

## › THE RENEWABLE ENERGY DIRECTIVE 2009



Directive 2009/28/EC on the promotion of the use of energy from renewable sources (“the Directive”) entered into force in late May 2009.

It must become UK law by 5th December 2010. However, it is effectively already the law now. The European Court of Justice has previously stated that no Member State, nor any of its legislative, administrative or judicial organs, may do anything prior to transposition which would prejudice the full implementation of a directive. Indeed, under this Directive, Member States are to supply the European Commission with a national renewable energy plan by 30th June 2010 (in advance even of the transposition date of December 2010).

The Directive is a real mixed bag, but it is of critical legal importance to the renewable energy (and energy) industries, since it will essentially be the overriding common framework of EU law against which all Member States will be measured in the years to come in respect of their legal obligations to promote energy from renewable sources.

### Scope of this Briefing

The Directive is relatively large, with some fine technical detail buried in the small print. In this Briefing we necessarily have to confine ourselves to certain key components of the Directive, but operators should bear in mind that the small print is there, and take advice.

It is about much more than renewable electricity generation. It is an ambitious and far-reaching framework to address climate change. In this Briefing, we will highlight the key areas of this wider EU law framework, and where it will impinge upon national policy, legislation and administrative practices (including most significantly the planning process) after December 2010.

In this regard, it is useful to remind ourselves of the settled legal doctrine of the supremacy of EU law in all matters within its competence – a doctrine binding on all organs of the state, including the Courts and the regulatory authorities. UK law and administrative practice on renewable energy *must* fit in with the Directive, otherwise it is illegal and can be challenged.

The key components of the Directive are as follows:-

- › The legal boundaries of what “renewable” energy is under EU law
- › The renewable energy targets and how these are calculated
- › Priority grid connection for electricity from renewable sources
- › Authorisation, certification and licensing of renewable energy plants
- › Guarantees of Origin
- › “Sustainable” biofuels and bioliquids.

### The legal boundaries of what “renewable energy” is under EU law

It is fundamental to define what we mean by “renewable energy”. We should get used to the term “energy from renewable sources”. It is the *sources* which are the renewable element, not the energy they produce as such.

The Directive sets the legal boundaries by reference to a set of interconnected definitions, set out in Box 1 below.

The legal definition of “biomass” is set out separately in Box 2. This is important and distinctive because it represents the “waste to renewables gateway” – the transformation of industrial, agricultural and municipal wastes into sources of renewable energy. It is the bridge between two concepts not usually bracketed together – “waste” and “renewables”.

#### Box 1: EU definition of “energy from renewable sources”

- (1) Definition:- energy from renewable non-fossil sources
- (2) Sources:- wind, solar, aerothermal, geothermal, hydrothermal and ocean energy; hydropower; **biomass**; landfill gas; sewage treatment plant gas; and biogases
- (3) Aerothermal energy:- energy stored in the form of heat in the ambient air
- (4) Geothermal energy:- energy stored in the form of heat beneath the surface of solid earth
- (5) Hydrothermal energy:- energy stored in the form of heat in surface water

#### Box 2: EU definition of “Biomass”

- (1) The 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)
- (2) The biodegradable fraction of industrial and municipal wastes

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### The renewable energy targets and how these are calculated

As is reasonably well known now, the UK has a legally binding obligation to ensure that, by 2020, 15% of its "gross final consumption of energy" comes from renewable sources.

This is an overall target for **all sectors**, and this "gross final consumption of energy" means the energy commodities delivered for energy purposes to all of the UK's industry, transport, households, services (including public services), agriculture, forestry and fisheries sectors.

This "gross final consumption" includes the consumption of electricity and heat production, but also "losses" of electricity and heat in distribution and transmission.

Separately, within that overall target, there is a target for the **transport sector** – each Member State is to ensure that, by 2020, 10% of its "final consumption of energy" *in transport* comes from renewable sources.

The calculation therefore focuses on the **share** of the "final consumption" that properly comes from renewable sources. The "gross final consumption of energy from renewable sources" is calculated as the sum of the following:-

- › gross final consumption of **electricity** from renewable energy sources;
- › gross final consumption of energy from renewable sources for **heating and cooling**, and
- › final consumption of energy from renewable sources in **transport**.

“We should get used to the term "energy from renewable sources". It is the sources which are the renewable element, not the energy they produce...”

There are very detailed calculation matrices set out for each of the various sectors and various types of renewable energy sources. These are in Articles 5 to 11 of the Directive. These calculation rules will however be determinative when seeking to secure renewable energy status.

### Priority grid connection for electricity from renewable sources

It is well known that there remain major practical difficulties and commercial risks associated with grid connection for renewable energy. The Directive raises the ante on the Member States to deal with this in a number of key respects.

In this context (and in the context of authorisation, certification and licensing of renewable energy plants, as per the next section on page 3), an important aspect of EU law is worth noting – that is the rule that Member States are legally obliged by Article 10 of the Treaty of Rome to advance in their legislative, administrative and judicial actions, the overall objectives of EU directives, and conversely to desist from any such actions which would undermine the attainment of such objectives.

“The Directive does not permit any national legislative, administrative or judicial system or practice to get in the way of the development of renewable energy at the target levels set.”

Therefore, whilst there are individual provisions of the Directive which are worthy of note, the overall scheme of the Directive is one which does not permit any national legislative, administrative or judicial system or practice to get in the way of the development of renewable energy at the target levels set.

In the context of grid connection, this means there are now a range of legal obligations that are binding on **all** organs of the UK State (and for which they can legally be called to account), including legal obligations:-

- › 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 as it accommodates the further development of electricity production from renewable energy sources;
- › to *accelerate* authorisation procedures for grid infrastructure and to co-ordinate approval of grid infrastructure with administrative and planning procedures – (subject to compliance with EU environmental (assessment) law, this is a clear direction to "get on with it" at, for example, the planning level);
- › to *ensure* that transmission and distribution system operators *guarantee* the transmission and distribution of electricity produced from renewable energy sources;
- › to provide either *priority* access or *guaranteed* access to the grid system for electricity produced from renewable energy sources;
- › to require that transmission and distribution system operators set up and publicise rules and procedures, and a comprehensive set of specified information, which will guide and enable new producers to integrate electricity produced from renewable sources into the interconnected grid;

“The UK is now legally obliged to “*make this happen*” .....connecting energy from renewable sources up to national and local electricity networks.”



- › to *ensure* controls are applied to the charging of transmission and distribution tariffs, specifically so as not to discriminate against electricity from renewable energy sources (including in particular electricity from renewable energy sources produced in peripheral regions, such as island regions etc) and to ensure that such charges reflect realisable cost benefits resulting from the plant's connection to the network; and
- › to assess in their national renewable energy plan the necessity to build new infrastructure for district heating and cooling produced from renewable energy sources.

In short, the UK is now legally obliged to “*make this happen*”, and it will not be allowed to plead technical, financial or other “domestic” constraints for not making a more effective fist of connecting energy from renewable sources up to national and local electricity networks.

### Authorisation, certification and licensing of renewable energy plants

This theme is replicated in more general provisions dealing with how Member States go about the authorisation process for renewable energy plants and associated transmission and distribution infrastructure. There are some fairly broadly worded obligations imposed on Member States which may, for example, produce some interesting tensions in the face of the UK's planning process.

Again, these are quite detailed, but some of the more important legal obligations are found in the following aspects of Article 13 of the Directive:-

- › to *ensure* that national rules concerning the authorisation, certification and licensing procedures that are applied to (i) plants and associated transmission and distribution network infrastructures for the production of electricity, and heating or cooling from renewable energy sources, and (ii) the process of transformation of biomass into biofuels or other energy products, **are proportionate and necessary**,
- › to *ensure* that the respective responsibilities of national, regional and local administrative bodies for authorisation, certification and licensing procedures (including spatial planning) are **clearly co-ordinated and defined**, with transparent timetables for determining planning and building applications;
- › to *ensure* that administrative procedures are **streamlined and expedited**,

- › to *ensure* that “administrative charges” paid by consumers, planners, architects, builders and equipment and system installers and suppliers are **transparent and cost-related**,
- › to *ensure* that **simplified and less burdensome** authorisation procedures are established for smaller projects and for decentralised devices for producing energy from renewable sources;
- › to *ensure* that they clearly define any technical specifications which must be met by renewable energy equipment and systems in order to benefit from “support schemes” – these schemes are national initiatives whereby the use of renewables is encouraged (e.g. the UK Renewables Obligations);
- › to *ensure* that building regulations and codes contain appropriate measures in order to increase the share of all kinds of energy from renewable sources in the building sector – with a deadline of 31st December 2014 for the compulsory use of minimum levels of energy from renewable sources in new buildings and in existing buildings that are subject to major renovation.

In closing, it should be reiterated that these are now binding on **all** organs of the UK (and for which they can legally be called to account).

### Guarantees of Origin

The entire “renewables agenda” is dependent upon being able to prove to final customers and Government the share or quantity of energy from renewable sources which are in an energy supplier's energy mix.

For this purpose, Article 15 of the Directive requires that Member States ensure that the origin of electricity produced from renewable energy sources can be guaranteed as such, in accordance with objective, transparent and non-discriminatory criteria.

“Some obligations imposed on Member States may produce some interesting tensions in the face of the UK's planning process.”

This is an area already covered in UK law, through the Electricity (Guarantees of Origin of Electricity Produced from Renewable Energy Sources) Regulations 2005. However, the Directive sets down some specific guidelines going forward, and which go beyond electricity.

# “Biofuels and bioliquids can count for compliance with the Directive and towards meeting the targets for renewable energy.”



The Directive defines a “Guarantee of Origin” as:

“an 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”.

In addition to proving the renewable origin of electricity, the Directive provides that these guarantees should be available for producers of heating and cooling from renewable energy sources.

The minimum specifications of an EU-compliant “guarantee of origin” are:-

- › the energy source from which the energy was produced and the start and end dates of production;
- › whether it relates to electricity, heating or cooling;
- › the identity, location, type and capacity of the installation where the energy was produced;
- › whether and to what extent the installation has benefited from investment support;
- › whether and to what extent the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme;
- › the date on which the installation became operational; and
- › the date and country of issue and a unique identification number.

## “There must be a significant greenhouse gas emissions saving from the use of the relevant biofuel or bioliquid.”

### “Sustainable” biofuels and bioliquids

One of the most interesting areas for commercial development of “renewable” sources of fuel lies in the area of “biofuels” and “bioliquids”. This in turn leads you into the world of “biomass”, and from there into waste.

First, let’s be clear about our terms here.

“**Biofuels**” are **transport** fuels. They can be in liquid or gas form, provided that they are produced from “**biomass**”.

“**Bioliquids**” on the other hand, are **non-transport** fuels which must (as the name suggests) be in liquid form, and produced for any purposes other than transport, including electricity, heating or cooling. Again, they must be produced from “**biomass**”.

The Directive provides a framework for Member States to feature such biofuels and bioliquids in their renewable energy strategies, and allows them to take advantage of the various financial and regulatory incentives that the Directive requires renewable fuels to have.

This demonstrates the wider framework of EU renewable energy law, that is beyond wind, wave, solar etc, and into “biomass” and its close relative, “waste”.

As we observed above, the Directive definition of “**biomass**” = **both**:

(1) the 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)

and

(2) the *biodegradable fraction* of industrial and municipal wastes.

Thus, biofuels and bioliquids can count for the purposes of compliance with the Directive and towards meeting the targets for renewable energy.

However, to do that, these biofuels and bioliquids must be “*sustainable*”. What does this mean?

It means that the biofuels and bioliquids must meet certain very detailed qualifying criteria set out in Articles 17 to 19 of the Directive.

The very basic qualifying criterion is that there must be a significant **greenhouse gas emissions saving** from the use of the relevant biofuel or bioliquid.

That “saving” must be at least 35% in the early years of the Directive, although this does not kick in until April 2013 for biofuels and bioliquids produced in “*existing*” installations (that is, those already in operation on January 23rd 2008).

The obligatory “saving” percentage then escalates to 50% in January 2017 and 60% in January 2018 for biofuels and bioliquids produced in “*new*” installations (that is, those first commissioned after January 2017).

Note also, in this context, that there are two “tiers” of biofuels and bioliquids:-

- › biofuels and bioliquids produced from the residues or wastes of the agricultural, aquaculture, fisheries or forestry industries; and
- › biofuels and bioliquids produced from wastes or residues of other industries.

# “The Renewable Energy sector is not immune from the effects of the credit crunch and the cold winds of recession.”



The second category of biofuels and bioliquids – those **not** sourced from agricultural, aquaculture, fisheries or forestry – get a “lighter touch”, and are simply required to meet the relevant applicable greenhouse gas emission saving percentage.

The first category of biofuels and bioliquids – those which **are** sourced from agricultural, aquaculture, fisheries or forestry – is the one which attracts the heavier weight of “sustainability” conditions. These reflect the sensitivity which affects these kinds of biofuel and bioliquid sources. Thus for example, “renewable” biofuels or bioliquids **cannot** be sourced from land with high biodiversity value (and these are defined in Article 17(3) of the Directive), nor can they be sourced from land with high “carbon stock” (which effectively refers to deteriorating wetlands and forested areas). There are similar restrictions on peatland.

## “The EU's increasing dependence on energy imports threatens its security of supply.”

This is the problem with biomass. Serious questions still exist as regards its overall environmental sustainability. There are well documented concerns about using crops as the source and displacing existing agricultural production, with the knock on effect of clearance of forests to grow more crops (with a resulting rise in greenhouse gas emissions). In our view, this must mean that we move away from crops and sources which displace food production and forestry, and into sources of biofuel and bioliquid production which come from other sources, and specifically from industrial and municipal wastes. We cannot eat waste. We cannot feed the world's poor with waste. Waste is a problem. Its disposal routes are shrinking, and yet it keeps coming. The development of commercial techniques for transforming wastes into biofuels and bioliquids must surely receive massive governmental support.

### Conclusion

There is no debating the virtue of renewable energy these days. The European Commission has pointed out recently that the challenges of climate change caused by emissions of greenhouse gases, primarily from the use of fossil energy, are such that decisive and immediate action is required which integrates climate and energy policy.

Energy production and use are primary sources for greenhouse gas emissions, and the EU's increasing dependence on energy imports threatens its security of supply. Against this background, boosting investment in energy efficiency, renewable energy and new technologies has wide-reaching benefits and contributes to the EU's strategy for growth and jobs.

The EU describes the renewable energy sector as a “stand out” for its ability to reduce greenhouse gas emissions and pollution; exploit local and decentralised energy sources: and stimulate world-class

high-tech industries. Therefore, the function of this new Directive is to compel a change in the way in which the EU promotes renewables. This can only be done by strengthening and expanding the current EU regulatory framework to ensure that all Member States take the necessary measures to increase the share of renewables in their energy mix. It is also considered high time that a new legislative framework was implemented for the promotion and the use of renewable energy in the EU so as to provide the business community with the long term stability it needs to make rational investment decisions in the renewable energy sector.

There is no doubt that the combination of the political and social recognition of the challenges posed by climate change and the emerging EU and UK legislative/regulatory framework provides the foundation that is required for the UK and European renewable energy sector to flourish.

However, the reality is that despite this the renewable energy sector is not immune from the effects of the credit crunch and the cold winds of recession. This is starkly illustrated by a recent report issued by The Carbon Trust. This Report shows that as the credit crunch started to bite the level of public market investment in 2008 declined to €7bn (from €20.6bn in 2007). In addition, venture capital and private equity investors also pulled back from the market as they conserved capital to support existing portfolio companies through the recession.

In 2003, investment levels in clean energy in Europe and North America were nearly identical. However, by 2008 North America invested 2.7 times as much in clean energy as was invested in Europe. In addition to there being less investment in Europe, the average value of European investment rounds also declined. If these trends continue, the UK and Europe risk being left behind in the race to capitalise on the opportunities in the clean energy market. Whether the Directive provides the legislative foundation to reverse this trend remains to be seen.

We already have the 2009 Renewables Obligation Orders, and we have Climate Change Acts in England and Wales and in Scotland. The UK must now react fairly quickly with proposals to transpose the wider renewable energy framework in this Directive.

However, all matters of interpretation will inevitably lead back to the bedrock provisions of the 2009 Renewable Energy Directive. What will this mean for:-

- › the planning process?
- › contractual relationships between commercial operators?
- › strategic decisions on energy mix?

Watch this space.

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## > THE EXPERTS

For most industrial operators and for the vast UK energy and renewables industries, the legal regulations surrounding waste and renewables are a severe headache, with very significant commercial ramifications which are buried deep in complex EU and UK laws which are still in a state of frustrating transition and uncertainty.

Semple Fraser's specialist Waste, Renewables & Energy team handles the maze of EU and domestic climate change legislation, dealing with energy security, resource efficiency, and carbon reduction. It's a fraught agenda – how to do more with less (be energy efficient, create less waste, put what waste there is to good use, emit less carbon, and develop renewable forms of energy), yet stop the lights going out.

Our Group comprises industrial lawyers with a Brussels connection and technical industry understanding. We know the problems which are out there because we represent many industrial producers and managers, in court and out of court. We have our "seat at the table" with our main non-industrial client, the European Commission and we know the EU law intimately. We have to.

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