



Renewable Energy Directive

Policy Review



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 642317.

Authors

Marta Rodriguez, IMDEA

Gonzalo Delacámara, IMDEA

With thanks to:

Ennid Roberts, Ecologic Institute (Review)

Project coordination and editing provided by Ecologic Institute.

Acknowledgments & Disclaimer

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 642317.

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information. The views expressed in this publication are the sole responsibility of the author and do not necessarily reflect the views of the European Commission.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the publisher is given prior notice and sent a copy.

Renewable Energy Directive

Policy Review
<p>Name/Type of the Legal Act or Policy</p> <p>Renewable Energy Directive (“RED”).</p> <p>Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.</p> <p>Amended by:</p> <ul style="list-style-type: none"> • 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 renewables • Council Directive 2013/18/EU of 13 May 2013 adapting Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, by reason of the accession of the Republic of Croatia (Text with EEA relevance) • Commission Regulation (EU) No 1307/2014 of 8 December 2014 on defining the criteria and geographic ranges of highly biodiverse grassland for the purposes of Art. 7b(3)(c) of Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and Art. 17(3)(c) of Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources. Establishes a link between Directive 2009/28/EC with Council Directive 92/43/EEC and Directive 2009/147/EC of the European Parliament and of the Council.
<p>Entry into force</p> <p>25/06/2009</p>
<p>Departments/Units in charge</p> <p>Directorate–General for Energy (DG ENER), Dir C — Renewables, Research and Innovation, Energy Efficiency Unit 1. Renewables and CCS policy Abreu Marques, Paula Rue Demot 24/Demotstraat 24 1040 Bruxelles/Brussel (Belgique) Tel: +32 229–91111 Internet: http://ec.europa.eu/energy</p>
<p>Common Implementation strategy (CIS processes)</p>

<p>No evidence of a specific CIS Working Group. Yet, Art. 24 calls upon the Commission to establish an online public transparency platform in order to facilitate and promote cooperation between Member States (apart from fostering transparency), specially regarding statistical transfers (Art. 6) and Joint Projects (Arts. 7 and 9).</p>
<p>Administrative body handling implementation in MS</p>
<p>At national level: Ministry of Energy, Industry and Tourism (Spain); MAMAOT (Ministry of Agriculture, Sea, Environment and Regional Planning) (Portugal)/Ministry of Economic Development (Italy).</p>
<p>Main Objective</p>
<p>“To establish a common framework for the promotion of energy from renewable sources. [The Directive] sets mandatory national targets for the overall share of energy from renewable sources in gross final consumption of energy and for the share of energy from renewable sources in transport. [The Directive] lays down rules relating to statistical transfers between Member States, joint projects between Member States and with third countries, guarantees of origin, administrative procedures, information and training, and access to the electricity grid for energy from renewable sources. It establishes sustainability criteria for biofuels and bioliquids” (Art. 1).</p>
<p>Principles included in the legal text</p>
<p>Sustainability; Subsidiarity; Proportionality</p>
<p>Other objectives/Key concepts/key elements of the legislation</p>
<ul style="list-style-type: none"> ▶ Creates a common framework for the use of renewable energy in the EU in order to limit greenhouse gas (GHG) emissions and promote cleaner transport by setting targets for all EU countries with the overall aim of making renewable energy sources account for 20% of EU energy gross final consumption and 10% share of energy from renewable sources in each Member State’s transport energy consumption by 2020. ▶ National renewable energy action plans (covering: targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling, policy measures on energy efficiency on final consumption of energy, and adequate measures to be taken to achieve those national overall targets, including cooperation between local, regional and national authorities, planned statistical transfers or joint projects and national policies to develop existing biomass resources and promote new biomass resources for different uses) (Art. 4). ▶ Cooperation mechanisms (under the form of statistical transfers of renewable energy, joint renewable energy projects or joint renewable energy support schemes). ▶ Information transparency (and transparency platform). ▶ Training programmes. ▶ Guarantee of origin of electricity heating and cooling produced from renewable energy sources and access to/and operation of the grids. ▶ Sustainability criteria for biofuels and bioliquids.

- ▶ Voluntary schemes for biofuels producers (for showing sustainability criteria compliance).
- ▶ Non-discrimination.

Terminology

Art. 2 provides definitions for the following terms:

Energy from renewable sources: “energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases”;

Aerothermal energy: “energy stored in the form of heat in the ambient air”;

Geothermal energy: “energy stored in the form of heat beneath the surface of solid earth”;

Hydrothermal energy: “energy stored in the form of heat in surface water”;

Biomass: “biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste”;

Gross final consumption of energy: “energy commodities delivered for energy purposes to industry, transport, households, services including public services, agriculture, forestry and fisheries, including the consumption of electricity and heat by the energy branch for electricity and heat production and including losses of electricity and heat in distribution and transmission.

District heating/cooling: “the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network to multiple buildings or sites, for the use of space or process heating or cooling”;

Bioliqids: “liquid fuel for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass”;

Biofuels: “liquid or gaseous fuel for transport produced from biomass”;

Guarantee of origin: “electronic document which has the sole function of providing proof to a final customer that a given share or quantity of energy was produced from renewable sources as required by Art. 3(6) of Directive 2003/54/EC”;

Support scheme: “any instrument, scheme or mechanism applied by a Member State or a group of Member States, that promotes the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchased”.

Renewable energy obligation: “a national support scheme requiring energy producers to include a given proportion of energy from renewable sources in their production, requiring energy suppliers to include a given proportion of energy from renewable sources in their supply, or requiring energy consumers to include a given proportion of energy from renewable sources in their consumption”.

Actual value: “the greenhouse gas emission saving for some or all of the steps of a specific biofuel production process calculated in accordance with the methodology laid down in part C of Annex V”.

Typical value: “an estimate of the representative greenhouse gas emission saving for a particular biofuel production pathway”;

Default value: “a value derived from a typical value by the application of pre-determined factors and that may, in circumstances specified in the Directive, be used in place of an actual value”.

Definitions included in Art. 1 in the [Commission Regulation \(EU\) No 1307/2014 on defining the criteria and geographic ranges of highly biodiverse grassland](#) for the purposes of Art. 17(3)(c) of Directive 2009/28/EC (biofuels and bioliquids):

Grassland: “terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least 5 years continuously. It includes meadows or pasture that is cropped for hay but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas as defined in Art. 17(4)(b) of Directive 2009/28/EC unless these are agroforestry systems which include land-use systems where trees are managed together with crops or animal production systems in agricultural settings”;

Human intervention: “managed grazing, mowing, cutting, harvesting or burning”;

Natural highly biodiverse grassland: “grassland that: (a) would remain grassland in the absence of human intervention; and (b) maintains the natural species composition and ecological characteristics and processes”;

Non-natural highly biodiverse grassland: “(a) would cease to be grassland in the absence of human intervention; and (b) is **not degraded**, that is to say it is not characterised by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and (c) is **species-rich**, that is to say it is: (i) a habitat of significant importance to critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or (ii) a habitat of significant importance to endemic or restricted-range species; or (iii) a habitat of significant importance to intra-species genetic diversity; or (iv) a habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or (v) a regionally or nationally significant or highly threatened or unique ecosystem”.

Derogations

Partial exemptions for insular and peripheral states (e.g. Cyprus, Malta) due to disproportionate consumption over the Community average in terms of their final consumption of energy in national air transport and limitations for commercial use of biofuels in aviation (Art. 5 para. 6 subpara. 3; Recital 33).

Types of management measures

- ▶ National renewable energy actions plans for 2020.
- ▶ Cooperation mechanisms: Statistical transfers (Art. 6): arrangements for the statistical transfer of a specified amount of energy from renewable sources from one Member State to another Member State; Joint projects (Art. 7): two or more Member States may cooperate (with/without the participation of private operators) on all types of joint projects relating to the production of electricity, heating or cooling from renewable energy sources. This mechanism can entail the physical transfer of energy

<p>from one country to another; Joint support schemes (Art. 11): two or more Member States decide, on a voluntary basis, to join/partly coordinate their national support schemes. Then a certain amount of energy from renewable sources is produced in the territory of one participating MS count towards the national overall target of another participating MS involving measures such as a common feed-in tariff, a common feed-in premium, or a common quota and certificate trading regime.</p> <ul style="list-style-type: none"> ▶ Guarantee of the origin of electricity, heating and cooling from renewable energy sources. ▶ Creation of specific infrastructure for using renewable energy sources in the transport sector. <p>Information measures to provide information to the public on energy from renewable sources in transport (if biofuels exceed 10% volume to be indicated at sales point)</p>
<p>Spatial coverage</p>
<p>The whole territory of the Member State but for certain measures dealing with biofuels, the spatial coverage also includes third countries that are a significant source of biofuels and bioliquids or of raw material (feedstock) for biofuels consumed within the territory of the EU. In these countries sustainability criteria determined in this Directive for the production of this kind of fuels also need to be fulfilled.</p>
<p>Reporting units – what are the specific transposition requirements</p>
<p>Member States report every two years on progress achieved towards the EU 2020 RES goals on the basis of their national reports. (See 6.2 for further information on reporting.)</p>
<p>Management unit</p>
<p>National territory.</p>
<p>Key planning steps</p>
<ul style="list-style-type: none"> ▶ Establishment of <i>mandatory national overall targets and measures</i> for the use of energy from renewable sources (Member States ensuring that the share of energy from renewable sources is calculated in accordance to the specifications detailed in the Directive (Art.s 5 to 11, Annex I) and measures to reach them (support schemes and cooperation). Same for the share of energy from renewable sources in transport (Art. 3). ▶ <i>Elaboration of National renewable energy actions plans</i> for 2020, covering (art. 4): targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling, policy measures on energy efficiency on final consumption of energy, and adequate measures to be taken to achieve those national overall targets, including cooperation between local, regional and national authorities, planned statistical transfers or joint projects and national policies to develop existing biomass resources and promote new biomass resources for different uses).

- ▶ Member States: a) publishing and notifying *forecast* 6 months before national plan is due a forecast document (with estimated excess production of energy from renewable sources compared to the indicative trajectory which could be transferred to other Member States and estimated potential for joint projects until 2020 and estimated demand for energy from renewable sources to be satisfied by means other than domestic production until 2020); and b) notifying their national renewable energy action *plans* to the Commission (by 30 June 2010) or submitting an amended national renewable energy action plan (if share of energy from renewable sources fell below the indicative trajectory as determined by Directive) by 30 June 2011 (deadline).
- ▶ *Reporting* (see next section).
- ▶ Notification to the Commission on *agreements* with other countries on statistical transfers, joint projects and joint support schemes (see next section).
- ▶ Ensuring that national *administrative procedures, regulations and codes* (Art. 13) fulfil the following criteria: a) clear coordination/definition, transparent timetables, of responsibilities of administrative bodies for authorisation, certification and licensing procedures; (b) comprehensive information on the processing of authorisation, certification and licensing applications for renewable energy installations and available assistance to applicants; (c) streamlined administrative procedures at the appropriate administrative level; (d) objective, transparent, proportionate, non-discriminatory rules for authorisation, certification and licensing (e) transparent and cost-related administrative charges paid by consumers, planners, architects, builders and equipment and system installers and suppliers (f) simplified and less burdensome authorisation procedures.
- ▶ *Guarantees of origin of electricity, heating and cooling produced from renewable energy sources* by Member States (in accordance with objective, transparent and non-discriminatory criteria): standard size of 1 MWh (Art. 15).
- ▶ *Access to and operation of the grids*: implementing measures to develop transmission and distribution grid infrastructure, intelligent networks, storage facilities and the electricity system, in order to allow the secure operation of the electricity system for further development of electricity production from renewable energy sources (Art. 16). Member States review and take measures to improve the frameworks and rules for transmission/distribution system operators to bear and share costs to ensure the integration of new producers (by 30 June 2011 and every two years thereafter).
- ▶ Measures to guarantee *sustainability criteria for biofuels and bioliquids* (Art. 17) requiring economic operators to show the fulfilment of the sustainability criteria (by using a mass balance verification system as detailed in Art. 18.) and may require them to arrange for an independent auditing of the information submitted (providing evidence that this has been done)..

Timelines

- ▶ Entry into force: 25/06/2009.
- ▶ Date of transposition: 05/12/2010 (deadline).

- ▶ Commission adopting template for national renewable energy action plans: 30 June 2009 (deadline).
- ▶ Member States publishing and notifying to the Commission the forecast document (see previous section): 6 months before national renewable energy plan is due.
- ▶ Member States notify their national renewable energy action plans to the Commission: 30 June 2010 (deadline).
- ▶ Member States submit an amended national renewable energy action plan to the Commission (if share of energy from renewable sources fell below the indicative trajectory as determined by Directive): 30 June 2011 (deadline).
- ▶ Member States submit 1st their report to the Commission on progress in the promotion and use of energy from renewable sources: 31 December 2011 (deadline)
- ▶ Member States submit reports to the Commission on progress: every two years. Last report (6th) submission: 31 December 2021 (deadline).
- ▶ Member States notifying the Commission on agreements reached with other Member States on statistical transfers and joint support schemes: no later than three months after the end of each year in which they have effect (first case) and within three months of the end of each year (second mechanism).
- ▶ Member States review and take measures to improve the frameworks and rules for transmission/distribution system operators to bear and share costs to ensure the integration of new producers: by 30 June 2011 and every two years thereafter.
- ▶ Member States submitting information to the Commission (to be published by on the transparency platform) on the reliable information submitted by economic operators on the fulfilment of the sustainability criteria for biofuels and bioliquids.
- ▶ Member States submitting the Commission report on areas of their territories (NUTS) where typical GHG emissions from cultivation of agricultural raw materials are presumable lower than or equal to the emissions reported in Directive (see Disaggregated default values for cultivation): March 2010.
- ▶ Commission reporting to the European Parliament and the Council on analysis and action plan on energy from renewable source: 1 December 2010.
- ▶ Commission presenting, if appropriate a) proposal permitting, subject to certain conditions, the whole amount of the electricity originating from renewable sources used to power all types of electric vehicles to be considered; b) proposal for a methodology for calculating the contribution of hydrogen originating from renewable sources in the total fuel mix: December 2011 (deadline).
- ▶ Commission reporting to the European Parliament and the Council regarding (third countries/Member States significant source of biofuels/raw material for biofuels) on national measures taken to respect the sustainability criteria in Directive for soil, water and air protection: every two years (first report in 2012).
- ▶ Commission reporting to the European Parliament and the Council regarding social/development issues linked to biofuels in the Community/third countries (impact on social sustainability in the Community of increased demand for biofuel, foodstuffs at affordable prices in developing countries, land-use rights, ratification of ILO Conventions, Cartagena Protocol and CITES Convention): every two years (first report in 2012).

- ▶ Commission reporting to the European Parliament and the Council regarding the effectiveness of the existing system for providing information on sustainability criteria on biofuels and the feasibility and appropriateness of introducing mandatory requirements in relation to air, soil or water protection: 31 December 2012.
- ▶ Commission submitting report to the European Parliament and the Council (regarding a review of the minimum GHG saving (biofuels) based on impact assessment; on measures to achieve share of energy from renewable sources of 10 % for transport; on the cooperation mechanisms): 31 December 2014.
- ▶ Commission presenting Renewable Energy Roadmap for the post-2020 period: 2018.
- ▶ Commission presenting a Report on the implementation of the Directive: 2021.

Integration/coordination issues with other related pieces of legislation

- ▶ The Directive contributes to one of the 20-20-20 targets set up in the EU's 2020 climate & energy package (which are: 20% energy of EU energy from renewables, 20% cut in GHG emissions –from 1990 levels–, 20% improvement in energy efficiency).

Provisions of the Directive refer to the following instruments:

- ▶ Council Regulation (EC) No 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers, amending Regulations (EC) No 1290/2005, (EC) No 247/2006, (EC) No 378/2007 and repealing Regulation (EC) No 1782/2003
- ▶ Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (Text with EEA relevance)
- ▶ European Parliament resolution of 25 September 2007 on the Roadmap for Renewable Energy in Europe (2007/2090(INI))
- ▶ 2007/742/EC: Commission Decision of 9 November 2007 establishing the ecological criteria for the award of the Community eco-label to electrically driven, gas driven or gas absorption heat pumps (notified under document number C(2007) 5492)
- ▶ Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC
- ▶ Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications.
- ▶ Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of ecodesign requirements for energy-using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council
- ▶ Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC.
- ▶ Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.

- ▶ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC.
- ▶ Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC – Statements made with regard to decommissioning and waste management activities.
- ▶ Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings.
- ▶ 1999/468/EC: Council Decision of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission.
- ▶ Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC.
- ▶ Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.
- ▶ The Energy Community Treaty.

Others:

- ▶ CDM of the Kyoto Protocol, under the conditions set out in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community (17), for reductions in the fuel supply sector.
- ▶ Conventions of the International Labour Organisation (ILO): 29, 87, 98, 100, 105, 111, 138 and 182.
- ▶ Cartagena Protocol on Biosafety.
- ▶ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- ▶ Ramsar Convention: Convention on Wetlands of International Importance.
- ▶ Instruments citing the Directive:
- ▶ [Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure Text with EEA relevance](#)
- ▶ [Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning](#)
- ▶ [Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC](#)
- ▶ [Directive 2009/72/EC](#) of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

- ▶ [Directive 2012/27/EU](#) of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC
- ▶ [Directive 2011/65/EU](#) of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- ▶ [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
- ▶ [Council Directive \(EU\) 2015/652](#) of 20 April 2015 laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels
- ▶ [Council Directive 2013/18/EU](#) of 13 May 2013 adapting Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, by reason of the accession of the Republic of Croatia
- ▶ [Directive 2009/30/EC](#) of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC
- ▶ [Regulation \(EU\) No 347/2013](#) of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009
- ▶ [Commission Regulation \(EU\) No 1307/2014](#) of 8 December 2014 on defining the criteria and geographic ranges of highly biodiverse grassland for the purposes of Art. 7b(3)(c) of Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and Art. 17(3)(c) of Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources
- ▶ [Commission Regulation \(EU\) No 702/2014](#) of 25 June 2014 declaring certain categories of aid in the agricultural and forestry sectors and in rural areas compatible with the internal market in application of Art.s 107 and 108 of the Treaty on the Functioning of the European Union
- ▶ [Commission Regulation \(EU\) No 651/2014](#) of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Art.s 107 and 108 of the Treaty
- ▶ [Commission Regulation \(EU\) No 513/2013](#) of 4 June 2013 imposing a provisional anti-dumping duty on imports of crystalline silicon photovoltaic modules and key components (i.e. cells and wafers) originating in or consigned from the People's Republic of China and amending Regulation (EU) No 182/2013 making these imports originating in or consigned from the People's Republic of China subject to registration

- ▶ [Commission Regulation \(EU\) No 601/2012](#) of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council
- ▶ [Commission Regulation \(EU\) No 1014/2010](#) of 10 November 2010 on monitoring and reporting of data on the registration of new passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council
- ▶ [Commission Decision 2010/335](#) of 10 June 2010 on guidelines for the calculation of land carbon stocks for the purpose of Annex V to Directive 2009/28/EC (notified under document C(2010) 3751)
- ▶ [Commission Decision 2009/548/EC](#) of 30 June 2009 establishing a template for National Renewable Energy Action Plans under Directive 2009/28/EC of the European Parliament and of the Council (notified under document number C(2009) 5174)
- ▶ [Commission Decision 2013/114/EU](#) of 1 March 2013 establishing the guidelines for Member States on calculating renewable energy from heat pumps from different heat pump technologies pursuant to Art. 5 of Directive 2009/28/EC of the European Parliament and of the Council (notified under document C(2013) 1082)

Coordination issues with the EU Biodiversity Strategy

Closely linked to target 1 (Fully implement the Birds and Habitats Directives) due to the restrictions introduced by amending Regulation (Commission Regulation (EU) No 1307/2014) on the areas for the extraction of raw material for biofuels and bioliquids from highly biodiverse grassland.

Art. 17.3 of the Directive 2009/28/EC sets up sustainability criteria for biofuels and bioliquids establishing restrictions on the areas for the extraction of raw material: “3. Biofuels and bioliquids [...] shall not be made from raw material obtained from land with high biodiversity value, namely land that had one of the following statuses in or after January 2008, whether or not the land continues to have that status:(a) primary forest and other wooded land, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed;(b) areas designated:(i) by law or by the relevant competent authority for nature protection purposes; or(ii) for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the second subparagraph of Art. 18(4); unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes; (c) highly biodiverse grassland that is: (i) natural, namely grassland that would remain grassland in the absence of human intervention and which maintains the natural species composition and ecological characteristics and processes; or (ii)non-natural, namely grassland that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded, unless evidence is provided that the harvesting of the raw material is necessary to preserve its grassland status. The Commission shall establish the criteria and geographic ranges to determine which grassland shall be covered by point (c) of the first subparagraph. Those measures, designed to amend

non-essential elements of this Directive, by supplementing it shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Art. 25(4).”

Commission Regulation (EU) No 1307/2014 defines the criteria and geographic ranges of highly biodiverse grassland for the purposes of (among other related Directives) of Directive 2009/28/EC. Sets up that the following geographic ranges of the European Union shall always be regarded as highly biodiverse grassland: “(1) habitats as listed in Annex I (Natural habitat types of Community Interest whose conservation requires the designation of special areas of conservation) to [Council Directive 92/43/EEC](#); (2) habitats of significant importance for animal and plant species of Union interest listed in Annexes II (animal and plant species of community interest whose conservation requires the designation of special areas of conservation) and IV (animal and plant species of community interest in need of strict protection) to Directive 92/43/EEC; (3) habitats of significant importance for wild bird species listed in Annex I to [Directive 2009/147/EC](#).”

Relevance to ecosystems/habitats?

Case of biofuels/bioliquids. Protected: 1. highly biodiverse grasslands; 2. primary forest and other wooded land; 3. legally protected natural areas and designated areas for the protection of rare, threatened or endangered ecosystems or species (recognised by international agreements or included in lists drawn up by intergovernmental organisations or the IUCN); 4. Areas with high carbon stock (e.g. wetlands, Art. 17.4).

Ecosystems are affected that are not specifically protected. Protected: Terrestrial due to restrictions on the areas for the extraction of raw material for biofuels and bioliquids from highly biodiverse grassland (see amending [Commission Regulation \(EU\) No 1307/2014](#)) and Directive 2009/28/EC from primary forest and other wooded land; areas designated: (i) by law or by the relevant competent authority for nature protection purposes; or (ii) for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature. The legal text considers the links between Renewable energy and aquatic biodiversity and ecosystem services: *Wetlands* (“land that is covered with or saturated by water permanently or for a significant part of the year” as one type of lands with “high carbon stock”, that had that status in January 2008 and no longer has that status) are specifically mentioned as non-allowed source for raw material for biofuels and bioliquids (Art. 17.4). Apart from that when concluding bilateral/multilateral agreements with third countries containing provisions on sustainability criteria (compliance with the sustainability criteria for biofuels and bioliquids) the Community will give (Art. 18.4) “due consideration to measures taken for the conservation of areas that provide, in critical situations, basic ecosystem services (such as watershed protection and erosion control)”. The Directive also recognises (77) the need to take into account (where appropriate) the Millennium Ecosystem Assessment due the value of its data for data for conservation of at least areas providing basic ecosystem services in critical situations (e.g. *watershed protection and erosion control*). Besides, reports submitted by each Member State to the Commission (every 2 years) on the progress in the promotion and use of energy from renewable sources should include estimations on the impact of the production of biofuels and bioliquids on

<p>biodiversity, water resources, water quality and soil quality within the Member State (Art. 22j).</p>
<p>Drivers</p>
<p>The term ‘drivers’ is not specifically mentioned in the Directive. Drivers that the legal act/policy address: Transport (road vehicles, and non-road mobile machinery –including inland waterway; vessels when not at sea–, agricultural and forestry tractors, and recreational craft when not at sea): fuel consumption; Agriculture (for producing biofuels); Energy (electricity generation); Heating and cooling (urban district, industry, households, services, agriculture, forestry and fisheries: for heating, cooling and processing purposes). No indicators used</p>
<p>Pressures</p>
<p>Word ‘pressure’ is not specifically mentioned in the Directive. Pressures that the legal act/policy address: Gas emissions (greenhouse –CO₂, CH₄ and N₂O– and other nature) from the combustion of transport fuels (petrol, diesel and gas–oil); (Direct/indirect) Land use change (due to biofuels production) leading to (impacts): loss of natural vegetation, fragmentation of ecosystems, greenhouse gas emissions, abstraction of water for crop irrigation, increased nutrient load due to the use of fertilizers. No indicators used</p>
<p>Assessment of Environmental State</p>
<p>Policy does not define the environmental condition of ecosystems in strict sense. Relevant terms/parameters to be measured in indicators: Annex I sets up national overall targets for the share of energy from renewable sources in gross final consumption of energy in 2020 (in %); Annex III sets up the energy content (by weight, lower calorific value, MJ/kg and MJ/l) of transport fuels; Annex V: determines the rules for calculating the greenhouse impact of biofuels, bioliquids and fossil fuels. Includes among others: a) typical and default values for biofuels if produced with no net carbon emissions from land–use change (typical GHG emissions saving and default GHG emission savings –in%–); b) disaggregated default values for biofuels and bioliquids: for cultivation, for processing, for transport and distribution and with typical GHG emissions saving and default GHG emission savings –in gCO_{2eq}/MJ–); c) estimated disaggregated default values for advanced biofuels and bioliquids: for cultivation, for processing, for transport and distribution and with typical GHG emissions saving and default GHG emission savings –in gCO_{2eq}/MJ–).</p>
<p>Assessment of Status</p>
<p>The legal text reports on the origin of the biofuels and bio liquids consumed in the Community and the impact of their production also in third countries of supply (Art. 23.5), the Commission will analyse, among other issues: (a) the relative environmental benefits and costs of different biofuels, the effects of the Community’s import policies thereon and (b) the impact of increased demand for biofuel on sustainability in the Community and in third countries, considering economic and environmental impacts, including impacts on biodiversity; f) indirect land–use changes in relation to all production pathways. At a national</p>

level, Member States have to report as well on the estimated impact of the production of biofuels and bioliquids on biodiversity, water resources, water quality and soil quality within the Member State (Art. 22.f).

Data

MS have to submit their National Plans and periodic reports (every 2 years) on progress in the promotion and use of energy from renewable sources. [Progress Reports are available at the EC Website on the Directive.](#) [Information requested include:](#)

- ▶ Sectoral and overall shares and actual consumption of energy from renewable sources.
- ▶ Measures taken and/or planned at national level to promote the growth of energy from renewable sources taking into account the indicative trajectory for achieving the national RES targets as outlined in the National Renewable Energy Action Plan (NREAP)
- ▶ Support schemes and other measures in place that are applied to promote energy from renewable sources and report on any developments in the measures used with respect to those set out in the (NREAP)
- ▶ Information on how, where applicable, the support schemes have been structured to take into account RES applications that give additional benefits, but may also have higher costs, including biofuels made from wastes, residues, non-food cellulosic material, and ligno-cellulosic material?)
- ▶ Information on the functioning of the system of guarantees of origin for electricity and heating and cooling from RES, and the measures taken to ensure reliability and protection against fraud of the system.
- ▶ The developments in the availability and use of biomass resources for energy purposes.
- ▶ Information on any changes in commodity prices and land use in the MS associated with increased use of biomass and other forms of energy from renewable sources
- ▶ Development and share of biofuels made from wastes, residues, non-food cellulosic material, and lingo-cellulosic material
- ▶ Information on the estimated impacts of the production of biofuels and bio liquids on biodiversity, water resources, water quality and soil quality within your country.
- ▶ Estimation of the net greenhouse gas emission savings due to the use of energy from renewable sources
- ▶ Information on and estimate (for the following years up to 2020) the excess/deficit production of energy from renewable sources compared to the indicative trajectory which could be transferred to/imported from other Member States and/or third countries, as well as estimated potential for joint projects until 2020.
- ▶ Information on how the share for biodegradable waste in waste used for producing energy has been estimated, and what steps have been taken to improve and verify such estimates.

Funding

Investment support by means of EAFRD (European Agricultural Fund for Rural Development) and the ERDF (European Regional Development Fund). Within the [framework of MFF](#) (Multiannual Financial Framework–European Commission) Member States have to devote between 12–20% of the of the ERDF budget to support low-carbon economy shift (this includes RES as well).

Communication from the Commission — [Guidelines on State aid for environmental protection and energy 2014–2020](#), sets up aids to energy from renewable sources (section 3.3.): 1. Operating aid granted to energy from renewable sources: Aid for electricity from renewable energy sources, aid for energy from renewable sources other than electricity, aid for existing biomass plants after plant depreciation, aid granted by way of certificates. 2. Energy efficiency measures, including cogeneration and district heating and district cooling.

Related: 3.7. Aid in the form of reductions in or exemptions from environmental taxes and in the form of reductions in funding support for electricity from renewable sources. 1. Aid in the form of reductions in or exemptions from environmental taxes; 2. Aid in the form of reductions in the funding of support for energy from renewable sources; 3. Transitional rules for aid granted to reduce the burden related to funding support for energy from renewable sources; 4. Aid to energy infrastructure;

Framework programs, funds from the European Investment Bank and other public finance institutions, a risk sharing facility for investments in energy from renewable sources in the Community (similar to the Global Energy Efficiency and Renewable Energy Fund initiative aimed at third countries) and national funding.

About AQUACROSS

Knowledge, Assessment, and Management for AQUATIC Biodiversity and Ecosystem Services across EU policies (AQUACROSS) aims to support EU efforts to protect aquatic biodiversity and ensure the provision of aquatic ecosystem services. Funded by Europe's Horizon 2020 research programme, AQUACROSS seeks to advance knowledge and application of ecosystem-based management (EBM) for aquatic ecosystems to support the timely achievement of the EU 2020 Biodiversity Strategy targets.

Aquatic ecosystems are rich in biodiversity and home to a diverse array of species and habitats, providing numerous economic and societal benefits to Europe. Many of these valuable ecosystems are at risk of being irreversibly damaged by human activities and pressures, including pollution, contamination, invasive species, overfishing and climate change. These pressures threaten the sustainability of these ecosystems, their provision of ecosystem services and ultimately human well-being.

AQUACROSS responds to pressing societal and economic needs, tackling policy challenges from an integrated perspective and adding value to the use of available knowledge. Through advancing science and knowledge; connecting science, policy and business; and supporting the achievement of EU and international biodiversity targets, AQUACROSS aims to improve ecosystem-based management of aquatic ecosystems across Europe.

The project consortium is made up of sixteen partners from across Europe and led by Ecologic Institute in Berlin, Germany.

AQUACROSS PARTNERS

Ecologic Institute (ECOLOGIC) | Germany

Leibniz Institute of Freshwater Ecology and Inland Fisheries (FVB-IGB) | Germany

Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO) | France

Wageningen Marine Research (WMR) | Netherlands

University of Natural Resources & Life Sciences, Institute of Hydrobiology and Aquatic Ecosystem Management Austria

Fundación IMDEA Agua (IMDEA) | Spain

Universidade de Aveiro (UAVER) | Portugal

ACTeon – Innovation, Policy, Environment (ACTeon) | France

University of Liverpool (ULIV) | United Kingdom

University College Cork, National University of Ireland (UCC) | Ireland

Royal Belgian Institute of Natural Sciences (RBINS) | Belgium

Stockholm University, Stockholm Resilience Centre (SU-SRC) | Sweden

Danube Delta National Institute for Research & Development (INCDDD) | Romania

Eawag – Swiss Federal Institute of Aquatic Science and Technology (EAWAG) | Switzerland

International Union for Conservation of Nature (IUCN) | Belgium

BC3 Basque Centre for Climate Change (BC3) | Spain

Contact Coordinator

aquacross@ecologic.eu

Duration

Dr. Manuel Lago, Ecologic Institute
1 June 2015 to 30 November 2018

Website

Twitter

LinkedIn

ResearchGate

<http://aquacross.eu/>

[@AquaBiodiv](https://twitter.com/AquaBiodiv)

www.linkedin.com/groups/AQUACROSS-8355424/about

<https://goo.gl/lcdtZC>