

Manual of European Environmental Policy

The following pages are a section from the Manual of European Environmental Policy written by the Institute for European Environmental Policy.

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This section is the text of the Manual as published in 2012. It is therefore important to note the following:

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Promotion of the use of energy from renewable sources

Formal reference	
2009/28/EC (OJ L140 5.6.2009)	Directive on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC
Legal base	Articles 192 and 114 TFEU (originally Article 175 and 95 TEC)
Binding dates	
Transposition	5 December 2010
Commission adopt template for National renewable energy action plans	30 June 2009
Member States notify Commission of National renewable energy action plans	30 June 2010
Member States report on progress	31 December 2011 and every two years thereafter until 31 December 2021
Commission reports to the Parliament and the Council	2012 and every two years hereafter
Repeal of Article 2, Articles 3(2), (3) and (5), and Articles 5 and 6 of Directive 2003/30/EC	1 April 2010
Repeal of Article 2, Article 3(2), and Articles 4, 5, 6, 7 and 8 of Directive 2001/77/EC	1 April 2010
Repeal of Directives 2001/77/EC and 2003/30/EC	1 January 2012
Commission presents renewable energy roadmap for the post-2020 period	2018
Commission presents review application of Directive	2021
2009/548/EC (OJ L182 15.7.2009)	Commission Decision establishing a template for National Renewable Energy Action Plans under Directive 2009/28/EC of the European Parliament and the Council
2010/335/EU (OJ L151 17.6.2010)	Commission Decision on guidelines for the calculation of land carbon stocks for the purpose of Annex V to Directive 2009/28/EU

Purpose of the Directive

The general objective of the Directive is to achieve a 20 per cent share of energy from renewable sources in the Community's gross final consumption of energy and a 10 per cent share of energy from renewable sources in each Member State's transport energy consumption by 2020. The Directive establishes a common framework for the promotion of energy from renewable sources. It 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. It 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.

Summary of the Directive

This is a wide-ranging Directive, the ambition of which was to bring together the concerns of previous legislation on renewable electricity (Directive [2001/77/EC](#) on promotion of energy from renewable sources and Directive [2003/30/EC](#) on biofuels) and to go beyond this in order to provide a comprehensive Directive on the use of all renewable energy sources.

Mandatory national overall targets and measures for the use of energy from renewable sources (Article 3)

The Directive sets out mandatory minimum targets for the share of energy from renewable sources in relation to gross final energy consumption by 2020 compared to 2005 (Table 1). Article 3(1) states that in order to achieve the targets more easily, Member States shall encourage energy efficiency. Article 3(2) requires Member States to introduce measures designed to ensure that the share of energy from renewable sources equals or exceeds that shown in the indicative trajectory set out in part B of Annex I of the Directive. Essentially that for any given Member State, 20 per cent of the target should be achieved as an average of the two-year period 2011–2012, 30 per cent over the period 2013–2014, 45 per cent over the period 2015–2016 and 60 per cent over the period 2017–2018.

These overall targets for the proportion of energy from renewable sources can be achieved through either Member State support schemes, or through measures of cooperation between Member States and with third countries. These different measures of cooperation are set out in Articles 6–11 of the Directive.

Article 3(4) lays down a mandatory sector specific sub-target for transport of 10 per cent of final energy consumption in all forms of transport by 2020.

Table 1. National overall target for the share of energy from renewable sources in gross final consumption of energy in 2020.

Member State	2005	2020
Belgium	2.2	13
Bulgaria	9.4	16
Czech Republic	6.1	13
Denmark	17.0	30
Germany	5.8	18
Estonia	18.0	25
Ireland	3.1	16
Greece	6.9	18
Spain	8.7	20
France	10.3	23
Italy	5.2	17
Cyprus	2.9	13
Latvia	32.6	40
Lithuania	15.0	23
Luxembourg	0.9	11
Hungary	4.3	13
Malta	0.0	10
Netherlands	2.4	14
Austria	23.3	34
Poland	7.2	15
Portugal	20.5	31
Romania	17.8	24
Slovenia	16.0	25
Slovak Republic	6.7	14
Finland	28.5	38
Sweden	39.8	49
United Kingdom	1.3	15

National renewable energy action plans

Article 4 requires Member States to adopt a national renewable energy action plan. This should conform to a binding template, the details of which, the Commission is required to produce by 30 June 2009. This is fulfilled through Decision 2009/548/EC establishing a template for National Renewable Energy Action Plans. Member States are required to notify their national renewable energy action plans to the Commission by 30 June 2010. Member States are also required to publish and notify to the Commission a forecast document six months before the national renewable energy action plans are due.

If a Member State fails to meet the target set out in the indicative trajectory, it must submit an amended national renewable energy action plan to the Commission by the 30 June the following year which sets out how the trajectory will be rejoined, although if this is only by a limited margin, the Commission can release the Member State from this obligation.

Although the Commission does not have the power to reject an action plan, it is required to evaluate the action plans, and can issue a recommendation in relation to an action plan (or an amended action plan).

Action plans, amended plans, forecast documents as well as any recommendations must be made available through the transparency platform referred to in Article 24(2) of the Directive.

Measures of cooperation

Articles 6–11 set out the measures of cooperation with other Member States and third countries that Member States may use, in addition to support schemes, to reach the overall target for renewable energy. These include statistical transfers between Member States (Article 6), joint projects between Member States (Articles 7 and 8), joint support schemes (Article 11) and joint projects between Member States and third countries (Articles 9 and 10).

Administrative procedures, regulations and codes

Article 13 sets out a number of requirements on Member States designed to reduce the barriers to renewable energy by improving of authorization, certification and licensing procedures. Member States are also required clearly to define the technical specifications which must be met by renewable energy equipment and systems in order to benefit from support schemes. Member States are required to recommend to all actors, and in particular to local and regional administrative bodies, that they ensure that the equipment and systems facilitating the use of renewable energy is installed when planning, designing, building and renovating industrial or residential areas. A special mention is made of the inclusion of heating and cooling from renewable energy sources in the planning of city infrastructure.

Significant attention is paid to buildings in Article 13. Member States are required to introduce appropriate measures in their building regulations and codes in order to increase the share of all kinds of energy from renewable sources in the building sector. By 31 December 2014, Member States must require minimum levels of energy from renewable sources in new buildings and existing buildings that are subject to major renovation. The public sector must lead, and Member States are required to ensure that new public buildings and existing public buildings subject to major renovation fulfil an exemplary role in respect of the Directive from 1 January 2012. In relation to the requirements set out in building regulations and codes, Member States are required to promote the use of renewable energy heating and cooling systems and equipment that achieve a significant reduction of energy consumption, and are required to use energy or eco-labels or other appropriate certificates or standards as the basis for encouraging such systems and equipment. The Directive sets out minimum specifications in relation to biomass, heat pumps (already established through eco-label) and solar thermal energy. Member States are required to use Community or, if these do not exist, international procedures for establishing conversion efficiency and the input/output ratio of systems and equipment.

Information and training

Article 14 sets out requirements on Member States in relation to information and training. Member States are required to ensure that information on support measures is made available to all relevant actors, and that information on the net benefits, cost and energy, efficiency of

equipment and systems for the use of heating, cooling and electricity from renewable energy sources is made available either by suppliers or by the national competent authorities. Certification schemes or equivalent qualification schemes must be available from 31 December 2012 for installers of small-scale biomass boilers and stoves, solar photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps. Annex IV sets out the criteria for installer certification schemes. Guidance must be made available to all relevant actors, notably planners and architects, so that they are able properly to consider the optimal combination of renewable energy sources, of high-efficiency technologies and of district heating and cooling when planning, designing building and renovating industrial or residential areas. Finally information, awareness raising, guidance or training programmes must be developed to inform citizens of the benefits and practicalities of developing and using energy from renewable resources.

Guarantees of origin of electricity, heating and cooling produced from renewable energy sources

Article 15 sets out provisions in relation to guarantees of origin. Member States are required to ensure that electricity produced from renewable energy sources can be guaranteed in accordance with objective, transparent and non-discriminatory criteria. Member States may also arrange for guarantees of origin to be issued for heating and cooling produced from renewable sources. The sole purpose of the guarantees of origin stated in the recitals (52) of the Directive is to prove to the final customer that a given share or quantity of energy was produced from renewable sources.

Access to and operation of the grids

Article 16 requires Member States to take appropriate steps to develop the grid to be able to absorb the expected growth in electricity from renewable energy sources. It also requires them to accelerate authorization procedures, to guarantee transmission and distribution of green electricity and to provide priority or guaranteed grid access.

Member States must require transmission system and distribution system operators to make public their rules for the bearing and sharing of the costs of technical adaptations necessary for the integration of renewable energy producers. Such rules must meet certain standards and will be subject to review by Member States. The first review is due on 30 June 2011, and similar reviews should take place every two years after that. Member States may, but are not required to, mandate that transmission system and distribution system operators bear part of or all of the costs relating to the technical adaptations necessary for the integration of renewable energy producers.

The Directive also seeks to lower the risk of investment by renewable energy producers by requiring Member States to ensure that transmission system and distribution system operators provide new producers of renewable energy with information relating to the costs associated with connection, the timetable for receiving and processing requests for grid connection, a timetable for grid connection.

Member States are also required to ensure that transmission and distribution tariffs do not discriminate against electricity or gas from renewable sources.

They are moreover required to assess the need to extend existing gas network infrastructure to facilitate the integration of gas from renewable sources, and to report in their national renewable energy action plans, on the necessity to build new infrastructure for district heating and cooling from renewable energy sources.

Biofuels and bioliquids

Articles 17–19 cover sustainability criteria for biofuels and bioliquids and the calculation of greenhouse gas impacts of biofuels and bioliquids. Article 17(2–6) lays down a set of sustainability criteria that biofuels and bioliquids have to fulfil in order to count towards national targets, renewable energy obligations, and in order to be eligible for financial support. This is to ensure that the potential negative impacts associated with biofuels and bioliquids are prevented. The provisions cover both biofuels and bioliquids produced inside the Community, as well as those imported into the Community. Article 17(2) lays down the requirements for how much greenhouse gas emission savings should result from the substitution of conventional fuels with biofuels and bioliquids for those to be able to count towards the targets and obligations, and to be eligible for financial support. This should be at least 35 per cent, moving to 50 per cent by 1 January 2017. From 1 January 2018 it must be at least 60 per cent from biofuels and bioliquids produced in installations where production started on or after 1 January 2017. Article 19 sets out the methodology for calculating greenhouse gas emission savings.

Article 17(3) seeks to protect land with high biodiversity value. The Directive defines what is meant by high biodiversity value in this context by reference to the kind of status attributed to that land in or after January 2008, whether or not that status was retained. Three different types of status are discussed: primary forest or other wooded land where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed; areas already designated for nature protection purposes or for the protection of rare, threatened or endangered ecosystems or species; and highly biodiverse grasslands. The Directive requires the Commission to establish, through the regulatory procedure with scrutiny process, the criteria and geographic ranges which will determine what grasslands shall be considered as highly biodiverse. Article 17(4) requires that biofuels and bioliquids must not be taken from land with high carbon stock such as wet lands and certain types of forested areas. Bioenergy production on peatlands is also prohibited, unless evidence is provided that the cultivation and harvesting of peat did not involve the drainage of previously undrained soil. Agricultural raw materials can only be used for the production of biofuels and bioliquids if they fulfil criteria set out in Council Regulation (EC) No 73/2009. The Commission is required to report to the Parliament and the Council on national measures taken to respect the sustainability criteria set out in the Directive, and in relation to the protection of soil, water and air.

The first report is due in 2012, and should be submitted every two years after that. It applies to Member States and third countries that are a significant source of biofuels. Similarly, the Commission is required to report on the social sustainability both internally and externally of increased demand for biofuel, in particular in relation to food prices, wider development issues, land-rights and the extent to which source countries have ratified and implemented eight different conventions of the International Labour Organizations. The Commission must also include information on whether the source country has ratified and implemented the Cartagena Protocol on Biosafety and the [Convention on International Trade in Endangered Species of Wild Flora and Fauna](#) (see section on trade in endangered species). This report is

also due in 2012, and to be published every two years thereafter. Finally, the Commission is also required to report by 31 December 2009 on the requirements for a sustainability scheme or energy uses of biomass other than biofuels and bioliquids.

Article 18 lays down provisions for the verification of compliance with the sustainability criteria for biofuels and bioliquids. Member States must require economic operators to show that these sustainability criteria have been fulfilled. The Directive also specifies a mass balance verification method which must be used by economic operators. The Commission is required to report on this to the Parliament and the Council during 2010 and 2012 and on the potential for allowing other verification methods. Member States are required to ensure that economic operators submit reliable information and that this is available to the Member State on request. They must also require economic operators to be independently audited. The information produced in support of verification must be submitted by Member States to the Commission in aggregated form and the Commission must publish this on the transparency platform provided for in Article 24.

Article 18(4) requires the Community to endeavour to conclude bilateral or multilateral agreements with third countries corresponding to the sustainability criteria in the Directive. It gives the Commission the power to decide that such agreements demonstrate that biofuels and bioliquids produced in the countries concerned have been produced in accordance with the Directive. The Commission may also decide that voluntary or international schemes setting standards for the production of bioenergy products contain accurate data for the purposes of establishing that the products conform to the sustainability criteria set out in the Directive. Such decisions must be taken in accordance with the advisory procedure referred to in Article 25(3) of the Directive. The implication is that when an economic operator provides data obtained in agreement with one of the schemes so recognized by the Commission, the Member State should not request additional information already covered by such an agreement. The Commission is required to examine the application of Article 17 in relation to a source of biofuels and bioliquids within six months of a request to do so. This can be done either on the Commission's own initiative, or on the initiative of a Member State. By 31 December 2012, the Commission is required to report on the effectiveness of the verification system and whether it is feasible and appropriate to introduce mandatory requirements in relation to air, soil or water protection.

Article 19 sets out the provisions for calculating the greenhouse gas impact of biofuels and bioliquids.

Reporting and information sharing

Article 22 requires Member States to submit a report to the Commission on progress in the promotion and use of energy from renewable sources by 31 December 2011 and every two years thereafter until 31 December 2021. The Directive sets out 14 areas that have to be covered in this report (16 in the first). As noted above, Decision 2009/548/EC sets out a detailed template for these National Renewable Energy Action Plans. Article 23 sets out the extensive monitoring and reporting requirements on the Commission.

Article 24 requires the Commission to establish an online transparency platform, to increase transparency, and to facilitate cooperation among Member States, in particular in relation to statistical transfers (Article 6) and joint projects (Articles 7 and 9) as well as Commission reports and Member State reports required under the Directive. Information can be presented

in aggregate form to protect the confidentiality of commercially sensitive information, and Member States can ask for certain aspects of their forecast documents and national reports not to be published.

Article 25 provides for two Committees to assist the Commission: the Committee on Renewable Energy Sources and the Committee on the Sustainability of Biofuels and Bioliquids. Some aspects of the Directive are governed by the regulatory procedure with scrutiny (Council Decision 1999/468/EC).

Transition measures

The Directive repeals Directive [2001/77/EC](#) and Directive [2003/30/EC](#) (see section on promotion of the use biofuels or other renewable fuels for transport) from 1 January 2012. In the meantime, certain Articles and parts of Articles are repealed from 1 April 2010. For Directive 2001/77/EC all of Articles 2 and 5, relating to definitions and the scope of the Directive, are repealed with effect from 1 April 2010. Certain paragraphs under Article 3, relating to national indicative targets, are also repealed. In particular, the requirements to publish five-yearly reports on targets, measures and progress made in relation to electricity from renewable sources. Also repealed with effect from 1 April 2010 is Article 4, relating to support schemes, Article 5, relating to guarantees of origin, Article 6, relating to administrative procedures, Article 7, relating to the grid system and Article 8, relating to the Commission summary report. With regard to Directive 2003/30/EC, all of Article 2 (relating to definitions), and certain parts of Article 3 (defining the forms biofuels may be made available in; on the use of biofuels in diesel blends; and on the provision of information on the availability of biofuels and other renewable fuels) are repealed from 1 April 2010, as is all of Article 6 relating to the Committee to assist the Commission under regulatory procedure.

Development of the Directive

The EU has had a Community level target for renewable energy since 1997: 12 per cent of gross inland consumption by 2010. While some progress was made, by 2006, the EU looked unlikely to reach this target ([COM\(2006\)848](#)). At its meeting in March 2006, the European Council called for an Energy Policy for Europe (EPE) based on three objectives: security of supply, competitiveness and environmental sustainability. The Council called on the Commission to consider how to further to promote renewable energies over the long-term, with particular reference to raising the overall share to 15 per cent, and the use of biofuels in the transport sector to 8 per cent by 2015. The Council also called for the proposals in the Biomass Action Plan in all of its three sectors (heating and cooling, electricity and transport) to be taken forward. Finally, the Council called for the mitigation of legislative and administrative obstacles to renewable energy by facilitating access to grid, cutting administrative red-tape and ensuring the transparency, effectiveness and certainty of support policies¹. Later that year, in December, the European Parliament called for a 25 per cent target for renewable energy in the EU's overall energy consumption by 2020².

In January 2007, the Commission published a Renewable Energy Roadmap setting out a long-term vision for renewable energy in the EU. In the Roadmap, the Commission proposed an overall mandatory target of 20 per cent by 2020, as well as 10 per cent for biofuels in transport, set out a path way for mainstreaming renewables into EU energy policies and markets, and proposed a new legislative framework for the promotion and the use of

renewable energy in the EU to help deliver the targets (COM(2006)848, 10.1.2007). The Communication promised that proposals for legislation would be put forward in 2007.

In March 2007, the European Council endorsed the level of the targets proposed by the Commission, as well as their mandatory form, but also raising importance of sustainability criteria for biofuels³. This latter was also raised at two subsequent meetings of the Council in March 2008 and June 2008. In September, the European Parliament adopted a resolution on the Road Map. In the Resolution, the Parliament called on the Commission to present, by the end of 2007 at the latest, a proposal for a renewable energy legislative framework to be adopted by co-decision on the basis of Article 175(1) of the EC Treaty. Parliament stressed that this legislative framework should maintain existing legislation for the renewable electricity and biofuels sectors, but should be strengthened, improved and accompanied by ambitious legislation on increasing the share of renewable energy for heating and cooling. It further urged the Commission to propose a sectoral approach within the legislative framework, setting clear and realistic binding targets for the electricity, transport and heating and cooling sectors⁴.

In January 2008, the Commission published its proposal for a Directive on the promotion of the use of energy from renewable sources. This was presented in the context of a wider set of measures in the context of the Climate Action and Renewable Energy Package ([the CARE package](#)) (see section on overview of EU policy: Climate Change). In February 2008, following the Commission's presentation of the CARE package, the Council held a public policy debate, specifically focusing on the proposal for a renewable energy Directive. Member State delegations welcomed the proposal, and several delegations urged early adoption. Nevertheless the national targets proposed were considered to be very ambitious. Delegations considered that flexibility would be required on how to achieve them, as would increased public support for renewable energy and, certainty with respect to support schemes (including the guidelines on state aid for environmental protection). Delegations confirmed the importance of the indicative trajectories for reaching the targets, but that flexibility would also be needed. Solidarity was highlighted as another essential aspect as was the need to retain a balance between competitiveness, security of supply and sustainability. The importance of trade in guarantees of origin was underlined as a flexible instrument which should enable and not hinder Member States to reach their targets, as well as the continuation of current national support schemes for renewables. Delegates considered the contribution of energy efficiency to be essential to achieve the objectives. With respect to biofuels, there was broad support for ambitious sustainability criteria, with several delegations indicating that sustainability criteria should apply to all forms of biomass, and that consistency between the renewables Directive and the fuel quality Directive would be essential⁵.

In June 2008, the Council Presidency presented a progress report on the CARE package to the Energy and well as the Environment Council formations. The report highlighted the main outstanding issues in relation to all four legislative proposals in the CARE package. For the proposed Renewables Directive these included: targets (level of the national renewable energy targets, conditionality of the renewable transport fuel target and the indicative trajectory and its consequences), long lead-time projects, the systems of trading in guarantees of origin and reinforcing measures. One part of the report was devoted to the progress made on the sustainability criteria for biofuels. In February 2008, COREPER established an *ad hoc* working party to develop a common sustainability scheme for biofuels for the purposes of the renewables and fuel quality Directives. However, although, the working party made progress, some issues required further attention. These included the level and date of application of the

second stage for the minimum greenhouse gas emissions saving requirement, the environmental and social sustainability of biofuel production which would apply also in third countries and the methodology for calculating greenhouse gas emissions saving⁶.

In May 2008, a draft report brought together by the Committee on Industry, Research and Energy's rapporteur, Claude Turmes, was published. On 11 September 2008, the Committee adopted the draft report with some changes and proposed some 208 amendments to the Commission's legislative proposal. Between the Committee's report and the vote of Parliament in December, there was intense negotiation between the Commission, the Parliament and the Council to arrive at a compromise text. This was achieved, and thus the Parliament approved the amended proposal on 17 December 2008 reaching a first reading agreement with the Council under the co-decision procedure. The final text was adopted by the Council in April 2009 and published in the Official Journal in June 2009.

Implementation of the Directive

Information about the transposition of Directive 2009/28/EC can be found in their national [execution measures](#).

On 30 June 2009 the Commission adopted a Decision setting out the template for National Renewable Energy Action Plans required under the Directive. However, only Denmark and the Netherlands met the 30 June 2010 deadline for submission of their NREAP. By 7 July, seven more NREAP's had been submitted. By 31 March 2011 plans from all 27 Member States were available on the Commission's renewable energy website.

The provisions for ensuring that the replacement of conventional fuels with biofuels and bioliquids results in concrete reductions in greenhouse gas emission, and that potential negative consequences associated with such a replacement are avoided, are set out in Articles 17 and 18 of the Directive. Article 17 (2-6) sets out an ensemble of 'sustainability criteria' which define the minimum level of carbon reductions which replacement has to achieve (§2), types of land from which biofuels and bioliquids must not be taken if they are to count towards national renewable energy targets (§3-5), and the requirement that any agricultural raw materials produced in the Community used for the production of biofuels and bioliquids are to be produced in accordance with environmental requirements under Council Regulation (EC) No [73/2009](#) of 19 January 2009. Article 18 sets out how the compliance of economic operators with the 'sustainability criteria' just outlined, might be verified.

While the new Directive thus reinforced the push towards biofuels already embedded in Directive 2003/30/EC, and sought to put in place a set of provisions to guard against potential negative consequences and ensure that emission savings are actually made, several aspects of this system of safeguards still required elaboration and definition, moreover the extent to which emission savings could actually be made continues to be subject to controversy, resulting in continued debate about the merits of the biofuels target in general and the sustainability criteria in particular. The end of 2009 and 2010 saw the Commission continue to elaborate the detail of the system of sustainability safeguards.

Under Article 17(3) of the Directive, the Commission was required to establish (through the regulatory procedure with scrutiny process) the criteria and geographic ranges which determine what grasslands shall be considered as highly biodiverse and therefore be protected

under the Directive (through being excluded from counting towards national renewable energy targets). In December 2009, the Commission launched a consultation process to help it define what grasslands such ‘sustainability criteria’ should apply to. Stakeholders were required to submit responses by 8 February 2010. In June 2010, the Commission published two communications and one Decision relating to the implementation of the sustainability scheme.

Under Article 18 of the Directive (covering the verification of compliance with the sustainability criteria) the Commission can decide that voluntary or bilateral and multilateral agreements concluded by the EU contain accurate data concerning the sustainability criteria. The Commission can also add default values for new biofuels/bioliquid production methods and can update existing values. On 19 June 2010 the Commission released a Communication [2010/C 160/02](#) setting out how the Commission intends to carry out its responsibilities leading to such decisions.

Article 19 concerns the calculation of the greenhouse gas impact of biofuels and bioliquids. Alongside the Communication on voluntary schemes and default values, the Commission has also adopted a Communication [2010/C 160/01](#) to facilitate consistent implementation of the sustainability scheme by Member States, specifically in relation to the implementation of the counting rules for biofuels. This is non-binding and for guidance only.

Under Article 19(2) Member States were required to submit a report, by 31 March 2010, including a list of areas on their territory where GHG emissions from crop cultivation can be expected to be at, or below, average, as set out in Annex V, part D. The report is required to describe the method and data used. By March 2011, reports from all Member States except Greece were available on the Commission’s website.

Under Article 19(4) the Commission was required, by 31 March 2010, to submit a report to the European Parliament and to the Council on the feasibility of drawing up a list of areas in third countries with low greenhouse gas emissions from cultivation. The Commission published its report on 10 August 2010 ([COM\(2010\)427](#)).

Under Article 19(6) the Commission was required to submit a report to the European Parliament and the Council reviewing the impact of indirect land-use change on greenhouse gas emissions and addressing ways to minimise that impact. In July 2010, the Commission launched a public consultation to help inform the report. Responses were required by the end of October 2010. In addition to the main consultation document, the consultation package also included the release of four studies examining different dimensions of this complex problem.

Annex V of the Directive sets out the rules for calculating the greenhouse gas impact of biofuels, bioliquids and their fossil fuel comparators. Under Part C, point 10, of the Annex, the Commission was required, by 31 December 2009, to adopt guidelines for the calculation of land carbon stocks. On 10 June 2010 the Commission published Decision [2010/335/EU](#) addressing this requirement. This is an important building block in the sustainability scheme as it should, for example, enable the definition of areas of high carbon stock which may not be used as a source for biofuels/bioliquids. It should also facilitate the discussion around indirect land use change (ILUC).

To address the issue of ILUC, the Commission carried out a pre-consultation in July 2009 on potential policy options. Most industry, farmers' associations and overseas countries supported either no action or dealing with ILUC through wider policy action. Most NGOs supported the inclusion of ILUC within the existing greenhouse gas emission calculation for biofuels. Member States were divided on this issue. A second consultation in July 2010 sought views on whether analytical work undertaken provided a good basis for determining the significance of ILUC. Again views were divided on this. The Commission published a Communication ([COM\(2010\)811](#)) which noted the importance of ILUC, i.e. ILUC “can have an impact on greenhouse gas emissions savings associated with biofuels, which could reduce their contribution to the policy goals”, but that there were analytical limitations on setting values to emissions. Others have questioned whether ILUC emissions undermine the whole basis for use of biofuels to meet the targets in the Directive⁷. The Commission would continue to examine the issue and present the results, together with a legislative proposal for amending the Renewable Energy Directive and the Fuel Quality Directive as necessary, no later than by July 2011.

The Directive also required the Commission to report on requirements for a sustainability scheme for energy uses of biomass *other than biofuels and bioliquids* by 31 December 2009 (Article 17(9)). The Commission adopted its report on 25 February 2010 ([COM\(2010\)11](#)). The report concluded that at this stage more detailed legislation is not necessary. In the absence of harmonised legislation, Member States are free to put in place their own national schemes for solid and gaseous biomass used in electricity, heating and cooling. The report provided recommendations for Member States to follow similar patterns of implementation and be guided by a set of sustainability criteria set out in the report.

On 31 January 2011 the Commission published a Communication ([COM\(2011\)31](#)) presenting an overview of the renewable energy industry in Europe and its prospects to 2020. The conclusions were based on studies reviewing the European and national financing of renewable energy, the recent progress in the development of renewable energy sources and the use of biofuels and other renewables in transport. The Commission concluded that for both Member State and European financing of renewable energy, the existing framework must be improved if the EU is to reach its 2020 targets at the lowest possible cost. The Commission, therefore, invited Member States to

- Implement the National Renewable Energy Action Plans.
- Streamline infrastructure planning regimes while respecting existing EU environmental legislation and strive to conform to best practice.
- Make faster progress in developing the electricity grid to balance higher shares of renewable energy.
- Develop cooperation mechanisms and start integrating renewable energy into the European Market.
- Ensure that any reforms of existing national support schemes will guarantee the stability for investors, avoiding retroactive changes.

In June 2011, the European Commission opened a public consultation on ‘accounting methods and conditions for the 10 per cent renewable energy in transport target – and on the need for additional types of biofuels being listed in Annex III of the Renewable Energy Directive’.⁸ The consultation sought views on issues surrounding the accounting rules for calculating the 10 per cent target, i.e. determining the contribution made by different forms of renewable energy used in the transport sector.

The consultation addressed a range of issues that would either involve updating current provisions in the Directive or could lead to drawing up new methodologies. In the public consultation the Commission specifically addressed the following:

- Biofuels: energy contents for different types of biofuels are listed in Annex III of the Directive. The Commission consulted on whether and how to update this list;
- Electricity: The Directive stipulates that the amount of renewable electricity used in the transport sector is calculated as a share of total electricity used in transport; the share reflects the Member State or EU average share of renewables in the overall electricity mix. The consultation addressed potential conditions under which the whole amount of electricity used in transport could be counted as renewable and hence towards the 10 per cent target;
- Hydrogen: There is currently neither a methodology for accounting for hydrogen use under the Directive nor does hydrogen form part of the EU energy statistics system. The consultation considered potential methods to calculate the contribution of hydrogen use to the 10 per cent target.
- Biomethane: The Directive currently does not include rules for calculating the share of biomethane used in the transport sector that is supplied via the natural gas grid (where biomethane and conventional natural gas become mixed). The Commission envisages approximating biomethane's contribution by attributing a share of total biomethane use to each sector in proportion to each sector's natural gas consumption. Views were sought on whether alternative methods could be appropriate, one alternative being to recognise conditions under which the whole amount of methane used in transport could be counted as renewable.

Even though this consultation might have seemed to merely tackle 'dry' accounting issues, partly 'hidden' in the annexes of the Directive, there are some wider implications. Analyses of the national renewable energy Action Plans gave rise to some disappointment about the limited extent to which Member States plan to use alternative forms of renewable energy in transport beyond first-generation biofuels, such as for instance advanced biofuels but also electricity and biomethane fuelled cars. The consultation document summarised the key figures: 1 per cent of renewable energy used in transport are anticipated to come from renewable electricity and potentially 0.2 per cent from biomethane in the EU by 2020. In this context, the public consultation addressed important questions on whether alternative accounting rules would change the incentive structure in favour of enhanced electricity or biomethane uptake.

Enforcement and court cases

No cases concerning Directive 2009/28/EC have been concluded by the European Court of Justice.

Related legislation

There are a number of other EU Directives that have a strong interaction with Directive 2009/28/EC. These include:

- Directive [2001/77/EC](#) on renewable electricity.
- Directive [2003/30/EC](#) on biofuels in transport.
- Directive [2010/31/EU](#) on energy performance of buildings.

References

1 European Council, Council Document 7775/1/06 REV 1.

2 European Parliament (2006) European Parliament resolution of 14 December 2006.

3 European Council, Council Document 7224/1/07 REV 1.

4 European Parliament, Road map for renewable energy in Europe, <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P6-TA-2007-0406>, Accessed 04.03.2010

5 European Parliament, Legislative observatory on promotion of the use of energy from renewable sources, <http://www.europarl.europa.eu/oeil/FindByProcnum.do?lang=2&procnum=COD/2008/0016>, Accessed 04.03.2010

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7 Bowyer, C. and Kretschmer, B. 2011. Anticipated Indirect Land Use Change Associated with Expanded Use of Biofuels and Bioliquids in the EU - An Analysis of the National Renewable Energy Action Plans. Institute for European Environmental Policy, London. http://www.ieep.eu/assets/786/Analysis_of_ILUC_Based_on_the_National_Renewable_Energy_Action_Plans.pdf

8 Public consultation on ‘accounting methods and conditions for the 10% renewable energy in transport target – and on the need for additional types of biofuels being listed in Annex III of the Renewable Energy Directive’:
http://ec.europa.eu/energy/renewables/consultations/20110614_res_target_en.htm.