States must transpose the revised directive into national law by 30 June 2021. The revised directive will take effect from 1 July 2021 onwards.

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[6]Parliament resolution of 14 March 2013 on the Energy Roadmap 2050, a future with energy (OJ C 36, 29.1.2016, p. 62).

[7]Parliament resolution of 23 June 2016 on the renewable energy progress report (OJ C 91, 9.3.2018, p. 16).

[8]<http://www.europarl.europa.eu/news/en/press-room/20180112IPR91629/meps-set-ambitious-targets-for-cleaner-more-efficient-energy-use>



