

Herbert Smith

European Energy Review **2010**

Special edition on the EU Third Energy
and Climate Change Packages



Herbert Smith in association with
Gleiss Lutz and Stibbe

Introduction

I am delighted to introduce the 2010 edition of European Energy Review which will again give an in-depth survey of current issues in the energy sector in 30 European jurisdictions.

2009 has been a busy year for the European energy sector:

- In April, the EU's Climate Change Package with its array of climate action and renewable energy measures designed to move the EU into a global leadership position in relation to emissions reduction measures entered into force.
- In September, the much awaited and at times controversial Third Energy Package entered into force, containing a wide range of measures intended to improve the working of the internal electricity and gas market in the now expanded European Union.

Therefore, this special edition of European Energy Review 2010 focuses entirely on the Third Energy Package and the Climate Change Package and the impact these two legislative packages will have in jurisdictions across Europe.

In addition to our Alliance partners Gleiss Lutz and Stibbe, who have contributed articles on Germany, the Netherlands and Belgium, respectively, this year we have contributions from Schönherr (Austria, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia); Kromann Reumert (Denmark); Raidla Lejins & Norcoux (Estonia, Latvia and Lithuania); Roschier (Finland); Zepos and Yannopoulos (Greece); Arthur Cox (Ireland); Legance (Italy); Arendt & Medernach (Luxembourg); Zammit Pace Law (Malta); Arntzen de Besche (Norway); Esquivel (Portugal); Advokatfirman Vinge (Sweden); and Homburger (Switzerland).

The Climate Change Package is the EU's first attempt to create a comprehensive European legal regime covering the carbon and renewable energy sectors, helping to inform investment decisions in these sectors by securing a future for carbon trading and laying the foundations for future investment in renewable technologies, biofuels and the development of carbon capture and storage. Many authors from Central and Eastern Europe point in their articles to the particular difficulties and efforts that the Climate Change Package seems to cause in their jurisdiction, largely due to structural issues linked to the coal dependency of some countries, the current low utilisation of renewable energy sources and the investment requirements triggered by the provisions of the Climate Change Package.

Whilst the Third Energy Package and in particular its unbundling regime was a cause of concern in some jurisdictions, the introduction of de-facto four unbundling options has enabled a somewhat softer application of the unbundling regime originally envisaged by the Commission. As such, the TEP did not bring the clear sea-change for the current unbundling situation that the Commission had originally set out to achieve. However, the TEP does bring considerable clarification on a number of existing rules, particularly in the area of third party access exemptions and, with the creation of the Agency for Co-operation of European Energy Regulators, could be said to herald the beginnings of a European energy regulator. Given that the full effect of the transposition of the TEP into national law will only become apparent in 2013, it is perhaps too early to venture an opinion on the effectiveness of the TEP whose success or otherwise will necessarily lie in its practical application across all Member States.

Silke Goldberg

Senior associate, Herbert Smith LLP
January 2010

Energy law in the United Kingdom

Implementing the Third Energy Package and the Climate Change Package in the United Kingdom

By Lynda Haigh, senior associate and professional support lawyer, Herbert Smith, London

For the UK, the implementation of both the Climate Change Package and the Third Energy Package will not involve a significant amount of additional primary legislation, nor new policies.

The mechanisms required to comply with and deliver the measures required by the two packages have largely been pre-empted by the enactment of the Climate Change Act 2008 and the Energy Act 2008, and by earlier governments under the Electricity and Gas Acts, and Utilities Act 2000, as regards the development of a competitive, unbundled energy market.

Third Energy Package

Both the gas and electricity markets were fully liberalised in the UK during the 1990's, such that all electricity and gas customers that are connected to licensed networks are free to choose their own supplier; the management of the high pressure gas transportation and high voltage electricity transmission networks is undertaken by a national system operator¹ owned and operated independently from supply or generation interests; and a competitive upstream regime for gas production and power generation operates through the use of licensing under the Petroleum Act and Electricity Act respectively². The First and Second Electricity and Gas Directives are therefore considered to be fully implemented³.

While generally in good shape to meet the more stringent requirements of the Third Energy Package, the UK does however have a number of areas where the market arrangements are perceived not to be delivering the best outcome for UK customers, or the UK's strategic energy needs. In addition to renewed focus on how to co-ordinate and implement energy saving measures there is keen focus, from both Government and the energy regulator, Ofgem, on the end pricing models adopted by energy suppliers leading to

tightening regulator oversight and controls over both wholesale and retail activities in these markets.

Unbundling

While electricity generation and supply was separated from transmission in England and Wales at privatisation with the separate flotation of generation companies, public electricity supply companies and the National Grid, the Scottish market retained two vertically integrated generation, transmission, distribution and supply entities, covering the north and south of Scotland, respectively. System operation for the Scottish transmission networks was subsequently transferred to the National Grid as part of the British Electricity Trading and Transmission Arrangements implemented in 2005. Although ownership of those networks remains with the vertically integrated Scottish entities, the operation of those networks is managed by National Grid in accordance with a System Operator-Transmission Owner Code. While the current Scottish model is considered to fall short of the ISO model, it is expected to fall within Article 9(9) of the New Electricity Directive, such that it is likely that no further substantial measures will be required.

The Utilities Act 2000 required the legal (but not ownership) separation of supply and distribution functions of the electricity supply businesses.

Requirements in the separate licences held by each supply and distribution business, together with industry wide agreements and codes that apply to all licensed businesses, put in place common mechanisms and standards to enable third party access for supply businesses on the basis of published tariffs. Similarly, gas transportation is separated from supply and shipping activities with National Grid Gas plc, formerly known as Transco plc, being the owner and operator of the natural gas transmission network in Great Britain.

The unbundling requirements of the Package will also extend to the new licensing and regulatory regime for offshore transmission. The offshore transmission network is being developed to connect offshore renewables, and in particular wind farms, to the onshore transmission system.

Regulatory oversight

The Gas and Electricity Markets Authority, acting through Ofgem, is the regulator for the electricity and gas markets in Great Britain⁴. Ofgem has concurrent powers with the UK Competition Commission in relation to those markets. The regulator is well established, having been formed in 1999 from the separate regulatory bodies for electricity (Offer) and gas (Ofgas) which had overseen the opening up of the markets to competition. Due to the advanced position of the UK energy markets, the combined role was seen as the next step that would enable competition in the energy sector to be considered in the round, and a common approach to be taken to implement social and environmental policies.

While Ofgem meets many of the requirements of the Third Energy Package for national regulatory authorities (NRAs), changes are likely to be required in a number of areas, including how its duties are expressed, the extent to which it is required to act in accordance with statutory guidance issued by Government⁵, and the structures it has in place for monitoring network security and transparency obligations. Changes to Ofgem's duties, proposed under the Energy Bill 2009, will go somewhat towards giving the regulator the broader remit that the Third Energy Package requires. The current principal duties of Ofgem, to protect the interests of existing and future electricity and gas consumers, respectively, and wherever appropriate to fulfil that objective by promoting effective competition, will be supplemented with an express provision that the interests of those consumers are to be taken to include their interests in the reduction of electricity and gas related emissions and their interests in the security of the supply of electricity and gas to them.

Transparency and record keeping obligations

Following on from a Parliamentary Select Committee investigation and Ofgem's own supply market probe in 2008, Ofgem taken steps to require disclosure of additional data on operational decisions and trades from the "Big 6" energy suppliers⁶, as well as requiring additional information to be provided to customers⁷.

Further measures are under consideration in relation to the application of the Market Abuse Directive and the Markets in Financial Instruments Directive (MiFID) to energy market participants in the UK which will impact on the UK's implementation on the requirements of the Third Energy Package in this regard.

Smart metering and smart grids

The Third Energy Package leaves each Member State to make its own assessment of the cost effectiveness of the implantation of smart or intelligent metering for electricity and gas customers.

Government included powers to mandate the use of smart metering in Great Britain in the Energy Act 2008, and DECC has confirmed its intention to roll out smart meters for electricity and gas by 2020 to all households. A key element of this policy is that a central communications model will be adopted. The responsibility for purchasing and installing smart meters will remain with energy suppliers, while communications from these meters will be co-ordinated centrally on a national basis by a communications provider. All suppliers would be obliged under the terms of new supply licence conditions to use this central communications provider.

DECC also published, in December 2009, a high level vision for the future of an electricity smart grid for Great Britain, involving greater use of distributed generation, bigger networks to accommodate the greater electrification of the transport and heating sectors, increased automation, and developments in electricity storage technology, in addition to smart metering⁸.

Climate Change Package

With the enactment of the Climate Change Act in 2008, the UK became the first country in the world to adopt a long-term legal framework for reducing carbon emissions. The UK's commitment to a 12.5% reduction of GHG below 1990 levels in the period 2008-2012 under the EU burden sharing arrangement now sits along side a national commitment for an 80% reduction in GHGs by 2050 under the Act⁹.

While it is widely recognised that the key duty under the Act, to achieve the desired reduction by 2050, is not directly enforceable, it is intended that the statutory target will give a sound footing for the steps to be taken to implement the Government's Low Carbon Transition Plan, and achieve credibility for the UK¹⁰ on the international emissions reduction stage.

The Act provides a trajectory towards meeting the 2050 target, using a system of carbon budgets and a system of carbon accounting, now implemented under the Carbon Accounting Regulations 2009. The initial budgets for the three five-year periods from 2008 to 2022, were set in May 2009 to reflect the UK's commitments under the Climate Change Package¹¹. The Department of Energy & Climate Change (DECC)¹² has stated its intention to adjust the budgets as and when there is any increase in the EU's commitments following a new international agreement on emissions reductions.

A Committee on Climate Change has been established under the Act as an independent expert body to advise Government on setting carbon budgets and to report to Parliament on the progress made in reducing greenhouse gas emissions. The Committee published its first annual progress report to Parliament in October 2009, with key findings that:

- the economic recession was giving a misleading impression in relation to progress against budgets, and had scope to undermine steps being taken to drive long-term reductions; and

- the rate of emissions reduction needs to be speeded up, with a focus on the power generation sector and home energy efficiency improvements.

The need for a cleaner power generation sector is key to the Committee's findings, particularly given the UK Government's aspirations to move to a largely decarbonised road and rail sector by 2050, primarily through the use of electric vehicles and expanding the electrified rail network, as part of its Low Carbon Transition Plan¹³.

Implementing the New EU ETS Directive

The UK Government is strongly in favour of the EU ETS and pushed for an ambitious outcome to the 2007 negotiations on the New EU ETS Directive. The first stage of transposition has already taken place, dealing with data collection requirements for Phase III. The UK Government also sought comments on a draft list of installations that will be covered by the wider scope of the EU ETS in Phase III. The UK expects to complete the remaining transposition requirements by the end of 2011, ahead of the 31 December 2012 deadline, including the replacement of the EU ETS implementing regulations, the Greenhouse Gas Emissions Trading Scheme Regulations 2005.

Transposing the data collection requirements

Following a consultation in the summer of 2009, a set of implementing regulations, the Greenhouse Gas Emissions Data and National Implementation Measures Regulations 2009, came into force on 31 December 2009 and apply across the UK¹⁴. DECC has estimated the cost to industry of implementing the new reporting measures, which require installations new to Phase III to submit emissions data, and those sectors eligible for free allowances in Phase III to submit historic production data, to the Environment Agency for onwards submission to the European Commission, to be in the region of £2.6 million leading to calls for these costs to be centrally funded¹⁵. For the UK it is estimated that approximately 170 additional installations will be subject to these reporting requirements due to the expansion of the scope of the EU ETS in Phase III, together with the 680 installations that are already covered by Phase II and which will be eligible for free allocations in Phase III (not including electricity generators).

In readiness for the preparation of the UK National Implementation Measures, which will provide a mechanism for the application of the harmonised allocation methodology rules to UK installations, it is expected that there will be a consultation with small emitters (which under the new rules can be opted out, provided they comply with alternative emission reduction legislation) in Spring 2010, followed by a consultation on the UK National Implementation Measures in Spring 2011, looking particularly at the application of proposed EU wide benchmarks to UK installations.

Auctioning

The UK was the first Member State to hold an auction in Phase II of the EU ETS in November 2008, and has been working on refinements to its auction models for the auctions that will take place up to April 2010 with the

hope of influencing the EU wide auction design for Phase III. As with most Member States, for Phase III there will be no free allocation for the UK power sector, with 100% of the allowances being auctioned. The UK's renewable and CCS industry does however stand to benefit from the redistribution of the proceeds of the auction of 300 million allowances reserved for new entrants¹⁶.

Carbon leakage

The UK, together with Germany and the Netherlands, took a proactive approach in developing criteria to assess the risk of carbon leakage for Phase III, with strong lobbying from the UK's cement and aluminium sectors driving the UK position. Informal consultation has taken place in the UK on the benchmarking that will be used in Phase III to determine the allocation of free allowances for certain sectors. While revisions to State Aid guidance mean that Member States may also compensate installations that are at significant risk of carbon leakage as a result of indirect costs (eg, through increased electricity prices), DECC has indicated that it expects that these indirect costs would only be an issue for a very limited number of installations in the UK.

JI and CDM

The UK's Phase II National Allocation Plan set a limit on the use of project credits equal to 8% of total emissions. As this was lower than the EU average, the UK is expected to receive a relatively high proportion of the additional access to project credits during Phase III. The extent to which project credits will be used in the UK for Phase III is however unclear, with DECC commenting that it would see most of the reduction effort being delivered domestically due to reductions resulting from renewables targets, energy efficiency and the EU ETS, rather than reliance on further investment in CDM projects. Concerns also remain over the environmental integrity of some project credits.

Small emitters

For Phase II the UK National Allocation Plan applied a 20MW thermal threshold, and a 3MW de minimis rule. Under the new EU ETS Directive, there will be a degree of harmonisation with a combination of a 35MW capacity and 25kt emission threshold, with an optional opt-out that can be exercised if the installation is covered by equivalent measures. For the UK, the new thresholds are estimated to exclude 115 installations, mainly from the food & drink, chemicals, glass and offshore oil & gas sectors. In applying the opt-out, the UK Government is assessing the least-cost option for these installations, with the equivalent measures for any excluded installations being either or both of the Carbon Reduction Commitment Energy Efficiency Scheme and energy efficiency commitments under a Climate Change Agreement, discussed further below.

Implementing the GHG Reduction Decision

For the non-EU ETS sector, the UK has committed to reduce its GHG emissions by 16% by 2020 from 2005 levels. The policy and implementing measures to meet these commitments are set out in the Climate

Change Act, the Energy Act 2008, and the UK's Low Carbon Transition Plan (including the Renewable Energy Strategy). It is Government's intention that this target is achieved entirely through domestic emissions reductions, with recourse to CDM credits only where the UK's carbon budgets are tightened to reflect any new EU commitments following a new international agreement. A "zero" limit on the use of international credits has therefore been introduced in the Climate Change Act 2008 (2020 Target, Credit Limit and Definitions) Order 2009/1258.

Key measures to be taken in the non-EU ETS sector are:

- incentives for households and businesses to reduce their energy consumption by taking energy efficiency measures, including a new trading scheme – the Carbon Reduction Commitment – and the roll out of smart meters, and the continuation of other schemes to promote energy efficiency;
- a "clean energy cash back scheme", which implements a new feed-in tariff regime for small scale renewable and low carbon generation, and a separate regime for renewable heat, together with other measures that fall under the Renewable Energy Strategy (discussed further in relation to the Renewable Energy Directive);
- specific measures aimed at energy intensive businesses, including extensions to Climate Change Agreements¹⁷;
- requirements for new buildings to be "zero carbon" by 2016 for new homes and 2020 for commercial buildings;
- introducing specific carbon budgets for each of the major Whitehall Departments under the first three carbon budget periods (under the Climate Change Act 2008); and
- requiring central Government and the wider public sector to cut emissions by 30% compared with 1999/2000 levels by 2020.

The Carbon Reduction Commitment (CRC) Energy Efficiency Scheme

The Carbon Reduction Commitment scheme was renamed as an energy efficiency scheme following criticism that no credit would be given for certain carbon reduction measures that did not involve energy efficiency measures, such as sourcing power needs from renewable energy. The scheme, which will be implemented under powers contained in the Climate Change Act 2008, requires businesses outside of the EU ETS which consumed at least 6,000 MWh of half-hourly metered electricity during 2008 to purchase a new form of carbon allowance, and report on emissions resulting from energy usage, including gas, electricity and other fuels such as coal, LPG and diesel. The introductory phase for the CRC runs from April 2010 to March 2013. The first year of the scheme, from 1 April 2010 to 31 March 2011 is a "footprint year"; no allowances need to be purchased during this period but participants must report their emissions. The first sale of allowances will happen on 1 April 2011 and from then until the end of the introductory phase of the

scheme in March 2013, allowances will be sold at a fixed price of £12 per tonne of carbon dioxide emitted. After the introductory phase, the scheme enters a second phase during which participants will be required to bid for allowances in an auction held at the start of each scheme year. The total number of allowances will be capped from 2013 onwards, with the level of the cap being set by DECC on the recommendation of the Committee on Climate Change. The cap will be lowered each year and the price of allowances will not be fixed as during the introductory phase.

Other measures outside of the EU ETS include the Carbon Emission Reduction Target (CERT) which is an obligation on energy suppliers to achieve household carbon saving targets. Suppliers meet their targets by promoting the uptake of energy saving measures, including loft and cavity wall insulation and high-efficiency lighting and appliances. While the acronyms can become confusing, CERT and the CRC are also distinct from the Community Energy Saving Programme (CESP) which is an obligation not only on energy suppliers but also, unlike CERT, on electricity generators to meet a carbon dioxide emission reduction target by providing energy efficiency measures to domestic consumers, particularly to households with low incomes.

Climate change agreements and the Climate Change Levy

The Climate Change Levy is an energy tax which was introduced in April 2001 and which is designed to encourage businesses to use energy more efficiently. It is charged on energy supplied to business and the public sector, but, unlike the CRC, exemptions are available for supplies sourced from renewables or good quality combined heat and power plants. Fuels supplied for electricity generation and most fuels supplied for transport are also excluded.

Climate Change Agreements were established to mitigate the impact of the Levy on the competitiveness of certain energy intensive industries whilst encouraging the taking of energy efficiency measures. There are ten major energy intensive sectors (aluminium, cement, ceramics, chemicals, food & drink, foundries, glass, non-ferrous metals, paper, and steel) and over thirty smaller sectors with agreements to date. Under these agreements relevant participants receive an 80% discount from the levy in return for meeting energy efficiency or carbon reduction targets. The current Agreements end in 2013 and Government is seeking State Aid approval to extend them to 2017, albeit with amendments to the form and content of the new agreements. As part of its Budget 2009, Government also announced that the Levy exemption for good quality CHP would be extended by a further 10 years to 2023, again, subject to State Aid approval.

Implementing the Renewable Energy Directive

Under the Renewable Energy Directive, 15% of the energy consumed in the UK is to come from renewable

sources by 2020, together with 10% of road transport fuels, subject to sustainability criteria being met. Government expects that the 15% target will be achieved entirely through domestic action, by increasing the UK's use of renewable electricity to 34%, renewable heat to 14% and renewable transport fuels to 10%. DECC has described these targets as challenging but achievable. For the UK the increase in the use of renewable energy has a second policy driver, that of increasing energy diversity, and therefore improving security of supply given the UK's declining gas reserves¹⁸.

As at April 2009, the UK's overall level of renewable energy use was less than 2%. There is concern from a number of quarters that it will be physically impossible for the UK to meet its renewable energy targets given the need for specialist offshore vessels to service the current plans for offshore windfarms, and competition on the world stage for manufacturing capacity. Suggestions have been made that investment is needed into a wider spectrum of carbon reduction measures, including geo-engineering technologies, to supplement current plans to increase wind, nuclear and fossil fuel generation capacity with carbon capture and storage technology¹⁹. Meeting the targets will also depend on the success of the energy efficiency measures outlined above.

Prior to the finalisation of the Package, the UK had already set out its plans to boost UK renewable energy production and consumption by a series of measures which build on a number of existing schemes, and introduce new incentives for renewable heat generation, small scale low carbon generation and the use of biofuels for transport.

Renewable electricity

The Renewable Energy Strategy is part of a package of documents that together comprise the UK Low Carbon Transition Plan. The Strategy includes the initiatives that the UK Government is taking, and plans to take, to promote renewable generation.

These include changes to the Renewables Obligation, a UK wide system based on a supplier purchase obligation combined with tradeable green certificates, introducing more of the features of the feed-in-tariff regimes that have operated successfully elsewhere in Europe²⁰. Since April 2009, the scheme and the mirror schemes for Scotland and Northern Ireland have provided banded levels of support for different technologies, with Government having the ability to adjust the "bands" under a four yearly review process, or earlier if certain criteria are met. These ad hoc review powers have now been used to increase the banding for certain offshore wind projects, based on significant increases in costs for offshore wind generators²¹.

In addition to changes to the Renewables Obligation, the Renewable Energy Strategy confirms Government's intention to introduce a new Feed-in Tariff regime for small-scale low carbon generation with effect from 1 April 2010. Government has proposed that:

- the Feed-in Tariff regime will apply up to the maximum permitted under the Energy Act 2008 (5MW);

- all eligible generation will receive a generation tariff (even if used on site) with an indicative range of between 4.5p/kWh for larger wind, hydro and biomass installations, and up to 36.5p/kWh for small-scale (less than 4kWh) retrofitted solar power installations;
- an additional payment will be made for exported power (an indicative price of 5p/kWh is cited);
- not all renewable technologies will be included in the scheme, those that are not included will remain eligible for the Renewables Obligation; and
- tariff levels are expected to ramp down over time but once an eligible project has qualified for a tariff the level of the tariff will not be adjusted for that project.

The scheme will be funded by all licensed electricity suppliers, and ultimately by electricity consumers through increases in electricity bills. Only the larger suppliers will be required to offer Feed-in Tariffs, with the cost being shared between all licensed suppliers in proportion to their market share through "levelisation" payments.

Microgeneration

A strategy for microgeneration was produced in March 2006, as required by section 82 of the Energy Act 2004, with the objective of creating the conditions for microgeneration to become a realistic alternative or supplementary source of energy generation. The Green Energy (Definition and Promotion) Act 2009 requires DECC to consult on a microgeneration strategy by 12 May 2010 and to publish the resulting strategy by November 2010. It also requires amendments to be made to the Town and Country Planning (General Permitted Development) Order 1995 to allow certain microgeneration equipment to be installed on domestic properties without the need for planning permission. Consideration also has to be given to making similar changes for non-domestic premises.

Renewable heat

Powers were included in the Energy Act 2008 to implement a Renewable Heat Incentive. Government has confirmed that it is working towards introducing the scheme in April 2011, and that the scheme will cover all scales of installations from large industrial sites down to the domestic level. As regards biomass - a key fuel for heat production - Government expects to use the sustainability criteria applicable to biomass used for renewable electricity generation under the Renewables Obligation.

The CCS Directive

The UK still generates roughly 32% of its electricity from coal fired power stations, albeit out of the 47.8 million tonnes of coal consumed in 2008, imports amounted to 43.9 million tonnes. Despite the dwindling domestic coal industry, and previous policies which encouraged a switch away from coal to cleaner fuels, coal, when coupled with carbon capture and storage, is now seen as essential for the UK's future electricity mix (at least in the medium term) due to the contribution coal can make to security and

diversity of the UK's electricity supplies²². Modelling has been conducted in the UK which suggests that the UK coal CCS demonstration projects will displace investment in new gas power stations, with no impact on investment in new low carbon renewable and nuclear²³.

Measures were taken in the UK prior to the adoption of the CCS Directive to require CCS retrofit capability for new coal plant as a condition to obtaining consent to build new plant²⁴ and to move forward with a legal framework that could enable a pilot demonstration project (now expanded to four projects) to proceed.

Requirement for CCS readiness and retrofit

The requirements for new coal plant have now been set out in the Government's response to the consultation on its Framework for the Development of Clean Coal, published in November 2009, requiring any new coal plant to demonstrate the full CCS chain at a commercial scale from at least 300MW net (around 400MW gross) of the station's capacity, and an expectation for those plants to retrofit CCS on their full capacity by 2025.

The policy will be implemented through the permitting regime under the Electricity Act 1989 for new power stations²⁵, and subsequently through the designation of a National Policy Statement for Fossil Fuel Electricity Generating Infrastructure, which will mandate these requirements in relation to any application for the development of a coal-fired station that will come before the new Independent Planning Commission, potentially from March 2010²⁶.

Funding for demonstration projects

Once enacted, the Energy Bill 2009 will provide powers for a funding mechanism for four demonstration projects, by means of an Electricity Supply Levy that will apply to licensed electricity suppliers, and a redistribution of funds by means of schemes agreed with each project developer or centralised grants. Government expects to consult on regulations to implement the details of the scheme in early Summer 2010, with the aim that these provisions will be in force to support the first CCS demonstration project under the Government's initial competition. A second competition, for three more projects, is expected towards the end of 2010. The UK is hopeful that at least one, and possibly two, UK CCS projects will qualify for EU support.

A permit based storage regime

While issues remain in the UK with storage of carbon dioxide onshore, powers to implement an offshore storage licensing framework for carbon dioxide were enacted under the Energy Act 2008. The Act enabled the creation of a Gas Importation and Storage Zone²⁷ (the "Zone") under which the UK asserts its rights to make use of the offshore area beyond its territorial sea for the storage of carbon dioxide, in accordance with the terms of the United Nations Convention on the Law of the Sea.

A licence is therefore now required to explore for an offshore storage site, convert a natural feature for a storage site and for the storage of the carbon dioxide itself within the new Zone as well as the UK's territorial

sea²⁸. A lease from the Crown Estate, which manages the Crown's sovereign rights to the UK sea bed, is also required. The Act applies certain decommissioning obligations that apply to offshore oil and gas infrastructure to carbon storage infrastructure.

Draft implementing regulations, intended to transpose the CCS Directive permitting requirements, have been published, together with a draft form of storage licence²⁹.

The regulations anticipate a two stage process, under which a licensee (or group of co-licensees) would be granted an exploration licence, and may subsequently apply for a storage permit, which would be annexed to the licence. At this latter stage, they would be required to appoint an operator to organise and supervise activities at the storage site. The draft regulations do not directly address the CCS Directive's requirement for the Member State to assume responsibility for storage sites from a handover point once all of the storage operator's obligations have ceased, nor do they deal with the third party access requirements of the Directive for transport networks or storage sites.

The regulations are expected to be made in the first quarter of 2010, to come into force on 6 April 2010.

The Biofuel Directive

Domestic transport contributes a fifth of the UK's total greenhouse gas emissions. Under the Government's Low Carbon Transition Plan, and specifically its Low Carbon Transport plan³⁰, the Government plans to reduce emissions from domestic transport by 14% on 2008 levels by 2020. This includes improvements to the fuel efficiencies of conventional vehicles, as required by the Emissions Standard Regulation, implementing measures for the public sector in relation to the procurement of new vehicles³¹, and various measures to promote new technologies including electric vehicles and increasing electrification of the rail system, as well as the increased use of biofuels.

In 2008-2009 around 2.6% of all UK road fuels used were biofuels. Existing requirements to use an increasing proportion of biofuels were implemented in April 2008 under the Renewable Transport Fuel Obligation (the RTFO), a scheme made under powers given in the Energy Act 2004, although the level at which the obligation was due to increase has been adjusted downwards following concerns over the indirect effects of biofuels production³².

The RTFO works by placing an obligation on suppliers of fossil fuels for road transport to prove that the appropriate percentage of the fuel they supply for use in the UK comes from renewable sources, or to pay a "buy-out" price. Biofuel producers are awarded certificates for the volume of renewable fuels they supply. The certificates can in turn be sold on to fossil fuel suppliers, with the intention that this will provide financial support for the biofuel producers. A market for certificates under the scheme has started to develop, following some initial teething problems.

The Government has said that it will amend or replace the existing RTFO scheme to take into account the enhanced requirements of the Renewable Energy Directive and the Biofuels Directive, including mandatory sustainability requirements, and also the contribution from renewable fuel other than biofuels, eg, electric vehicles. A consultation on draft legislation to implement these changes is expected in early 2010, with legislation to take effect in December 2010.

Conclusion

With the exception of some further measures relating to the public funding of pilot carbon capture and storage projects contained in a new energy bill at the end of 2009, and some potential changes to the duties and powers of the energy regulators, the UK is in a good position to be fully compliant with the Two Packages in advance of the transposition dates³³.

footnotes

1. National Grid Electricity Transmission plc in the case of electricity, and National Grid Gas plc, formerly Transco plc, in the case of gas.
2. For a full description of the market arrangements please see the UK section of the European Energy Review 2008 available on Herbert Smith's website at www.herbertsmith.com.
3. Following the ruling of the ECJ in *Citiworks AG v Sächsisches Staatsministerium für Wirtschaft und Arbeit als Landesregulierungsbehörde* (C-439/06), changes are being considered to the electricity distribution use of system arrangements in Great Britain to facilitate access by energy suppliers to customers connected to unlicensed distribution networks.
4. The Northern Ireland Authority for Utility Regulation regulates the electricity and gas markets, and the delivery of water and sewerage services, in Northern Ireland.
5. For example, under section 3B of the Electricity Act 1989 and section 4B of the Gas Act 1986, the Secretary of State may issue guidance requiring Ofgem to make a contribution towards the attainment of any social or environmental policies.
6. In August 2009, Ofgem proposed a modification to licence conditions designed to increase transparency by requiring the "Big 6" energy suppliers to publish separate financial information on their gas supply, electricity supply and electricity generation businesses, at the same time as their statutory accounts are published.
7. For example, in September 2009 two new licence conditions were introduced into domestic supply licences requiring prices on bills to set out differences in costs between payment methods and prohibiting undue discrimination in terms and conditions offered to customers.
8. *Smarter Grids: The Opportunity*, DECC, December 2009.
9. According to projections released by the European Environment Agency in November 2009, the UK is on course to surpass its share of the Kyoto 2012 target.
10. While the majority of the Climate Change Act extends throughout the UK, certain provisions do not apply to Northern Ireland or Scotland. The Climate Change (Scotland) Act 2009 also sits alongside the Climate Change Act 2008, requiring Scottish Ministers to set emissions reduction targets for Scotland and report to the Scottish Parliament.
11. The carbon budgets differ from the Package however in relation to the coverage of emissions and the timescales of the two frameworks. Carbon budgets are set for a 15 year period from 2008 to 2022, starting before and going beyond the non-EU ETS targets set out in the Package. Unlike the EU ETS, which from 1 January 2012 will include both domestic and international aviation, the carbon budgets only include emissions from domestic aviation. Net emissions from land use, land use change and forestry (LULUCF) are included in the carbon budget but not in the Package.
12. The Department of Energy & Climate Change was created in October 2008 to bring together energy policy (previously with BERR, now renamed BIS, and formerly the DTI) and climate change mitigation policy (previously with Defra, the Department for Environment, Food and Rural Affairs). Certain powers are however devolved from central UK Government to the Welsh Assembly Government, the Scottish Government and the Department of the Environment in Northern Ireland.
13. The policies have been set out under the umbrella of a Low Carbon Transition Plan, encompassing a Renewable Energy Strategy, a Low Carbon Industrial Strategy, and a Low Carbon Transport Strategy. The documentation can be accessed through the DECC website, www.decc.gov.uk, or through a multi-departmental website www.hmg.gov.uk/lowcarbon.
14. These regulations implement Articles 9a(2) and 11 of the EU ETS Directive, dealing with data collection requirements to allow the adjustment of the Community-wide quantity of allowances, and the submission of National Implementation Measures (to replace National Allocation Plans).

footnotes (continued)

15. Civil penalties of £1,500 and £10,000 will apply to operators who fail to meet the deadline for the submission of data, or fail to have the data verified.
16. These sectors will also be eligible to benefit from the 2020 European Fund for Energy, Climate Change and Infrastructure. The fund is intended to act as a model for the introduction of new private sector equity investment into key sectors including wind, biomass, gas storage, transmission and CCS. In its recent Pre-Budget Report, the UK Government announced its intention to invest 100 million in the fund.
17. Under the Climate Change Agreements (Eligible Facilities) (Amendment) Regulations 2009.
18. In 2009, 45% of power generation in Great Britain was from gas fired plant.
19. See the Institution of Mechanical Engineers (IMechE) report released in November 2009.
20. The extension of the England & Wales obligation from 2027 to 2037 for new projects (announced in November 2008) will be implemented in the next Renewables Obligation Order (from 1 April 2010) and will also place a 20 year cap on eligibility under the scheme for new projects. The level of the obligation is expected to increase in line with a "headroom" mechanism, designed to ensure that the demand for certificates under the scheme (ROCs) will outstrip supply by a certain margin, from as early as 2013. From 1 April 2010, electricity suppliers will also no longer have the comfort of a cap on the ultimate level of the obligation, which is currently set at 0.20 ROCs/MWh in line with UK's original target of achieving 20% renewable electricity under the obligation.
21. The increased banding levels will be introduced by a statutory instrument amending the Renewables Obligation Order 2009. DECC has published the draft statutory instrument which is now subject to consultation and passage through parliament. DECC anticipates that the changes will be introduced with effect from 1 April 2010.
22. The CCS Directive emphasises that CCS technology should not serve as an incentive to increase the share of fossil fuel plants within a Member State's generation mix.
23. Carbon Capture and Storage demonstration: analysis of policies on coal/CCS and financial incentive schemes: Redpoint 2009.
24. A number of consents granted for new power stations in 2007 under section 36 of the Electricity Act 1989 included obligations for the developer to have sufficient space for CCS equipment and for the design of the plant to be compatible with potential future retrofit.
25. Draft guidance for developers seeking consent under section 36 of the Electricity Act 1989 was published for consultation on 9 November 2009, alongside the draft National Policy Statement for Fossil Fuel Electricity Generating Infrastructure.
26. Where consent is given developers will be required to submit, prior to commencement of construction, a valid carbon dioxide storage permit, the necessary consents, licences and permits for the construction of the full CCS chain, and an Environmental Permit from the Environment Agency that incorporates conditions around the operation of the CCS chain.
27. The Gas Importation and Storage Zone was designated on 6 April 2009 by SI 2009/223, and coincides with the agreed boundaries of the UK Continental Shelf, but with a limit of 200 nautical miles from the baselines of the territorial sea.
28. Scottish Ministers have the regulation making powers in relation to storage sites in the territorial sea adjacent to Scotland. Certain additional consenting requirements, disapplied in the case of English territorial waters, will continue to apply to Welsh and Northern Irish waters.
29. The Storage of Carbon Dioxide (Licensing) Regulations 2010. The proposed licence would have a similar structure to a petroleum production licence. The licence would convey a general permission to conduct intrusive exploration, subject to specific consent for the drilling of any well. It would give an exclusive but time-limited right to apply for a storage permit. The storage permit would in turn give permission to construct facilities, and to conduct storage operations, and provide the means to implement obligations to ensure that the storage operations will secure permanent geological containment of the carbon dioxide, that the facilities are properly decommissioned after use, and that the behaviour of the stored material is adequately monitored during and after storage operations.
30. Low Carbon Transport: A Greener Future
31. The Cleaner Road Transport Vehicles Regulations 2010 have been published in draft, and will implement for England, Wales and Northern Ireland Directive 2007/33 of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles. It is Government's intention for the regulations to come into effect in December 2010, four years earlier than required under the Directive.
32. The Gallagher Review of the indirect effects of biofuels production.
33. A General Election is expected to take place in the UK during the first half of 2010. A change in Government would be likely to involve a number of changes to European Energy policies and priorities established by the incumbent Labour Government, and in particular some of the implementation dates mentioned in this section of the Review.

Energy law in Europe

By Silke Goldberg, a senior associate in Herbert Smith's London office

The Third Energy Package of the European Union

The Policy Context: From Sector Inquiry to Third Energy Package

In 2005, the European Commission undertook an inquiry into competition in gas and electricity markets (the "Sector Inquiry") based on Article 17 of Regulation 1/2003¹ on the implementation of the EC Treaty rules on competition, aimed at assessing the prevailing competitive conditions and establishing the causes of the perceived market malfunctioning.

The Sector Inquiry examined eight key areas of the European energy market:

- 1) market concentration/market power;
- 2) vertical foreclosure (most prominently inadequate unbundling of network and supply);
- 3) lack of market integration (including lack of regulatory oversight for cross-border issues);
- 4) lack of transparency;
- 5) price formation;
- 6) downstream markets;
- 7) balancing markets; and
- 8) liquefied natural gas (LNG).

The final report of the Sector Inquiry (the "Final Report")² showed, for instance, the level to which the unbundling requirements of the Second Gas and Electricity Directives, respectively, had been implemented across the EU had negative repercussions on the functioning of the market as a whole and on incentives to invest in networks.

As a consequence of the somewhat patchy implementation of the applicable unbundling provisions, the Final Report found new market entrants often lacked effective access to networks (in the case of gas transmission networks) and storage and liquefied natural gas terminals despite the existing unbundling provisions.

The Final Report pointed out further derivative reasons as to why these effects were particularly felt:

- The operators of the relevant network infrastructure were often suspected of favouring their own affiliates and thereby discriminating against other market participants.
- The continued vertical integration of energy undertakings led to a situation, according to the Final Report, in which operational and investment

decisions are not taken in the interest of network/ infrastructure operations, but on the basis of the supply interests of the relevant integrated company. Grid connections for power plants competing with those of the network owning energy company were also found to be affected as well as investments in interconnection infrastructure.

- The integration and concentration of generation/ imports and supply interests within the same group of undertakings reduces the incentives for incumbents to trade on wholesale markets and leads to sub-optimal levels of liquidity in these markets³.
- In relation to trades on the wholesale market, the Final Report argues that "the prevalence of long-term supply contracts between gas producers and incumbent importers makes it very difficult for new entrants to access gas on the upstream markets" and that electricity generation assets are held by "few incumbent suppliers or are indirectly controlled by them on the basis of long-term power purchase agreements [...] giving the incumbents control over the essential inputs into the wholesale markets"⁴. The resulting low levels of market liquidity constitute, according to the Final Report, an entry barrier to both gas and electricity markets⁵.

By way of a legislative follow-up to the results of the Sector Inquiry, the European Commission published, on 19 September 2007, a proposal for a Third Energy Package which, after intense negotiations amongst EU Member States and between the Council and the European Parliament was finally adopted on 13 July 2009 and entered into force on 4 September 2009 (the "TEP").

The TEP contains three Regulations and two Directives.

- 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 (the "New Electricity Directive");
- Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (the "New Gas Directive");
- Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators (the "ACER Regulation");

- Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003 (the “New Electricity Regulation”); and
- Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005A Gas Regulation amending and completing the existing Gas Regulation 1775/05 (the “New Gas Regulation”).

This overview article briefly describes and analyses the most important provisions of the TEP, which, broadly, cover five main areas:

- unbundling;
- regulatory oversight and cooperation;
- network cooperation;
- transparency and record keeping; and
- access to storage and LNG facilities.

For an analysis as to how individual aspects of the TEP will impact the regulatory regime of a specific jurisdiction, please refer to the relevant national chapter in this edition of European Energy Review.

A new unbundling regime⁶

One of the most important features in the New Electricity and New Gas Directives is the “unbundling” regime, ie the separation of the operation of gas pipelines and electricity networks at transmission level from the business of producing or supplying either gas or electricity⁷.

With the shift away from centrally owned transmission (transport) network in the wake of the liberalisation of the EU energy sector, investment adequacy became a concern⁸, especially in relation to vertically integrated Transmission System Operators (TSOs) who might have short-term, compelling reasons not to invest in networks if such investments would come to benefit their competitors. The Commission has consistently argued that the unbundling of TSOs will augment the EU’s supply security as it seems to lead to increased investments in the network facilities. Given that the aforementioned main investment disincentive has been removed, this, together with the unbundling regime, will contribute to furthering the supply continuity and reliability.

In its Impact Assessment⁹, the Commission argues that within three or four years of TSOs undergoing ownership unbundling, investments in the networks in both the electricity and gas sectors had doubled. In some cases, for instance in the Spanish REE (year before unbundling: 2002, network investment: 203m; year after unbundling: 2003, network investment: 215m), the Czech CEPS (2002: CSK 506.6m; 2003: CSK 1388.3m), and the Dutch Gasunie (2004: 114m; 2005: 257m), this upwards trend was even stronger¹⁰.

The Commission continues to argue that the same increase in network investment cannot be shown for vertically integrated TSOs. However, there seems to

be a methodical inaccuracy in the data used by the Commission: the authors of the Impact Assessment concede that for vertically integrated TSOs “there is generally less data on network investment publicly available”¹¹. The Impact Assessment nevertheless proceeds to draw the comparison on the basis of the data available for some of the German, French and Italian TSOs and to argue that, whilst there was an increase in network investment in recent years, this was less significant than in the case of those TSOs that had undergone ownership unbundling¹².

Whilst the Commission and European Parliament originally backed full ownership unbundling in both the gas and electricity sectors, political pressure from Member States opposing unbundling meant that a compromise had to be found. Under the agreement between the Council and the European Parliament, Member States have three options:

- full ownership unbundling;
- the independent system operator (ISO) model; or
- the independent transmission operator (ITO) model.

The ownership unbundling approach entails a full separation between the operation of gas and electricity transmission networks from supply and production/generation activities. Under this regime, operators of gas and electricity grids can no longer be affiliated or be part of a group which is also active in supply, generation or production/generation. The operator of the network will be required to own and control the network.

Under the unbundling regime a person or company may, under certain circumstances, still be able to hold shares in both a network operator and a supply/production undertaking as long as these shares represent a non-controlling minority interest. A minority shareholder, who may not have voting or other blocking rights in the undertakings, nor be allowed to appoint members of the undertakings’ boards. No person may be a member of the boards of both undertakings. This provision is of particular relevance to non-sector investors (eg, pension funds).

In the ISO approach, vertically integrated companies may retain the ownership of their network assets, but the network is managed by an ISO. The ISO has to be an undertaking or entity which is completely separate from the vertically integrated company and must perform all functions of a network operator. The ISO entity will need to comply with the same unbundling requirements as other network operators. As such, the ISO may not hold any interest in a supply/production undertaking.

In order to strengthen the ISO model, the TEP provides for a number of additional regulatory controls: the network owner which is still active in supply or production will have to legally and functionally unbundle that part of its company which owns the network, and will be required to finance the investment decisions made by the ISO. The identity of the ISO will be approved by the Commission (with the input of the new Agency for the Co-operation of Energy Regulators); and, once appointed, the ISO has to commit to complying with a ten year network investment plan agreed by the regulatory authority.

The third option, the ITO model, was introduced as a compromise model after eight Member States felt that both ownership unbundling and the ISO approach were unsuitable for their national regulatory regimes. It preserves integrated supply and transmission companies, but obliges such companies to comply with additional rules to ensure that the two activities are operated independently, such as:

- preventing the management of TSOs from having certain positions of responsibility, interest or business relationships, directly or indirectly, with the relevant vertically integrated undertaking. This should apply to the majority of management for three years prior to their appointment;
- placing a minimum period of six months prior to the appointment of a person to the rest of the management team of the TSO during which that person may not hold any management position or exercise any other relevant activity in the vertically integrated undertaking. The rules are intended to encourage the relevant national regulator to vet the executive management;
- examining network development and investment decisions taken by an ITO to ensure they are consistent with relevant Community-wide plans;
- working against discriminatory behaviour by the ITO (and on the influence exerted by the relevant vertically integrated undertaking), and restricting the ITO's access to the capital market, to be overseen by a supervisory body; and
- enforcing compliance with the ITO provisions. Penalties, depending on the breach, are defined in respect of the turnover of the ITO or of its relevant parent company. The ultimate penalty for a persistently non-compliant ITO model would be the mandatory introduction and designation of an ISO.

The Commission is to conduct a specific review of the ITO-related provisions, using effective and efficient unbundling as a benchmark, two years after implementation. Such a review would, in turn, lead, no later than three years after implementation, to proposals to ensure fully effective independence of the TSO where necessary.

The ITO model will only be applicable in Member States where TSOs belong to a vertically integrated undertaking. Member States that have already introduced the ISO model or mandatory ownership unbundling models will not be able to revert to a TSO model. Therefore, the ITO model constitutes the lowest threshold for network unbundling which will in future be legally possible across the EU.

The ITO model can perhaps best be characterised as the "status-quo-plus" model in that it will allow Member States such as France, Austria and Germany to maintain current arrangements where transmission system operators (TSOs) belong to a vertically integrated undertaking.

In addition, the New Gas and New Electricity Directives contain, in Article 9(9) in each case, a specific provision for the situation in Scotland, where the transmission networks are owned by the two Scottish transmission companies (Scottish Power and Scottish and Southern

Energy) and operated by National Grid. The current model in Scotland is considered to fall short of the ISO model but held to be an effective model for the independence of the transmission system operator.

A softened third country clause

The original Commission proposal for the TEP contained a so-called "third country clause", thought to be aimed at Russian energy giant Gazprom, which would have required non-EU countries to comply with the EU regime if they wished to acquire a significant interest in, or control over an EU transmission network, and would have given the Commission a right to intervene in relation to such acquisitions. In the adopted version of the TEP, the third country clause has been slightly softened, although the principle of the application of the unbundling regime to non-EU companies and tight controls over third country investments in EU TSOs remains firmly established.

The TEP provides that national regulatory authorities ("NRAs") are to certify TSOs before they are allowed to take up their function as TSOs. Under the new third country clause, national regulators are required to refuse certification of a TSO if the relevant company does not comply with the unbundling requirements, and its market entry would jeopardise the Member State's or the EU's security of supply. In addition, national regulators must notify the European Commission if:

- a transmission system owner or operator that is controlled by a party from a non-EU country applies for certification; or
- if any circumstances arise which would result in a party from a non-EU country obtaining control of a transmission system owner or operator.

Transmission system operators (rather than the transmission system owners) must notify the relevant NRA if any circumstances arise that would result in an entity from a non-EU country acquiring control of the transmission system or its operator. The relevant NRA must also seek the view of the European Commission as to whether the foreign entity passes the unbundling and energy security tests and take "utmost account" of the Commission's view.

When making a decision in relation to energy security, both the NRA and the Commission must consider the particular facts, international law and any agreement between the EU or the Member State and the relevant non-EU country to address energy security. The implication is that the absence of such an agreement will make an approval much less likely.

However, given that the unbundling provisions have been softened to include the ITO model, it is thought that compliance with the unbundling provisions of the TEP will now be easier for non-EU companies as TSOs may, under the ITO model, remain part of a vertically integrated energy company.

Regulatory oversight

Whilst the Second Electricity and Gas Directives¹³ required Member States to establish NRAs, these had different

levels of authority and independence in various Member States. Whereas some in some Member States, NRAs had become well-established bodies with substantial powers and resources, regulatory authorities in other Member States had only recently been established, with their powers weaker or dispersed over different governmental bodies and subject to ministerial or governmental control of varying degrees

Under the New Electricity and Gas Directives¹⁴, the NRAs have to be legally distinct and functionally independent of any other public or private entity, and that its staff and any member of its decision-making body act independently of any market interest and neither seek nor take instruction from any government or other public or private entity. For that purpose, NRAs will have to have an independent legal personality, budgetary autonomy, appropriate human and financial resources and independent management.

In the New Electricity and Gas Directives, the NRAs have seen their market regulation powers strengthened, and have been assigned additional tasks, in particular in the following areas¹⁵:

- monitoring compliance of transmission and distribution system operators with third party access rules, unbundling obligations, balancing mechanisms, congestion and interconnection management;
- reviewing the investment plans of the transmission system operators, and providing in its annual report an assessment of how far the transmission system operators' investment plans are consistent with the Europe-wide 10-year network development plan;
- monitoring network security and reliability, and reviewing network security and reliability rules;
- monitoring transparency obligations;
- monitoring the level of market opening and competition, and promoting effective competition, in cooperation with competition authorities; and
- ensuring that consumer protection measures are effective.

For the first time in European energy legislation, the TEP is setting specific objectives with a clear European dimension for the NRAs. The New Gas and New Electricity Directives provide that NRAs' objective is to "promot[e], in close cooperation with the Agency, regulatory authorities of other Member States and the Commission, a competitive, secure and environmentally sustainable internal market in natural gas within the Community, and effective market opening for all customers and suppliers in the Community, and ensuring appropriate conditions for the effective and reliable operation of gas networks, taking into account long-term objectives¹⁶".

As the Sector Inquiry has shown, the European energy market has some way to go before it functions as an effective market which would be better capable of allocating scarce resources on time, and improve investment decision making on generation and infrastructure assets.

The effectiveness of the NRA's strengthened powers will, however, need to be demonstrated in practice and it will be sometime after the adoption and transposition of the TEP into national laws before an evaluation will be possible.

Agency for the Co-operation of Energy Regulators

In order to reinforce the position of regulators at European level and to institutionalize their co-operation, the ACER Regulation creates the Agency for Co-operation of Energy Regulators ("ACER").

ACER will be governed and its institutional setting will be based on the standard rules and practices for Community regulatory agencies. However, to ensure the necessary independence of regulators at the European level, ACER will be unique in that it will have a separate board of regulators. This board will be solely responsible for all regulatory matters and decisions. It will function alongside an Administrative Board which will be responsible for administrative and budgetary matters. The Director, appointed by the Administrative Board, after consulting the Regulatory Board, will be chosen from a shortlist adopted by the Commission. The Director will represent ACER and shall be responsible for the day-to-day management. In addition, the structure of ACER will include a Board of Appeal, which is competent to handle appeals against decisions adopted by ACER.¹⁷

The budget of ACER will come from the general budget of the European Communities, from fees paid to ACER in relation to third party access exemption decisions where the relevant infrastructure is in more than one member state and from voluntary contributions.¹⁸

ACER will generally be competent to:

- issue opinions addressed to Transmission System Operators;
- issue opinions addressed to regulatory authorities;
- issue opinions and recommendations addressed to the Commission;
- take individual decisions on technical issues.

As such, ACER may, upon a request from the Commission or on its own initiative, provide an opinion to the Commission on all issues related to the purpose for which it has been established.

Other tasks of ACER include the provision of an opinion to the Commission on:

- the draft statutes, list of board members and draft rules of procedure; and
- the technical or market codes, on the draft annual work programme and the draft 10-year investment plan of the European Networks of Transmission System Operators for Electricity and Gas, respectively (see below).

ACER may, in accordance with its own work programme or at the request of the Commission, adopt non-binding guidelines to assist regulatory authorities and market players in sharing good practice and promote cooperation between the national regulatory authorities and between regulatory authorities at regional level¹⁹.

At the request of any regulatory authority or of the Commission, ACER will also issue opinions on whether a decision taken by a regulatory authority complies with any guidelines referred to in the New Gas and Electricity Directives and New Gas and Electricity Regulations. Likewise, a national regulatory authority may call on ACER to issue an opinion where the national regulator encounters difficulties with the application of the Guidelines referred to in the same Directives and/or Regulations²⁰.

ACER can be the competent authority to decide the regulatory regime for infrastructure connecting at least two Member States and grant exemptions from the third party access regime where the relevant infrastructure concerned is located in the territory of more than one Member State²¹.

Compared to the version of the ACER Regulation originally proposed by the European Commission, the adopted version mandates ACER with a range of additional tasks, which have widened ACER's scope considerably. ACER's tasks now include:

- participation in the development of European network codes;
- monitoring the development of the energy markets, in particular in relation to retail gas and electricity prices;
- monitoring the implementation of the TSO's 10-year infrastructure investment plans; and
- establishing non-binding "framework guidelines" on conditions for access to the network for cross-border electricity and gas exchanges²².

Whilst ACER's competencies are often expressed to be of an advisory nature, the ACER Regulation does grant it decision making powers in some areas, in particular in relation to cross-border projects and co-operation. It also seems to assume the role of "Regulator of last resort" in situations where, in Member State with an ISO-System, the national regulator has failed to appoint an ISO in the prescribed time.

On a number of topics, ACER may issue own-initiative opinions; on other issues, the Commission may request an opinion from ACER. This relatively vague framework seems designed to leave ACER some freedom to fully define and exercise its role. Depending on whether or not its Director steps up to this challenge, ACER may well prove to be the first step towards a European regulator.

Although the ACER Regulation has entered into force in September 2009, it is unlikely that ACER will be fully operational before the Directives of the TEP have been transposed into national law, as the Articles in the ACER Regulation relating to ACER's policy and legal task will only be applied once Member States have implemented the New Electricity and New Gas Directives in order to avoid any inconsistencies in the regulatory regime.

However, various organs of ACER could be set up quickly. This would include the Board of Regulators, the Administrative Board, the Director of ACER, and his/her staff as well as the Board of Appeals. It is likely that the establishment of ACER will be a priority area of work for NRAs during the next two years. ACER is likely to

be initially located in Brussels and to be relocated at a later date. So far, Slovenia, Hungary and Romania have expressed their interest in hosting ACER.

Cooperation between Transmission System Operators

It has been argued that the electricity outages in Europe over the last few years have been due to technical failures in the networks rather than shortages in generation capacity or fuel²³. The increasing energy demand and simultaneous import dependency of the EU will require improved transmission networks able to cope with the "energy traffic" created by the export and import electricity and gas in peak demand conditions.

Cooperation in grid operation is therefore indispensable, especially in the electricity sector, where co-operation between TSOs will make an important contribution to network reliability particularly in heavily interconnected areas. The greater transparency will allow investments to be made where they are most effective and improving network reliability through coordinated investments²⁴.

The New Electricity and Gas Regulations²⁵ formalise the cooperation between transmission network operators, which at present is channelled through platforms such as GTE and ETSO, through the establishment of a European Network for Transmission System Operators for the electricity and gas sector ("ENTSO-E" and "ENTSO-G", respectively). The ENTSOs will in turn be responsible for four core areas²⁶:

The first concerns the development of coherent market and technical codes needed for the integration of the electricity and gas markets, which the ENTSOs are tasked to develop in co-operation with ACER and the Commission. The benefit of such coherent European codes generally to be found in the intended elimination of inconsistencies at national level regarding, eg, tariff structures, capacity allocation rules, balancing arrangements and trading timetables and security of supply measures. At present, such differences in market design lead to market segmentation, with some national markets remaining split into different local tariff or balancing areas. However, at the same time, the development of the European network codes will necessarily cause some friction to the existing, national approaches and is likely to be a long-term project the results of which will not be available for some time to come even after the transposition of the New Electricity and New Gas Directives into national law.

The second area of co-operation concerns the research and innovation activities of common interest. Under this heading, the ENTSOs are to identify, finance and manage research and innovation activities necessary in relation to the technical development and evolution of the European electricity and gas networks, in particular to promote security of supply and energy efficiency and to enable penetration of low carbon technologies.

The third area of co-operation relates to the coordination of grid operation, ie, to exchange network operational information and the coordinated publication of information

on network access, and the fourth main area of co-operation is the co-ordination of the planning of network investments and the monitoring the development of the transmission network capacities. The two ENTSOs must publish a European-wide and ten year forward-looking investment plan every two years.

The overall effect of the increased co-operation of TSOs in the framework of the strengthened ENTSOs will undoubtedly be a greater degree of market harmonisation which in turn might result in better network and operational reliability and as such in better supply security. Therefore, given the range of issues with which the new ENTSOs will be charged, the question arises whether the ENTSOs are only a stepping stone on this journey towards greater network harmonisation and interoperability, the next stop being a single European TSO under ACER as the single European regulatory authority.

Transparency and record keeping obligations

The New Electricity and New Gas Directives also set out a number of record keeping obligations on electricity generators, gas network operators, and supply undertakings who will be required to keep record of all data relating to operational decisions and trades.

The Commission hopes that such obligations will enable regulators to effectively assess allegations of market abuse and study past behaviour of market participants. In particular, the Commission believes that a review of the relevant records will enable regulators to investigate whether operational decisions were based on sound economic reasoning rather than attempts to manipulate the market. The Commission has stated that these record keeping obligations will, in case of some types of traders (eg, banks), not be in addition to relevant record keeping obligations of such traders under the Markets in Financial Instruments Directive.

It is therefore proposed that prior to adoption of guidelines defining record keeping requirements, the Agency for the Cooperation of Energy Regulators and the Committee of European Securities Regulators (CESR) will advise the Commission on the content of the relevant guidelines.

Access to storage and LNG facilities

The New Gas Regulation largely serves to make the currently voluntarily applicable Guidelines for Good Third Party Access Practice for Storage System Operators (GGPSSO) of the Madrid Forum binding on relevant market participants as the GGPSSO were generally found not to have been widely implemented.

In addition, the New Gas Directive establishes legal and functional unbundling rules in relation to storage system operators who are part of supply undertakings²⁷ and enhance the powers of NRAs to oversee access to storage²⁸.

Taken together, the New Gas Directive and the New Electricity Regulation are set to overhaul the current rules for exemptions from regulated third party access for major new infrastructure²⁹. The European legislators believe that

a streamlined procedure for applying for and granting exemptions, as well as a clarification of some of the conditions, would benefit the market generally. The Article 36 of the New Gas Directive is therefore considerably more detailed than the currently applicable Article 22 of the Second Gas Directive, thus providing a clear list of applicable conditions and detailed procedural provisions. This procedure however, has at the same time become more complex due to the added involvement of ACER in the decision making process where the infrastructure crosses the border of two or more Member States.

In addition, the Commission will be proposing guidelines to assist applicants and regulators in applying the conditions for an exemption. Under these guidelines, the minimum requirements for the allocation of capacity and congestion management provisions for the new infrastructure that have so far been applied on a case-by-case basis are likely to become general requirements applicable to all interested parties.

Other TEP elements

The New Gas Directive also promotes “regional solidarity” for energy supply security by requiring Member States to co-operate in the event of “severe disruptions” of gas supply. This could be particularly important in case of interrupted supply as seen this winter in Hungary and Slovakia as a result of the Russia–Ukraine gas dispute³⁰.

In addition, Member States are tasked with taking measures to address energy poverty such as National Energy Action Plans or benefits in social security systems to guarantee necessary energy supply to vulnerable customers³¹.

Implementation - the way forward

Member States have until March 2011 to transpose the majority of the provision in the New Electricity and Gas Directives into national law, the exception being the “third country clause” which will need to be transposed by March 2013. The New Gas and Electricity Regulations and ACER Regulation have entered into force as of September 2009; however, in order to avoid a discrepancy between the exemption regime for new infrastructure in the gas sector, which is contained in the New Gas Directive and the corresponding regime in the electricity sector which is contained in the New Electricity Regulation, the latter will only be applied as of 3 March 2011. Likewise, Articles 5-11 of the ACER Regulation, which deal with detailed tasks of ACER, will only be applied from that date.

Conclusion: The Third Energy Package of the European Union

Whilst the introduction of de-facto four unbundling options, the TEP did not bring the clear sea-change for the current unbundling situation that the Commission had originally set out to achieve. However, the TEP does bring considerable clarification on a number of existing rules, particularly in the area of third party access exemptions.

The TEP also gives legal status to Commission guidelines and generally expands the Commission's competence to give guidelines powers in a number of legal policy areas, which is a change from the current practice by which the Commission de-facto already issues such guidelines, through the publication of non-binding staff working papers, eg, on the meaning of legal, managerial and accounting unbundling or the third party access exemption regime which were never formally legitimized but had come to be perceived as official guidelines on the relevant topics.

The harmonisation of the competencies of NRAs and the introduction of ACER has been interpreted as a necessary step towards a European regulator, although some commentators have expressed concerns, also against the background of the new European objectives for the NRAs, that the latter will be kept busy with a rich array of monitoring tasks whilst decision making power in questions of regulatory policy is being shifted to ACER and the ENTSOs.

Whilst some voices can already be heard to wish for a Fourth Energy Package, given that the full effect of the transposition of the TEP into national law will only become apparent in 2013 it is perhaps too early to venture an opinion of the effectiveness of the TEP whose success or otherwise will necessarily lie in its practical application across all Member States.

The EU Climate Change Package

In January 2008, the European Commission proposed a legislative package focussed on a range of measures designed to shape the European Union's climate change policies and actions (the "Climate Change Package") which was adopted at first reading in the co-decision procedure, having been discussed at the European Council of 12 December 2008. In accepting all of the amendments the European Parliament adopted on 17 December 2008, the Council definitively adopted the new acts on 6 April 2009, thereby passing the Climate Change Package into European law.

The Climate Change Package contains four Directives, one Regulation and one Decision:

- Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community (the "New EU ETS Directive");
- Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 (the "GHG Reduction Decision");
- 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 Directive 2001/77/EC and 2003/30/EC (the "Renewable Energy Directive");

- Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 200/60/EC, 2001/80/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (the "CCS Directive");
- 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 (the "Biofuel Directive"); and
- Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles (the "Emission Standard Regulation").

In this overview article, the key elements of the Climate Change Package are described and analysed. For a detailed analysis as to the impact the Climate Change Package will have in EU Member States, please refer to the relevant national chapters in this edition of European Energy Review.

New EU ETS Directive

The New EU ETS Directive amends the currently applicable version of the EU Emissions Trading Scheme and introduces a number of important changes to the EU ETS that will take effect from Phase III (2013-2020) of the scheme, and provide a clearer sense of the future of the scheme. The main changes include a declining emissions cap, increased auctioning of allowances and longer trading phases. The increase in auctioning will be introduced more slowly than was proposed by the European Commission when it announced the climate and energy package in January 2008.

In particular, the New EU ETS Directive expands the EU ETS to cover new activities and gases, including:

- carbon dioxide emissions from the petrochemicals, ammonia and aluminium sectors;
- nitrous oxide emissions from the production of nitric, adipic and glycolic acid; and
- perfluorocarbon emissions from the aluminium sector.

Although much of the attention on Phase III has surrounded its expansion, the New EU ETS Directive confirms that the EU ETS will continue to be focused on large energy-intensive sectors.

One of the main features of the New EU ETS³² Directive is the increased harmonisation and centralisation of the operation of the EU ETS. As such, the allocation of allowances will be made centrally rather than by Member States under National Allocation Plans. This change

from the current practice which EU ETS participants have claimed has led to competitive distortions within sectors due to different allocation rules being adopted by Member States. Likewise, the administration of the New Entrant Reserve (equivalent to 5% of total annual allowances to be awarded) will be centralised; and records relating to allowances, and trading in allowances, will be held in a central register rather than in national registries. The proceeds from auctioning 300 million allowances reserved for new entrants to the EU ETS will be used to support renewable energy projects and up to 12 CCS demonstration projects³³.

Overall, the New EU ETS Directive decreases to the new EU-wide allowance cap. From 2013, the cap will decrease year on year by 1.74% of the Phase II cap from the total amount of 1.974 billion allowances in 2013 to 1.720 billion in 2020 (equivalent to an overall reduction of 21% in allowances available by 2020 compared to 2005). After 2020, the cap will continue to decrease by 1.74% per year, but this rate of reduction may be revised by 2025; and allowances issued from 2013 onwards can be banked for use in any subsequent phase of the scheme³⁴.

A major change will be a shift away from allocating allowances to operators free of charge, to a process involving the compulsory auctioning of allowances. Free allocations of allowances will be phased out progressively, with 20% of available allowances being auctioned in 2013, increasing to 70% in 2020, with a view to the full quota of allowances being auctioned in 2027³⁵.

For the electricity sector, stricter rules will apply in that no allowances will be allocated free of charge to electricity generators as of 2013 (except for district heating schemes, high-efficiency combined heat and power schemes, and where eligible Member States have opted to derogate from this rule). Member States are to conduct auctions, with 90% of the allowances to be auctioned being given to Member States in proportion to their verified emissions for 2005, and the remaining 10% of allowances being given to Member States with lower per capita income. A further provision has been added to allow a redistribution of 2% of auctioned allowances to take into account Member States which, in 2005, had achieved greenhouse gas emissions reductions of at least 20% compared to 1990 levels (the twelve "new" Member States and Greece and Portugal will benefit from this measure)³⁶.

The option available to Member States to exempt small installations has been extended to cover all small installations regardless of sector or the nature of the activity undertaken. The emissions threshold below which an installation is classified as "small" has been raised from 10,000 to 25,000 tonnes of carbon dioxide emitted per year. In addition, in the case of combustion installations, the capacity threshold has been raised from 25 MW to 35 MW. Member States have also been given the option of excluding hospitals from the exemptions³⁷.

Member States may compensate certain installations for EU ETS costs passed on to them through higher electricity prices if these costs might otherwise expose

them to the risk of carbon leakage. The Commission will amend its guidelines on state aid for environmental protection to allow this compensation to be granted.

In order to assist Member States with less developed generating infrastructure and economies, certain Member States may opt to derogate from the rule preventing the allocation of allowances to electricity generators free of charge. This option will only be available where certain conditions relating to the interconnectivity of the electricity grid, the share of fossil fuels in electricity generation, and GDP per capita are fulfilled. Even if the option is exercised, 30% of the allowances available for electricity generators must be auctioned in 2013, rising progressively to 100% by 2020, and the Member State must invest in energy infrastructure, clean technologies and energy diversification an amount equal to the market value of the free allocation. In addition, free allocations can only be made for emissions from installations that are operational or under construction no later than the end of 2008.

The adopted version of the New EU ETS Directive contains detailed provisions as to the criteria that will be used to determine sectors exposed to a significant risk of "carbon leakage" (such as the relocation of manufacturing or other activities covered by the scheme outside the EU where similar emission reduction constraints have not been imposed). The Commission will identify those sectors that will face significantly increased production costs, ie, costs comprising (more than 5% of its gross value added) and international competition (more than 10% non-EU imports and exports). The publication of the Commission's list of affected sectors is due by 31 December 2009. By June 2010, the Commission will review carbon leakage generally in light of any international agreement that is reached which may substantially reduce the risk of carbon leakage. The Commission has stated that this could involve maintaining or adjusting the proportion of allowances received free of charge by sectors deemed to be at risk of carbon leakage³⁸.

With regard to credits generated by Clean Development Mechanism (CDM) and Joint Implementation (JI) projects, the New EU ETS Directive envisages two scenarios³⁹.

Generally, the New EU ETS Directive extends the ability to use credits generated by CDM and JI projects issued in respect of emission reductions occurring before 2013 or generated by projects established before 2013 into Phase III of the EU ETS.

Prior to or without a global successor agreement to the Kyoto Protocol, operators of relevant installations will be able to use credits allocated to them for the period 2008-2012 that they have not already used. This could represent up to more than one third of the emission reductions required between 2013 and 2020. However, in this scenario, only credits from project types which were accepted by all Member States during the 2008-12 period will be eligible for use to guarantee that JI/CDM credits are treated equally throughout the EU ETS. Provided that the new credits do not increase the overall number

of credits available, JI/CDM credits from new energy efficiency or renewable energy projects that promote sustainable development could be used in accordance with agreements concluded with third countries; and JI/CDM credits derived from new projects that started from 2013 onwards would be allowed from Least Developed Countries without the need to conclude an agreement with these countries (if CERs stem from project types accepted by all Member States during 2008-2012)⁴⁰.

If a global successor agreement to the Kyoto Protocol has been reached, the limit on the use of JI/CDM credits will be automatically increased by up to half of the additional reduction effort and operators of participating installations may, in addition to the credits provided for in the New EU ETS Directive, use CERs, ERUs or other approved credits from third countries which have ratified the international agreement on climate change succeeding the Kyoto Protocol⁴¹.

In another change from current practice, the EU ETS will, from 2013, be extended to cover the capture, transport and storage of carbon dioxide. However, in order to support the development of CCS, operators will not need to surrender any allowances for carbon dioxide that is permanently stored in a licensed CCS facility (see section below on the CCS Directive).

Member States are obliged to transpose the New EU ETS Directive into national law by 31 December 2012. In order to avoid any legal uncertainty, the New EU ETS Directive specifies that the relevant directives amended by the New EU ETS will continue to apply until 31 December 2012.

The GHG Reduction Decision

The GHG Reduction Decision sets binding greenhouse gas emissions targets for individual EU Member States for sectors of the economy not covered by the EU ETS and provides an indication of the extent to which Member States will be required to address and reduce emissions from non-EU ETS sectors (such as surface transport, construction, and agriculture) over the next decade.

The targets for individual Member States amount to an average reduction of 10%⁴². This reduction, combined with the agreed 21% reduction for EU ETS sector emissions, is designed to ensure that the EU meets its current overall target of a 20% reduction in emissions by 2020.

Those Member States with lower per capita income and strong prospects for future economic growth (mostly the “new” Member States) may increase their greenhouse gas emissions by up to 20% by 2020 compared to 2005 levels, whereas Member States with higher income per capita must reduce their emissions by up to 20% by 2020. A reduction target of 16% has been set for the UK, and a reduction target of 14% has been set for Germany and France. The individual targets are the same as those proposed by the Commission when it announced the climate and energy package in January 2008, but they will be reviewed if an international agreement succeeding the Kyoto Protocol can be agreed⁴³.

In order to set a trajectory to meet the target of a 20% reduction in emissions by 2020, the GHG Reduction Decision also sets annual binding emissions limits for each Member State. Several flexibility measures are provided allowing Member States to bank and borrow up to 5% of limits between years; transfer “overachieved” emissions reductions between Member States; and use, without limit, credits generated by emissions reduction projects within the EU⁴⁴.

The GHG Reduction Decision allows Member States that are required to reduce their emissions, or are allowed to increase them by up to 5%, to use an additional amount of CERs equal to 1% of 2005 emissions. These CERs can come only from CDM projects in less developed countries and are only available to Member States that meet certain conditions (de facto, it is thought that the only Member States that could benefit from this measure are Austria, Finland, Denmark, Italy, Spain, Belgium, Luxembourg, Portugal, Ireland, Slovenia, Cyprus and Sweden)⁴⁵.

Member States already monitor and report greenhouse gas emissions annually. The GHG Reduction Decision now provides that, if a report indicates non-compliance with a limit for a given year (taking into account any use of the flexible measures or CDM/JI credits), the Member State will have to submit a corrective action plan to the Commission detailing the measures they intend to take to rectify the situation⁴⁶. If a Member State fails to take corrective action, formal enforcement action can be taken⁴⁷.

The GHG Reduction Decision does not, however, include the enforcement mechanism requested by the European Parliament which would have required a Member State that fails to meet its target to pay an “excess emissions penalty” equivalent to the fines payable under the EU ETS - ie, €100 per tonne of carbon dioxide emitted.

The GHG Reduction Decision has already entered into force.

The Renewable Energy Directive

The Renewable Energy Directive promotes the use of renewable sources for electricity generation and sets a target for energy from renewables of 20% of total energy consumption across the EU by 2020, including a further target of 10% for energy from renewable sources for each Member State’s transport energy consumption.

In order to achieve the overall targets, the Renewable Energy Directive sets a mandatory national target for each Member State stating the overall share of gross energy consumption that must come from renewables, taking the differing levels of progress achieved by Member States to date into account⁴⁸. The mandatory national targets will provide certainty for investors and should encourage technological development. To ensure that the mandatory national targets are achieved, Member States are required to follow an indicative trajectory towards the achievement of their target and each will produce a National Action Plan. The plan will set national targets for the share of energy from renewable sources to be used to meet demands for transport, electricity, heating and cooling in 2020.

Member States are free to decide their preferred mix of renewable sources, but must present National Action Plans, based on an “indicative trajectory”, to the Commission by 30 June 2010⁴⁹. Progress reports must then be submitted every two years. The plans will need to be split so that three sectors are identified separately, namely: electricity, heating and cooling, and transport⁵⁰.

Member States can apply financial support schemes in relation to the mandatory targets, although it will not be mandatory to link these with schemes in other Member States. The Renewable Energy Directive also lays down rules relating to statistical transfers between Member States, joint projects between Member States and with non-EU countries, Guarantees of Origin, administrative procedures, information and training, and access to the electricity grid for energy from renewable sources⁵¹.

The Renewable Energy Directive contains a series of interim targets for all Member States, in order to ensure steady progress towards the 2020 targets:

- 25% of the overall 2020 target to be achieved between 2011 and 2012;
- 35% of the overall 2020 target to be achieved between 2013 and 2014;
- 45% of the overall 2020 target to be achieved between 2015 and 2016; and
- 65% of the overall 2020 target to be achieved between 2017 and 2018.

There are no financial penalties for failing to achieve these interim targets. The Commission does however reserve the right to issue infringement proceedings if Member States do not take “appropriate measures” to try to meet their targets.

Two or more Member States can cooperate on joint projects relating to the production of energy from renewable sources. Member States can also join forces with one or more non-EU countries on renewable electricity generation projects. Member States will be permitted to link their national support schemes to those of other Member States, and will be allowed under certain circumstances to count the import of “physical” renewable energy from third-country sources towards their targets. It will not be possible to count “virtual” imports, based on investments in non-EU countries towards a Member State national target⁵².

A system requiring open trading in renewable energy certificates between participants across Member States was rejected in favour of a system only permitting Member States themselves to transfer excess renewables credits. These “statistical transfers” can only take place if the Member State has reached its interim renewables targets⁵³.

The Renewable Energy Directive states that Guarantees of Origin in relation to renewable energy are only to be used to prove the quantity of energy from renewable sources in a supplier’s energy mix to final consumers. Member States must ensure that a Guarantee of Origin is issued in response to a request from a generator of

renewable electricity and that guarantees will be given in relation to each 1MWh generated⁵⁴.

In addition, the Renewable Energy Directive establishes binding criteria to ensure that biofuel and bioliquid production is environmentally sustainable. For the purposes of meeting national targets, energy from these sources must fulfil the requisite criteria. The criteria relate to biodiversity, the protection of rare, threatened or endangered species and ecosystems, and greenhouse gas emissions savings.

From 2017 onwards, the greenhouse gas emissions savings resulting from the use of biofuels produced in existing biofuel production plants must be at least 50% compared with the emissions from using fossil fuels. The greenhouse gas emissions from the use of biofuels produced in new installations must be at least 60% lower than those from fossil fuels. Unlike traditional, “first-generation” biofuels, it is thought that second-generation biofuels do not present the same risks to the security of food supplies as these biofuels are, for example, produced from wastes, residues, or biomass such as algae, wood residues, or paper waste. To promote those new, more sustainable alternatives, “second-generation” biofuels will receive double credits for the purposes of the overall 10% transport target⁵⁵.

In the past many smaller producers of renewable electricity have argued that a lack of transparency and restricted access to electricity grids has prevented them from competing in the market. The directive requires Member States to ensure that transmission and distribution system operators provide either priority access or guaranteed access to the grid for electricity produced from renewable energy sources. System operators will be required to provide any new generator wishing to be connected to their network with a timetable and a comprehensive estimate of costs associated with the connection. In addition, Member States are required to develop transmission and distribution grid infrastructure, intelligent networks, storage facilities and systems that can be operated safely while accommodating renewable generation⁵⁶.

In their National Action Plans Member States are required to assess whether there is a need to build new district infrastructure for heating and cooling using energy produced from renewable sources (including large biomass, solar and geothermal facilities) in order to achieve their mandatory 2020 national target. Local and regional administrative bodies should be advised to “ensure equipment and systems are installed for the use of heating, cooling and electricity from renewable sources, and for district heating and cooling when planning, designing, building and refurbishing industrial or residential areas”. In particular, they should be encouraged to include heating and cooling systems when planning city infrastructures⁵⁷.

Member States must transpose the Renewable Energy Directive by 5 December 2010.

The CCS Directive

The climate change and renewable energy package includes a directive which provides a framework for carbon capture and storage in the EU (the CCS Directive) supporting CCS as an emissions reduction option.

The key provisions of the CCS Directive are:

- the creation of a permit based CCS storage regime to be administered by Member States and the amendment of existing EU legislation which prohibits or inhibits CCS⁵⁸;
- the establishment of a regime for operators holding permits to pass long-term liability for leakage from storage sites to the licensing Member State, provided certain handover criteria are met⁵⁹; and
- requirements for all new combustion plants in the EU built without CCS to have space for CCS equipment and to have carried out studies into the availability of storage sites and the feasibility of “retro-fitting” capture equipment⁶⁰.

By joining up the funding mechanism under the New EU ETS Directive and the provisions of the CCS Directive, the Climate Change Package provides that CCS will be financially incentivised through the EU ETS from Phase III (2013 – 2020) and Member States can opt-in for the inclusion of CCS in Phase II (2008 – 2012) (see section on the New EU ETS Directive above). Specific funding for CCS is made available through its inclusion in the EU ETS and allocation of up to 300 million EU ETS allowances from the new entrant reserve to fund up to 12 CCS demonstration projects⁶¹. Support for such projects will be provided via Member States and the mechanics of how and when such support will be made available are currently unclear.

As a result of the CCS Directive, carbon dioxide stored in geological formations will not be classed as ‘emitted’ for the purposes of the EU ETS so that credit is given to power stations with CCS technology which will not be required to surrender allowances for carbon dioxide which is stored.

The CCS Directive envisages two types of permit. The first is an exploration permit to allow the specified exploration works to be carried out and entitling the permit holder to explore the area covered by the permit for suitable geological formations on an exclusive basis⁶². The second is a storage permit for the development and utilisation of geological formations within the permit area as storage sites for carbon dioxide, and allows the injection of carbon dioxide⁶³.

The criteria for the grant of a storage permit are rigorous and involve substantial site characterisation in order to assess its suitability for permanent storage. Applicants must also satisfy technical and financial requirements. As well as delineating the storage complex, storage permits will contain a number of important provisions including the requirements for operating the storage facility, the total quantity of carbon dioxide to be stored, the requirements with regard to the composition of the carbon dioxide stream and an approved monitoring plan⁶⁴.

Permits will be issued by the competent authority in each Member State. However, the Commission proposes to review and comment on each individual storage permit application before it is awarded and Member States will be obliged to take the Commission’s comments into consideration⁶⁵.

The CCS Directive includes provisions relating to liability for damage resulting from the leakage of carbon dioxide from a storage site, both in terms of damage to the local environment and the climate. With regard to the local environment, the CCS Directive applies the Environmental Liability Directive (2004/35/EC) to the storage of carbon dioxide to ensure the prevention and remedy of any damage by an operator of a storage facility. Liability for climate damage resulting from leakage will be covered by the inclusion of CCS in the revised EU ETS Directive so that EU ETS allowances will need to be surrendered for leaked emissions.

The CCS Directive requires the storage operator to take corrective measures to remedy any leakage, and the storage operator remains responsible for the storage site for as long as it represents a risk (even after closure), until the site is handed over to the competent authority of the relevant Member State⁶⁶. The relevant Member State is required to assume responsibility for storage sites in its territory from the point of handover⁶⁷. Once a handover has occurred, subject to an important caveat, there should be no further liability for the operator.

The CCS Directive contains a provision stating that where there is fault on the part of the operator, including deficiencies in data, concealment of relevant information, negligence, wilful deceit or a failure to exercise due diligence, the competent authority may recover the costs incurred from the operator, even after the transfer of responsibility has taken place. This is a broad derogation from the principle of liability handover. How this is translated into national legislation will be of great interest to operators of storage facilities⁶⁸.

As part of the permitting regime, Member States may require operators to lodge financial security for their prospective liabilities before the injection of carbon dioxide into a storage facility commences. The scope of these liabilities and the form that the security will take is a matter for individual Member States to decide and will no doubt come under scrutiny when the CCS Directive is implemented at national level. In addition, Member States will be entitled to require a contribution from the operator to cover future liabilities as a condition of the handover of responsibility. Member States are permitted to set the level of this contribution subject to a minimum of not less than the cost of monitoring the site for 30 years post-closure⁶⁹.

Whilst stopping short of compulsory CCS for new power plants, there are requirements on the operators of all new combustion plants in the EU with a capacity in excess of 300MW which are built without CCS capabilities to have assessed whether suitable storage sites are available, whether transport facilities are technically and economically feasible and whether it is technically and economically feasible to retrofit the plant for carbon dioxide capture. The relevant competent

authority in the Member State should also ensure that the operator has secured suitable space on the site for the installation of equipment necessary to capture and compress carbon dioxide⁷⁰.

By amending directives relating to the waste and ground water to permit the injection of carbon dioxide into storage sites, the Climate Change Package removes a significant part of the current prohibitions on CCS under EU legislation.

In addition to the financing support mechanisms in the CCS Directive, financial support for carbon capture and storage is also forthcoming under the European recovery plan. On 20 March 2009, EU leaders agreed proposals for 5 billion of investment in energy and broadband infrastructure projects as part of the EU recovery plan. The 5 billion comes entirely from unspent money in the EU budget and a total of 1,050 million has been proposed for investment in five CCS demonstration projects. Under the plan Germany, the UK, Poland, the Netherlands and Spain will all receive 180 million each, Italy will receive 100 million and France will receive 50 million. 13 projects are shortlisted as funding candidates, among them Hatfield, Kingsnorth, Longannet and Tilbury in the UK, Eemshaven and Rotterdam in the Netherlands and Hürth and Jänschwalde in Germany.

Member States have to transpose the CCS Directive into national law by 25 June 2011.

The Biofuel Directive

The measures introduced by the Biofuel Directive are expected to give a significant boost to the European biofuels market.

The Biofuel Directive amends two previous European directives relating to the quality of petrol and diesel (Directive 98/70/EC of the European Parliament and Council relating to the quality of petrol and diesel fuels as amended by Directive 2003/17/EC). Broadly, the changes aim to introduce a mechanism for the reporting of and reduction in the life cycle of greenhouse gas emissions from fuel; enable the more widespread use of ethanol in petrol; and tighten environmental quality standards for specified fuel parameters.

The Biofuel Directive obliges fossil fuel suppliers to reduce greenhouse gas emissions from their fuels throughout their lifecycle by 6%, a reduction from the Commission's initial proposal for a binding 10% reduction. However, the Commission will review the target in 2012 in the light of technological advances (such as the use of electricity in transport) reserving the option to increase the reduction target by a further 2%⁷¹. Subject to that review, a further 2% reduction is expected to be achieved through the use of Certified Emissions Reductions obtained from projects related to flaring reductions which are not linked to EU oil consumption.

Perhaps the most significant change brought about by the Biofuel Directive is the increase in the permissible content of biological components of petrol to up to 10% by the phasing in of 10% Ethanol (E10) petrol. Petrol

meeting current requirements (containing up to 5% by volume of ethanol) will continue to be marketed until 2013, with the possibility of an extension. This transitional period has been introduced to mitigate the potential damage that would be caused to vehicles which are not calibrated or covered by a warranty allowing the use of petrol with an ethanol content of over 5% by volume⁷².

The Biofuel Directive also provides for changes to the current diesel specifications, allowing a content of fatty acid methyl ester (FAME) of up to 7% by volume, with no limit on other advanced biodiesel blends in the conventional diesel specification. Although allowances are made for Member States that want to make biodiesel blends with a FAME content of 10% by volume available, as a result of the new specification, diesel constituting up to 7% by volume of FAME (B7) is likely to be the grade of diesel predominately available on the European market⁷³.

European legislators intend the Biofuel Directive to incorporate sustainability criteria for biofuels used to meet greenhouse gas reduction requirements. Despite criteria being set out in the Renewable Energy Directive, these criteria had not been agreed by the time that the package was adopted. The European Commission has been tasked with developing a methodology to assess the environmental impact of biofuels across their lifecycle by December 2010⁷⁴.

Member States have until 31 December 2010 to transpose the Biofuel Directive into national law. Once implemented, it is likely to have a significant impact on fuel suppliers throughout the distribution chain as well as fuel producers, who more so than other affected parties, will have to adapt to meet the new quality criteria.

The Emission Standard Regulation

Despite improvements in fuel efficiency, CO₂ emissions from road transport across the EU increased by 26% between 1990 and 2004, and now account for almost a third of the EU's total emissions. When it became apparent that voluntary car industry reduction targets would not be met, the European Commission proposed new legislation to impose enhanced emissions performance requirements. The Emission Standard Regulation sets the first legally-binding standards for CO₂ emissions from passenger cars, requiring reductions from current levels to an EU average for new cars of 130g of CO₂ per kilometre travelled through the adoption of improvements in motor technology. A further 10g per kilometre reduction in emissions will be sought through additional measures, including the increased use of sustainable biofuels and more efficient vehicle features such as better air-conditioning systems or tyres.

The Emission Standard Regulation is much less demanding than the European Commission's original proposal, which had sought to impose significant financial penalties for missing targets that would have applied in full from 2012. The car industry argued strongly that lead-in times for new car development would have made complying with the proposed targets within this timeframe impossible.

The obligations will now be phased in between 2012 and 2015. From 2012, on average 65% of a manufacturer's newly registered cars will need to comply, with the manufacturer's target. This will grow to 75% in 2013, 80% in 2014 and 100% from 2015 onwards⁷⁵. Additional credit will be given for very low emission vehicles, and in certain circumstances for biofuel-capable cars, until 2016. The target for each manufacturer will be set by reference to a limit value curve, with manufacturers of heavier cars being allowed higher emissions than those of smaller cars, but also being required to make steeper cuts from current fleet average emission levels⁷⁶.

Manufacturers (including companies within the same manufacturing group) may agree to pool together to meet the emissions targets. In that case, a nominated pool manager is responsible for paying any penalties, and evidence must be provided that it is sufficiently financially robust to do so. In order to discourage cartel behaviour amongst pool members that are not part of the same group of companies, pools must allow open, transparent and non-discriminatory participation on commercially reasonable terms, and the usual anti-competition rules apply. Pool members are not allowed to share information (eg, on pricing or research developments) other than that which directly relates to compliance with their targets. This does not preclude collaboration agreements which are unconnected with the pooling agreement and do not otherwise violate applicable laws or regulations⁷⁷.

Small scale manufacturers (registering fewer than 10,000 cars per year) and niche manufacturers (registering fewer than 300,000 cars per year) may benefit from lower targets. Small scale manufacturers may put forward a reduction target consistent with their reduction potential in light of economic, technological and market considerations, but such reduced targets are only available for a maximum of five years, whereas niche manufacturers, instead of having a target set by reference to the limit curve, are able to apply for a lower target of a reduction of 25% from 2007 emission performance levels. These lower targets must still be achieved by 2012 and the same financial penalties apply as for larger manufacturers⁷⁸.

Manufacturers may seek to gain credit of up to 7g of CO₂ per kilometre travelled for eco-innovations shown to improve CO₂ emissions performance, provided the improvements go beyond what is otherwise required by the regulation. However, over time, eco-innovations (and in particular reductions in car weight) will be subsumed into required standards and no extra credit will be given⁷⁹.

The penalty system has also been amended from the original proposal, so that manufacturers who miss the target by a small margin are penalised less severely. The fines will now be 5 per gram per new car registered for the first gram per kilometre over target, 15 for the second gram per kilometre over target, 25 for the third gram per kilometre and 95 for each gram above three grams until 2019. After 2019 the full penalty of 95 for each gram per kilometre above the target will apply⁸⁰.

From 2011 onwards manufacturers will be notified by the Commission of any shortfall in meeting their targets for the previous year. Inaccuracies can be challenged and the notice will be confirmed by 31 October of the relevant year. Details of each manufacturer's performance will be published⁸¹.

A longer-term target of 95 grams of CO₂ per kilometre travelled by 2020 is also specified in the regulation. Mechanisms for meeting this goal and penalties for missing it will be set following a review of the regulation which will be completed by 2013. That review will encompass a review of all targets applying from 2012 and the smallscale manufacturer and niche market derogations. It will also include an overall assessment of the impact of the regulation on the car industry and dependent industries such as parts providers⁸².

The Emission Standard Regulation has already entered into force and is directly applicable in all EU Member States, although its measures will be introduced gradually between 2010 and 2016.

The way ahead for Europe's climate change regime

Taken as a whole, the Climate Change Package is the EU's first attempt to create a comprehensive European legal regime covering the carbon and renewable energy sectors, helping to inform investment decisions in these sectors, by securing a future for carbon trading and laying the foundations for future investment in renewable technologies, biofuels and the development of carbon capture and storage.

At policy level, the Climate Change Package aims to achieve a reduction of at least 20% in the levels of greenhouse gas emissions by 2020 – rising to 30% if an international agreement is reached committing other developed countries to comparable emission reductions and economically more advanced developing countries to contributing adequately according to their responsibilities and respective capabilities; and a 20% share of EU energy consumption to be generated from renewable sources by 2020.

As the Climate Change Package will not be fully transposed into national law until 2012, it will be some time before its real impact can be assessed. In addition, the European Parliament and the Council have made it clear throughout the legislative process that the Climate Change Package is not the final word in the EU's climate change initiative, emphasising that the EU now has to set its sight beyond 2020 to make even greater cuts in greenhouse gas emissions to meet the target of halving global emissions by 2050. This is likely to include stricter future emissions limits affecting more sectors, but will also involve stimulating technological developments to ensure that industry players, particularly those in energy intensive industries, implement new technologies.

footnotes

1. Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty (OJ L 1 of 4.1.2003, p.1), as amended by Council Regulation (EC) No 411/2004 (OJ L 68 of 6.3.2004, p.1).
2. DG Competition Report on Energy Sector Inquiry, Brussels, 10 January 2007, SEC (2006)1724 (the "Final Report").
3. One might add that this does not only reduce the incentive for wholesale market trades for new entrants, but also for existing, integrated energy undertakings who will not see the need to engage in such trade outside its own group undertakings.
4. The position of the Commission on long-term contracts in the energy sector is somewhat ambiguous: The Gas Supply Directive (see below) provides an annex with a non-exhaustive list of "instruments to enhance the security of gas supply" and explicitly lists long-term contracts as such an instrument and Article 32(1) of Directive 2003/55/EC exempts long-term contracts for gas transmission concluded pursuant to Article 3(1) of Directive 91/296/EEC. Yet, the Final Report suggests that long-term contracts are problematic from a competition point of view as they necessarily commit pipeline capacity over a significant period of time. For the purposes of the TEP, the Commission has decided that further legislative measures concerning long-term contracts in gas do not appear to be proportionate.
5. Final Report, p.7.
6. The unbundling provisions are contained in Articles 9-11 and 13-14 New Electricity Directive and Articles 9-11 and 14 New Gas Directive.
7. Articles 9 in the New Electricity Directive and New Gas Directive, respectively.
8. T. Jamasb, M Politt, Energy Policy 36 (2008) 4584-4589, page 4585.
9. Commission Staff Working Document, Impact Assessment Summary Accompanying the legislative package on the internal market for electricity and gas, SEC(2007) 1180/2.
10. All figures in this paragraph are quoted as per Annex III of the Impact Assessment.
11. Impact Assessment, page 33.
12. Ibid.
13. Directives 2003/54/EC and 2003/55/EC, respectively.
14. Article 35 New Electricity Directive, Article 39 New Gas Directive.
15. Article 37 New Electricity Directive, Article 41 New Gas Directive.
16. Article 6 (a) New Electricity Directive, Article 40(a) New Gas Directive.
17. On the structure of ACER, see Article 3 of the ACER Regulation.
18. Article 21 ACER Regulation.
19. Articles 5 and 6 ACER Regulation.
20. Article 7 ACER Regulation.
21. Article 9(1) ACER Regulation.
22. Article 6(6)ff ACER Regulation.
23. See, for instance, Jamasb, Tooraj and Pollitt, Michael, *ibid.*
24. Impact Assessment page 54.
25. Articles 5 of the New Electricity and New Gas Regulations, respectively.
26. Articles 8 of the New Electricity and New Gas Regulations, respectively.
27. Article 15 New Gas Directive.
28. Articles 33 and 41 (m) New Gas Directive.
29. Article 36 New Gas Directive and Article 17 New Electricity Regulation.
30. Article 6 New Gas Directive.
31. Article 3(4) New Gas Directive, Article 3(7) New Electricity Directive.
32. Art 1 (12) of the New EU ETS Directive.
33. Art 1(12 (8)) of the New EU ETS Directive.
34. Art 1(9) of the New EU ETS Directive.
35. Art 1 (10) of the New EU ETS Directive.
36. Art 1 (11) of the New EU ETS Directive.

footnotes (continued)

37. Art 1 (28) of the New EU ETS Directive.
38. Article 1 (11) of the New EU ETS Directive.
39. Article 1 (13) of the New EU ETS Directive.
40. Ibid.
41. Ibid.
42. See Annex II of the GHG Reduction Decision.
43. Article 8 of the GHG Reduction Decision.
44. Article 3 (4) of the GHG Reduction Decision.
45. Article 5 of the GHG Reduction Decision.
46. Article 6 of the GHG Reduction Decision.
47. Article 7 of the GHG Reduction Decision.
48. See Annex I of the Renewable Energy Directive.
49. Article 4 of the Renewable Energy Directive.
50. Article 22 of the Renewable Energy Directive.
51. Article 6 of the Renewable Energy Directive.
52. Article 8 of the Renewable Energy Directive.
53. Article 6 of the Renewable Energy Directive.
54. Article 15 of the Renewable Energy Directive.
55. Article 17 of the Renewable Energy Directive. For provisions as to the enforcement of the sustainability criteria, see Article 18 of the Renewable Energy Directive.
56. Article 16 of the Renewable Energy Directive.
57. Ibid.
58. Articles 5-10 of the CCS Directive.
59. Articles 12-20 of the CCS Directive.
60. Article 33 of the CCS Directive, amending Directive 2001/80/EC.
61. Article 1(12) of the New EU ETS Directive.
62. Article 5 of the CCS Directive.
63. Article 6 of the CCS Directive.
64. Article 8 of the CCS Directive.
65. Article 8(2) of the CCS Directive.
66. Article 16 of the CCS Directive.
67. Article 17 of the CCS Directive.
68. Article 18(7) of the CCS Directive.
69. Article 19 of the CCS Directive.
70. Article 33 of the CCS Directive.
71. Article 1(5) of the Biofuel Directive.
72. Article 1(3) of the Biofuel Directive.
73. Article 1(4) of the Biofuel Directive.
74. Article 1(6) of the Biofuel Directive.
75. Article 4 of the Emission Standard Regulation.
76. Article 5 of the Emission Standard Regulation.
77. Article 17 of the Emission Standard Regulation.
78. Article 11 of the Emission Standard Regulation.
79. Article 12 of the Emission Standard Regulation.
80. Article 9 of the Emission Standard Regulation.
81. Article 10 of the Emission Standard Regulation.
82. Article 13(5) of the Emission Standard Regulation.

For further information on any matters in this publication, please contact:

Austria

Christian Schmelz
+43 1 5343 7127
c.schmelz@schoenherr.at

Bernd Rajal
+43 1 5343 7203
b.rajal@schoenherr.at

Belgium

Wouter Geldhof
+32 2 533 5259
wouter.geldhof@stibbe.com

Bulgaria

Stefana Tsekova
+359 2 933 1073
s.tsekova@schoenherr.bg

Elena Rangelova
+359 2 933 1004
e.rangelova@schoenherr.bg

Czech Republic

Martin Nedelka
+420 225 996 500
m.nedelka@schoenherr.cz

Kateřina Jandová
+420 225 996 500
k.jandova@schoenherr.cz

Denmark

Anders Stubbe Arndal
+45 38 77 43 05
asa@kromannreumert.com

Estonia

Jaanus Ikla
+372 640 7170
jaanus.ikla@rln.ee

Finland

Jyrki Prusila
+358 20 506 6234
jyrki.prusila@roschier.com

Leena Lindell
+358 20 506 6619
leena.lindell@roschier.com

France

Stéphane Brabant
+33 1 5357 7070
stephane.brabant@herbertsmith.com

Mehdi Haroun
+33 1 5357 7070
mehdi.haroun@herbertsmith.com

Germany

Petra Linsmeier
+49 89 21 667 220
petra.linsmeier@gleisslutz.com

Christian Hamann
+49 30 800 979 113
christian.hamann@gleisslutz.com

Andreas Neun
+49 30 800 979 217
andreas.neun@gleisslutz.com

Greece

Marina Kolia
+30 210 696 7000
m.kolia@zeya.com

Hungary

Kinga Hetényi
+36 1 345 8746
k.hetenyi@schoenherr.hu

András Lovas
+36 1 345 4552
a.lovas@schoenherr.hu

Ireland

Alex McLean
+353 1 618 0546
alex.mclean@arthurcox.com

Brendan Slattery
+353 1 618 0422
brendan.slattery@arthurcox.com

Italy

Monica Colombera
+39 02 89 63 071
mcolombera@legance.it

Federico Greco
+39 02 89 63 071
fgreco@legance.it

Latvia

Girts Lejins
+371 6724 0689
girts.lejins@rln.lv

Martins Aljens
+371 6724 0689
martins.aljens@rln.lv

Lithuania

Juozas Rimas
+370 5 250 0800
juozas.rimas@rln.lt

Ruslanas Černiauskas
+370 5 250 0800
ruslanas.cerniauskas@rln.lt

Luxembourg

Christian Point
+352 40 78 78 206
christian.point@arendt.com

Marianne Rau
+352 40 78 78 240
marianne.rau@arendt.com

Gilles Dauphin
+352 40 78 78 206
gilles.dauphin@arendt.com

Malta

Roderick Zammit Pace
+356 21 222 607
roderick.zammitpace@bar.com.mt

The Netherlands

Martin In de Braekt
+31 20 5460 242
martin.indebraekt@stibbe.com

Kirsten Berger
+31 20 5460 479
kirsten.berger@stibbe.com

Norway

Henrik Bjørnebye
+47 9 829 4553
henrik.bjornebye@adeb.no

Torkjel K. Grøndalen
+47 9 829 4599
torkjel.grondalen@adeb.no

Poland

Torsten Bogen
+48 22 222 4200
t.bogen@schoenherr.pl

Maciej Knowski
+48 22 222 4200
m.knowski@schoenherr.pl

Portugal

José Luís Esquivel
+351 21 384 5310
geral@esquiveladvogados.com

Bernardo Cunha Ferreira
+351 21 384 5310
geral@esquiveladvogados.com

Romania

Markus Piuk
+40 21 319 67 90
m.piuk@schoenherr.at

Russia

Danila Logofet
+44 20 7374 8000
danila.logofet@herbertsmith.com

Evgeny Yuriev
+7 495 363 6500
evgeny.yuriev@herbertsmith.com

Slovakia

Martin Nedelka
+421 25262 2950
m.nedelka@schoenherr.sk

Slovenia

Tomaž Petrovič
+38 6 1 2000 980
t.petrovic@schoenherr.si

Spain

Miguel Riaño
+34 91 423 4000
miguel.riano@herbertsmith.com

Marta Sanchez-Villalta
+34 91 423 4000
marta.sanchez-villalta@herbertsmith.com

Sweden

Fredrik Wilkens
+46 8 614 31 54
fredrik.wilkens@vinge.se

Christian Johansson
+46 8 614 31 05
christian.johansson@vinge.se

Switzerland

Mariella Orelli
+41 43 222 1000
mariella.orelli@homburger.ch

United Kingdom and European Union

Mark Newbery
+44 20 7374 8000
mark.newbery@herbertsmith.com

Silke Goldberg
+44 20 7374 8000
silke.goldberg@herbertsmith.com

Lynda Haigh
+44 20 7374 8000
lynda.haigh@herbertsmith.com