

CLIMATE CHANGE LEGISLATION IN

European Union

AN EXCERPT FROM

The 2015 Global Climate Legislation Study

A Review of Climate Change Legislation in 99 Countries



**Michal Nachmany, Sam Fankhauser, Jana Davidová, Nick Kingsmill,
Tucker Landesman, Hitomi Roppongi, Philip Schleifer, Joana Setzer,
Amelia Sharman, C. Stolle Singleton, Jayaraj Sundaresan and
Terry Townshend**

www.lse.ac.uk/GranthamInstitute/legislation/



**Grantham Research Institute on
Climate Change and
the Environment**



G L O B E
The Global Legislators Organisation



Inter-Parliamentary Union
For democracy. For everyone.

European Union

Legislative Process

The legislative process at the European Union (EU) level involves the European Commission (independent from national governments), the European Parliament (elected by EU citizens), and the Council of the European Union, which represents Member States. Most often, the Commission proposes new legislation, but it is the Council and Parliament together that pass the laws.

The main forms of EU legislation are directives, regulations and decisions. Directives and regulations can be adopted by the Council in conjunction with the European Parliament or by the Commission alone. A regulation is a general measure that is binding in all its parts, directly applicable in the Member States and addressed to everyone. A directive, on the other hand, is addressed to the member states. It is binding as to the result to be achieved, but leaves member states to choose the form and method they adopt to achieve it. The Commission is required to verify that member states transpose correctly and in due time the directives that have been adopted and can sanction them if they fail to do so. Decisions are EU laws relating to specific cases. They can be adopted by the Council (sometimes jointly with the European Parliament) or by the Commission.

The Commission can also publish Action Plans, White Papers, Green Papers, Commission regulations and Communications. An Action Plan serves to detail actions needed to reach the goals set in individual directives. A White Paper sets out the Commission's policy programme in a specific area. Before a White Paper is written, a Green Paper is published, which is a consultative document including suggestions and options for new policy. Each single proposal for legislation announced in a White Paper or deriving from a policy initiative announced in it is subject to one or more rounds of open consultation and an impact assessment. White Papers, Green Papers and Communications can serve to identify future legislative proposals. Commission regulations primarily serve as administrative acts on the functioning of the EU Institutions. The Treaty of Lisbon (2009) created a new category of legislation, Delegated Acts, by which, under strict conditions, the legislator can delegate to the Commission the power to adopt acts amending non-essential elements of a legislative act, in particular to specify certain technical details.

Approach to Climate Change

EU legislation on climate change has been characterised by a strategy of co-operation with the international community, compliance with the Kyoto Protocol and a will to maintain leadership through ambitious targets and emission reduction mechanisms.

The European Council endorsed the objective of reducing EU emissions of GHGs to 80–95% below 1990 levels by 2050. The Roadmap for transforming the European Union into a competitive low carbon economy by 2050 (the Roadmap) was adopted by the European Commission in 2011. It describes a cost-effective pathway to reach this objective and gives direction to sectoral policies for all economic sectors, national and regional low-carbon strategies and long-term investments. The EU also developed a 2050 Energy Roadmap and a White Paper on Transport, detailing how these emission reductions are to be achieved in the energy and transport sectors respectively.

The Roadmap recommends that the EU should achieve its target largely through domestic measures since, by mid-century, international credits to offset emissions will be less widely available and any credits used would increase the overall emissions reduction beyond 80%.

The economic modelling underlying the Roadmap showed that to achieve an 80% European “domestic” reduction by 2050, cuts of the order of 40% and 60% below 1990 levels should be achieved by 2030 and 2040, respectively. All sectors will need to contribute. It also showed that the most cost-efficient pathway to the 2050 target would require a 25% emissions cut by 2020.

The Roadmap estimated that, over the next 40 years, additional annual investment equivalent to 1.5% of EU GDP – or EUR270bn (USD338.8bn) – on top of overall current investment of 19% of GDP would be required. This proposed increase would return Europe to the investment levels seen before the economic crisis. Much or all of this extra investment would be recovered through lower import bills for oil and gas. These savings were estimated at EUR175bn–EUR320bn (USD220bn–USD402bn) a year. This investment in clean technologies, infrastructure such as “smart” electricity grids and environmental protection would have multiple benefits in terms of reduced energy dependency and created domestic value-added, the development of new sources of growth and employment creation, as well as lower air quality-related health costs which could reach up to EUR88bn (USD110bn) a year by 2050.

In 2011 the Commission published its Proposals for the EU 2014–2020 Multi-Annual Financial Framework, which was adopted by the European Council in 2013. The Financial Framework establishes that 20% of the 2014-2020 EU budget is to be dedicated to climate mitigation and adaptation measures.

Energy supply

The EU’s energy policy aims primarily at ensuring the security of energy supplies, competitive energy markets with affordable prices, and sustainable energy consumption by reducing GHG emissions, pollution, and fossil fuel dependence. To pursue these goals within a coherent long-term strategy, the EU has formulated targets for 2020, 2030, and 2050.

The 2020 Energy Strategy (2011) defines energy priorities between 2010 and 2020. It aims to reduce GHG emissions by at least 20%; increase the share of renewable energy in energy consumption to minimum 20%; improve energy efficiency by at least 20%. The 2030 framework for climate change and energy policies (October 2014) lays down the objectives to be met by 2030: a binding EU target of at least a 40% reduction in GHG emissions (base year 1990); a binding target of at least 27% of renewable energy in the EU; an energy efficiency increase of at least 27%, to be reviewed by 2020 potentially raising the target to 30%; the completion of the internal energy market by reaching an electricity interconnection target of 15% between EU countries by 2030 (intermediary target of 10% in 2020), and pushing forward important infrastructure projects. The 2030 framework also launched preparation of the Energy Union aiming at affordable, secure and sustainable energy, by “pooling resources, connecting networks and uniting member states’ power when negotiating with non-EU countries”. Specific legislative proposals are expected in 2015.

A European Energy Security Strategy, adopted in May 2014 partly in response to the political crisis in Ukraine, presents short and long-term measures to guarantee security of supply. It mandates short-term energy security stress tests for individual member states, calls for an increase in emergency gas stocks and developing emergency infrastructure, completion of the internal energy market, reduction in energy demand (especially in buildings and industry) and switching to alternative fuels.

The development of the Internal Energy Market (electricity and gas) has been supported by the First, Second and Third Energy Packages. They enable new entrants in Member State gas and electricity markets; enable consumers to choose their own gas and electricity suppliers and further liberalise electricity and gas markets; regulate transmission network ownership by ensuring a clear separation of supply and production activities from network operation; ensure more effective regulatory oversight by truly independent national energy regulators; reinforce consumer protection; regulate third party access to gas storage and LNG facilities; lay down rules concerning transparency and reporting about gas reserves; and promote regional solidarity by co-ordinating national emergency measures and developing gas interconnections.

The development of renewable energy sources and EU domestic production of energy is addressed through individual member states’ mandatory targets set by the Renewable Energy Directive (2009), which reflects Member States’ different starting points and potential for increasing renewables production (further regulated by the Effort-Sharing Decision, 2009). These range from 10% in Malta to 49% in Sweden. The EU has also put in place European certification schemes, subsidies and other incentive mechanisms to support the use of renewable energy.

Energy demand

The promotion of energy efficiency and energy demand management is ensured in particular through the Energy Efficiency Directive (2012), which establishes a common framework of measures for the support of energy efficiency. Other pieces of legislation also promote more energy efficient products and uses, including the Directive on the energy performance of buildings (recast 2010), Directive on eco-design requirements for energy-using products (recast 2009) and Directive on labelling and standard product information on energy consumption by energy-related products (2010).

Carbon pricing

A key component of EU climate legislation is the “Emission Trading System” (EU ETS), which entered into force in 2005 in order to help reach the targets agreed at Kyoto. This mechanism currently covers around 45% of total EU GHG emissions and has been amended several times to extend it to new sectors (for example, aviation) or to new GHGs (besides CO₂, the EU ETS also covers nitrous oxides and perfluorocarbons). In parallel, the EU has set up a mechanism for monitoring GHG emissions to enable a more accurate and regular evaluation of the progress of emissions reduction.

The EU ETS is constantly being improved and initiatives are under way to adjust the availability of certificates over the emission trading phases to address overallocation (i.e. backloading) and ensure greater environmental efficiency of the system. Thus, for the third phase 2013-2020, a single EU-wide cap on emissions was introduced instead of individual national caps, to guarantee the overall environmental outcome of the system. Auctioning of allowances, rather than free allocation, was adopted as the default method – with at least 40% of allowances auctioned in 2013. Allocation rules across Member States were harmonised to limit competitiveness distortions and strengthen the system’s incentives for clean technologies. Finally, 300m allowances were set aside to fund the deployment of innovative renewable energy technologies as well as carbon capture and storage through the ‘NER 300’ programme.

In the next phase of the EU ETS, starting in 2021, the system will undergo a further structural reform. The 2030 framework for climate change and energy policies establishes that the emission cap will be lowered by 2.2% per year from 2021, compared with 1.74% currently. It also proposes the introduction of a market stability reserve (MSR) to address the surplus of emission allowances that has built up in recent years and to improve the system’s resilience. A binding legislative proposal on the MSR, put forward in January 2014, is yet to be adopted, as diverging views exist on the start date of the MSR (2021 or earlier) and on the destination of the 900m temporarily backloaded allowances, which could be either released into the market or placed directly into the planned MSR.

REDD+/LULUCF

Following the decision adopted at the UNFCCC 17th Conference of the Parties (COP 17) on revised accounting rules from soils and forests, the EU adopted a Decision on accounting rules and action plans on GHG emissions and removals resulting from activities related to land use, land use change and forestry (LULUCF). This was a first step towards incorporating removals and emissions from forests and agriculture, the last major sectors without common EU-wide rules, into EU climate policy. Member states are obliged to report on how they increase removals of carbon as well as decrease GHG emissions in forests and soils. The legislation goes further than the UNFCCC decision as it phases in mandatory accounting for the management of grassland and cropland at the national level. It is expected that these measures will contribute to enhancing the overall environmental integrity of GHG accounting. In line with the international context, the accounting for draining and rewetting of wetlands remains on a voluntary basis.

The Commission's proposal for the Reform of the EU Common Agricultural Policy (CAP) after 2013 was adopted in 2013. The reformed CAP integrates climate change mitigation and adaptation measures by introducing two rural development policy priorities for restoring, preserving and enhancing ecosystems, for resource efficiency and for the fight against climate change. Some 30% of the direct payments to farmers are conditional upon the implementation of greening measures that have co-benefits for climate mitigation and adaptation. The payments must comply with EU policies supporting the shift towards a low-carbon economy and promoting climate change adaptation, risk prevention and management, such as the Energy Efficiency Directive, the Water Framework Directive and the Renewable Energy Directive.

The EU's approach to REDD+ builds mainly on the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan (2003), which aims to reduce deforestation through preventing illegal timber logging. "The EU supports a policy target of halting global forest cover loss by 2030 at the latest and a reduction of gross tropical deforestation by at least 50% by 2020" (EU Commission). The Commission has also committed around EUR107m (USD134m) in 2007-2012 to support REDD+ pilot projects in Africa, Asia and Latin America. Almost EUR64m (USD80m) are to be channelled through FLEGT. REDD+ activities are co-ordinated by the EU REDD Facility (managed by the European Forest Institute), through bilateral and multilateral initiatives including Forest Carbon Partnership Facility (FCPF) and UN-REDD, and through a number of earth observation projects, such as COCOS (contributes to creation of a global carbon observation system) or DevCoCast (involves developing countries in global environmental data exchange).

Transportation

The EU has set emission performance standards for new passenger cars and new light commercial vehicles, aviation within the EU has been included in the EU

ETS, targets for reducing the GHG intensity of fuels have been set, and mechanisms to support research and development of clean vehicles are in place.

In 2009 the EU introduced mandatory emission reduction targets for new cars, amended in April 2014 in order to implement the 2020 climate and energy package targets. The fleet average emission level to be achieved by all new cars is 130 gCO₂/km by 2015 and 95gCO₂/km by 2021. Emissions from vans are to be reduced to 147 gCO₂/km in 2020 from the 180.2g in 2012 (the latest year for which figures are available), with a transitory 2017 target of 175 gCO₂/km. In addition, the European Commission proposed in May 2014 a strategy to curb emissions from heavy-duty vehicles (HDVs – trucks, buses, coaches), given that current technologies should be able to achieve cost-effective reductions in CO₂ emissions from new HDVs of at least 30%.

The Fuel Quality Directive, introduced in 1998 and revised in 2009, includes requirements to reduce the GHG intensity of energy supplied for road transport (Low Carbon Fuel Standard) and establishes sustainability criteria for biofuels.

The Commission's legislative proposal to address the indirect land-use change impacts (ILUC) of biofuels aims to limit global land conversion for biofuel production, and raise the climate benefits of biofuels used in the EU. The use of food-based biofuels to meet the 10% target of renewable energy in transportation in the Renewable Energy Directive is intended to be limited to 5-7%. This is to stimulate the development of alternative, second generation biofuels from non-food feedstock, such as waste or straw, which emit substantially fewer GHGs than fossil fuels and do not directly interfere with global food production. The estimated global land conversion impacts will be considered when assessing the GHG performance of biofuels.

Adaptation

Co-ordination of adaptation policy at the EU level was initiated by a 2009 White Paper. The proposed measures have largely been implemented, including for example the launch in 2012 of the web-based European Climate Adaptation Platform (Climate-ADAPT13).

To further co-ordinate national adaptation policies and create a systematic exchange of best practices, the European Commission proposed in 2013 the EU Strategy on adaptation to climate change, and considers proposing a legally-binding instrument in 2017 if individual Member States' actions are deemed insufficient. The objective of the Strategy is to “enhance the preparedness and capacity to respond to the impacts of climate change at local, regional, national and EU levels, develop a coherent approach and improve coordination”. It proposes eight specific actions to achieve such an objective, including promoting action in Member States, better informed decision-making, climate-proofing action at the EU level, and strengthening the institutional framework for co-ordination, financing, and monitoring.

European Union: Legislative Portfolio

Name of law	2030 framework for climate and energy policies (strategic document)
Date	28 October 2014 (endorsement by the European Council, binding legislation to be drafted)
Summary	<p>To ensure that the EU is on the cost-effective track towards meeting its objective of cutting emissions by at least 80% by 2050, the Commission proposed the '2030 framework for climate change and energy policies'. It was adopted by the European Council in October 2014 as a strategic document, although binding legislation is yet to be drafted. It includes the binding 2030 EU domestic GHG reduction target of at least 40% compared to 1990, as well as a target of at least 27% for final renewable energy, and a at least 27% for energy savings by 2030 (target to be reviewed upwards to 30% in 2020).</p> <p>In addition, the EU ETS is to be reformed and strengthened. To achieve the 2030 binding 40% reduction target, the sectors covered by the EU ETS would have to reduce their emissions by 43% compared to 2005. In parallel, emissions from non-EU ETS sectors would need to be cut by 30% below the 2005 level, through national measures. To address the surplus of emission allowances in the EU ETS and to improve the system's resilience, a market stability reserve is to be established and the annual factor to reduce the cap on the maximum permitted emissions is to be changed from the current 1.74% to 2.2% from 2021. The volume of free allowances is to be reduced progressively; Member States with a GDP per capita below 60% of the EU average may opt to continue to give free allowances to the energy sector up to 2030, but the maximum amount handed out for free after 2020 should be no more than 40% of the allowances allocated to eligible Member States.</p> <p>The 2030 Framework stresses the importance of a fully functioning and connected EU energy market, as foreseen in the European Energy Security Strategy (2014). The Commission is to be supported by Member States to take measures to ensure achievement of a minimum target of 10% of electricity interconnections no later than 2020.</p> <p>The 2030 framework also launches the preparation of the Energy Union aiming at affordable, secure and sustainable energy, by "pooling resources, connecting networks and uniting member states' power when negotiating with non EU countries". Specific legislative proposals are expected in 2015.</p>

Name of law	European Energy Security Strategy
Date	28 May 2014
Summary	<p>The Commission adopted the Energy Security Strategy in response to the political crisis in Ukraine and the overall importance of a stable and abundant supply of energy.</p> <p>The strategy seeks to respond to the high dependence on energy imports (53% total energy consumed imported, including 88% of crude oil, 66% of natural gas, 42% of solid fuels such as coal, 95% of uranium).</p> <p>In the short-term, the strategy proposes launching energy security stress tests to simulate disruptions in the gas supply for the coming winter. Other emergency plans and back-up mechanisms may include:</p> <ul style="list-style-type: none">• Increasing gas stocks• Developing emergency infrastructure such as reverse flows• Reducing short-term energy demand• Switching to alternative fuels• Developing new solidarity mechanisms with international partners

In addition, the strategy addresses medium and long-term security of supply. It proposes actions in five main areas, with the first two particularly relevant to energy efficiency:

- Increasing energy efficiency (especially in the buildings and industry sectors) to reach the 2030 energy and climate goals; demand management through information and transparency (clear billing information, smart energy meters)
- Completing the internal energy market and developing missing infrastructure links to quickly respond to supply disruptions
- Increasing energy production in the EU and diversifying supplier countries and routes
- Speaking with one voice in external energy policy, use the information exchange mechanism with the Commission about planned agreements with third countries which may affect security of supply
- Strengthening emergency and solidarity mechanisms and protecting critical infrastructure

Name of law	Fluorinated greenhouse gases (Regulation No. 517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006)
Date	16 April 2014
Summary	<p>The new F-Gas Regulation aims to cut by 2030 the EU's F-gas emissions by two-thirds compared with 2014 levels. These are certain fluorinated gases (HFCs, PFCs and sulphur hexafluorides), and cuts will come in particular through improving containment and monitoring of these gases, increasing recovery, and restricting their marketing and use.</p> <p>From 2008, anyone producing, importing or exporting more than 100 tonnes of CO₂-e of any of fluorinated GHGs must communicate the imported or exported amount produced, the applications in which they will be used including the expected emissions, and the amounts recycled, reclaimed or destroyed. A system of quotas is to be put in place starting on 1 January 2015, with values recalculated every three years from 2017.</p>

Name of law	Common Agricultural Policy 2014-2020
Date	20 December 2013
Summary	<p>The CAP has been reformed by strengthening its greening aspects. Climate mitigation and adaptation are explicitly among the key objectives of the CAP, which accounts for about 30% of the overall EU budget/ MFF 2014-2020.</p> <p>The greening measures in the CAP 2014-2020 particularly increase the carbon sink by encouraging more grassland, the protection of forest cover and address the challenges of soil quality.</p> <p>It makes direct payments to farmers conditional upon compliance with greening measures, which account for 30% of the overall direct payments (pillar I). These measures include crop diversification, conserving 5% (and later 7%) of areas of ecological interest and maintaining permanent grassland. 30% of the budget within the rural development programmes (pillar II) is to be dedicated to agri-environmental measures, projects related to environmentally friendly investment or innovation measures as well as to support for organic farming. It further improves agri-environmental measures via higher environmental protection targets.</p>

Name of law	Land Use, Land Use Change and Forestry (LULUCF) (Decision No. 529/2013/EU on accounting rules on GHG emissions and removals resulting from activities relating to LULUCF and on information concerning actions relating to those activities)
Date	8 July 2013
Summary	<p>Harmonisation of accounting rules for emissions from land use, land use change and forestry. The objective is to include agriculture and forestry into European climate mitigation efforts.</p> <p>This decision is a direct response to the UNFCCC decision in 2011 to revise the accounting rules for GHG emissions and removals from forests and soils. It meets international standards by maintaining the voluntary nature of accounting for draining and rewetting of wetlands, but goes beyond the UNFCCC decision by making accounting for cropland and grassland management mandatory for member states.</p> <p>The new rules are intended to better recognise the efforts of farmers and forest owners to maintain carbon stored in soils and forests and to facilitate a more climate-friendly architecture (funds are available through the Common Agricultural Policy's Rural Development pillar), protecting water resources and biodiversity.</p> <p>It also contains reporting requirements for Member States on their initiatives to decrease emissions from forestry and agriculture-related activities as well as increase the carbon sink.</p> <p>The directive does not set targets for reducing GHG in agriculture and forestry as the accounting rules set out by this directive first need to prove to be sufficiently robust.</p>

Name of law	Energy Efficiency (Directive 2012/27/EU on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC)
Date	4 December 2012
Summary	<p>The Directive aims to achieve an EU-wide energy savings of 15% by 2020, which translates into no more than 1,474 Mtoe primary energy or no more than 1,078 Mtoe of final energy by 2020. With the accession of Croatia in 2013, the target was revised to 1,483 Mtoe primary energy or no more than 1,086 Mtoe of final energy. Each Member State must set an indicative national energy efficiency target, based on either primary or final energy consumption, primary or final energy savings or energy intensity.</p> <p>Member States have to ensure from 1 January 2014 that 3% of the total floor area of heated and/or cooled buildings owned by their central government is renovated each year. They must establish a long-term strategy to mobilise investment in the renovation of the national stock of residential and commercial buildings, both public and private.</p> <p>Member States must set up an energy efficiency obligation scheme, ensuring that obligated energy distributors and/or retail energy sales companies achieve a cumulative end-use energy savings target by 31 December 2020 at least equivalent 1.5% a year from 2014 to 2020 of the annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent 3-year period prior to 2013. They can use a bundle of flexibility measures as well as equivalent alternative measures to achieve up to 25% of the amount of the energy savings target.</p> <p>Large enterprises are subject to an energy audit within 3 years of the Directive entering into force and at least every 4 years from the date of the previous energy audit.</p> <p>Billing of customers based on actual consumption in order to enable final customers to regulate their own energy consumption at least once a year, and billing information to be made available at least quarterly, on request or where the consumers have opted to receive electronic billing or else twice yearly.</p>

By 31 December 2015, Member States shall carry out and notify to the Commission a comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling.

National Energy Efficiency Action Plans shall list significant measures and actions towards primary energy saving in all sectors of the economy and Member States must report on the expected savings for 2020 and savings achieved by the time of the reporting. By 30 June 2014, the Commission will assess the progress achieved.

Name of law	Emission performance standards for new light commercial vehicles (Regulation (EU) No. 510/2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO₂ emissions from light-duty vehicles)
Date	2011 (last amended 26 February 2014)
Summary	<p>Sets emission performance standards for new light commercial vehicles, including a limit of 175g CO₂/km for average CO₂ emissions from manufacturers' fleet of small vans by 2017. Specific targets for individual vehicles vary according to weight. A 2020 target of 147g CO₂/km has been adopted.</p> <p>In 2014, 70% of each manufacturer's newly registered units must comply on average with the limit value curve set by the legislation, rising to 75% in 2015, 80% in 2016 and 100% from 2017.</p> <p>A "super-credit" scheme will help manufacturers comply: a multiplier figure decreasing from 3.5 in 2014 to 1.7 in 2017 will be applied to every vehicle with specific emissions of CO₂ of less than 50g CO₂/km, up to 25,000 units per manufacturer. To incentivise investment in new technologies, from 2014 producers will have to pay an increasing penalty if their fleet fails to meet their target.</p> <p>Vehicles running on E85 (petrol with 85% bioethanol) will benefit from a 5% lower emission target by 31 December 2015 in recognition of the greater technological and emission reduction capability when at least 30% of the filling stations provide EU-compliant sustainable biofuels. CO₂ savings achieved through the use of innovative technologies shall be taken into consideration up to 7g CO₂/km.</p> <p>By 2014 the Commission shall, if appropriate, launch a proposal to include in the Regulation vehicles in category N2 and M2 with a reference mass not exceeding 2,160 kg and vehicles to which type-approval is extended, with a view to achieving the longer-term target from 2020.</p> <p>By 2014 the Commission shall publish a report on the availability of data on footprint and payload and their use as utility parameters for determining specific emissions targets and, if appropriate, submit a proposal to the European Parliament and to the Council.</p>

Name of law	Energy labelling (Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products)
Date	18 June 2010
Summary	<p>Sets up a framework to harmonise national measures on end-user information. Member States must ensure that information relating to energy consumption is brought to the attention of end-users. The bill also adopts rules for the placing on the market/ putting into service of an "energy-using product (EuP), adopting also rules for importing these goods.</p>

Name of law	2020 Climate and Energy Package (contains Directive 2009/29/EC, Directive 2009/28/EC, Directive 2009/31/EC and Decision No. 406/2009/EC of the Parliament and the Council ; see below)
Date	2009
Summary	<p>In 2007 EU leaders endorsed an integrated approach to climate and energy policy that aims to combat climate change and increase energy security while strengthening its competitiveness. In 2008 the European Commission proposed binding legislation to implement the 20-20-20 targets. This “climate and energy package” became law in 2009. The core of the package comprises four pieces of complementary legislation.</p> <p>The 20-20-20 targets include:</p> <ul style="list-style-type: none"> • Reduction of EU GHG emissions by at least 20% below 1990 levels by 2020 • 20% of EU energy consumption to come from renewable resources by 2020 • 20% reduction in primary energy use compared with projected levels, by improving energy efficiency <p>The EU committed to increase its emissions reduction to 30% by 2020, on condition that other major emitting countries commit to do their fair share under a global climate agreement.</p> <p>Member States will limit GHG emissions between 2013 and 2020 according to a linear trajectory with binding annual targets. This will ensure a gradual move towards the 2020 targets in sectors where changes take time to implement, such as buildings, infrastructure and transportation. To increase the cost-effectiveness of policies and measures, Member States are allowed to deviate from the linear trajectory to a certain degree.</p> <p>The Renewable Energy Directive sets the following targets:</p> <ul style="list-style-type: none"> • At least 10% share of renewables in final energy consumption in the transportation sector by 2020 • The biofuels and bio-liquids should contribute to a reduction of at least 35% of GHG emissions in order to be recognised. From 2017, their share in emissions savings should be increased to 50 % <p>It further commissions an assessment of the inclusion of emissions and removals related to LULUCF – anticipated to follow up on any international agreement on forestry, deforestation and sustainability criteria.</p>

Name of law	Third Energy Package (Directives on electricity 2009/72/EC, repealing Directive 2003/54/EC and Directive on gas 2009/73/EC, repealing Directive 2003/55/EC)
Date	2009
Summary	<p>The development of a resilient and integrated energy market across the EU - the Internal Energy Market – has been supported by the subsequent Energy Packages. The First Energy Package concerned common rules for the internal market in electricity and for the internal market in natural gas. It was updated in 2003 by the Second Energy Package, which enabled new gas and electricity suppliers to enter Member States’ markets and enabled consumers to choose their own gas and electricity suppliers.</p> <p>The Third Energy Package:</p> <ul style="list-style-type: none"> • regulates transmission network ownership by ensuring a clear separation of supply and production activities from network operation through three models of organisation: full ‘ownership unbundling’, independent system operator and independent transmission operator; • ensures more effective regulatory oversight from truly independent national energy regulators, strengthening and harmonising the competences and the independence of national regulators so as to allow effective and non-discriminatory access to the transmission networks;

- reinforces consumer protection and ensures the protection of vulnerable consumers;
 - regulates third party access to gas storage and liquefied natural gas (LNG) facilities, and lays down rules concerning transparency and regular reporting about gas reserves;
 - promotes regional solidarity by requiring Member States to co-operate in the event of severe disruptions of gas supply, by co-ordinating national emergency measures and developing gas interconnections.
-

Name of law	Revision of the EU Emission Trading System (EU ETS) (Directive 2009/29/EC amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community)
Date	2009 (last amended on 30 April 2014)
Summary	<p>A revision and strengthening of the Emissions Trading System (EU ETS).</p> <p>A single EU-wide cap on emission allowances will apply from 2013 and will be cut annually, reducing the number of allowances for businesses to 21% below the 2005 level in 2020. The free allocation of allowances will be progressively replaced by auctioning. From 2013 the power sector will have to buy all emissions permits under an EU-wide auction (with some time-limited exceptions for newer member countries). From 2013 (phase III of EU ETS, 2013–2020), the revised ETS will be extended to new sectors (for example, aviation) or to new GHGs (besides carbon dioxide, the EU ETS also covers nitrous oxides and perfluorocarbons). Smaller emitters (<25,000 tCO₂/year) may opt out of the EU ETS.</p> <p>By end-2009 the Commission determined the sectors or sub-sectors deemed to be exposed to a significant risk of carbon leakage. Production from sectors at significant risk of carbon leakage will receive relatively more free allowances than other sectors. The revised Directive also recognises that the competitive situation, and thus the risk of carbon leakage, may change unless there is an international climate change agreement.</p>

Name of law	Effort Sharing Decision (Decision No. 406/2009/EC 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)
Date	2009
Summary	<p>It aims to reduce GHG emissions from sectors not included in the EU Emission Trading System (EU ETS) such as transportation, buildings, agriculture and waste.</p> <p>Each Member State agreed to a binding national emissions limitation target for 2020 that reflects its relative wealth. The targets range from a reduction of 20% by the richest Member States, to an increase of 20% by the poorest, compared to 2005 levels. These national targets will cut EU emissions from non-ETS sectors by 10% by 2020 compared with 2005 levels. Member States may transfer unused emission allocations to the following year or to other Member States and purchase a proportion of credits from third countries.</p> <p>The ETS and effort-sharing legislation are together meant to achieve the 20% emissions reductions by 2020 from 1990 levels set in the 2020 climate and energy package.</p>

Name of law	Geological storage of carbon dioxide (Directive 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006)
Date	2009
Summary	<p>The Directive establishes a legal framework for the environmentally safe geological storage of CO₂. It covers all CO₂ storage in geological formations in the EU, and lays down requirements covering the entire lifetime of a storage site. It implements a permit regime for exploration and storage, and selection criteria for storage sites.</p> <p>The Directive defines the relationship between carbon, capture and storage (CCS) and the EU ETS in terms of finance and also rules that CO₂ captured and stored will be considered as “not emitted”. There are monitoring and reporting obligations, inspections, measures in case of irregularities and/or leakage and provision of financial security.</p> <p>Site selection is the crucial stage for ensuring the integrity of a project and the Directive lays down extensive requirements. A site can only be selected for use if a prior analysis shows that, under the proposed conditions of use, there is no significant risk of leakage or damage to human health or the environment. The operation of the site must be closely monitored and corrective measures taken in the case that leakage does occur. In addition, the Directive contains provisions on closure and post-closure obligations, and sets out criteria for the transfer of responsibility from the operator to the Member State.</p>

Name of law	Fuel Quality (Directive 2009/30/EC amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce GHG 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)
Date	23 April 2009
Summary	<p>The directive provides the legislative basis for reducing the GHG intensity of fuels used in vehicles for transportation by 10% by 2020. It applies to all fuels used in road transportation, including petrol, diesel and biofuels, and to gasoil that is used in non-road mobile machinery.</p> <p>The 10% target comprises 6% reduction of GHG intensity of fuels by 2020, 2% reduction of GHG intensity depending on the development of new technologies and 2% reduction from purchasing Clean Development Mechanism credits. The Directive requires calculation of fuel GHG intensity on a life-cycle basis, calculated from a 2010 baseline.</p> <p>To limit the undesired impacts of biofuel production, it establishes criteria to enable biofuels to be counted towards GHG emission reduction targets. Biofuel GHG emissions must be >35% lower than the fossil fuel they are replacing, increasing to >50% by 2017 and >60% from 2018. Raw materials for biofuels may not be taken from land with high carbon stocks (e.g. peat lands) or high biodiversity. However, the implementing measures of the Fuel Quality Directive have not been adopted and it has thus only limited impact.</p>

Name of law	Emission performance standards for new passenger cars (Regulation (EC) No. 443/2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles)
Date	2009 (last amended 05/04/2014)
Summary	This legislation sets emission performance standards for new passenger cars. Car manufacturers must ensure by 2015 that average annual CO ₂ emissions do not exceed

130g CO₂/km. A target of 95g/km is specified for the year 2020.

In 2012, 65% of each manufacturer's newly registered cars must comply on average with the limit value curve set by the legislation. This will rise to 75% in 2013, 80% in 2014, and 100% from 2015 onwards.

Commission to report on implementation by 2010 and to publish performance indicators for each manufacturer, highlighting success or failure to comply (by 31 October each year, beginning in 2011). Until 2018 manufacturers have to pay an excess emissions premium for each car registered if average CO₂ emissions of a manufacturer's fleet exceed its limit value in any year from 2012.

Name of law	Clean and energy-efficient road transport vehicles (Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles)
Date	2009
Summary	Member States shall ensure that contracting authorities, contracting entities and operators under a public service contract, take into account the operational lifetime energy and environmental impacts when purchasing road transportation vehicles.

Name of law	Clean Sky (Council Regulation (EC) No. 71/2007 setting up the Clean Sky Joint Undertaking)
Date	2008
Summary	The "Clean Sky" Joint Technology Initiative (JTI) is aiming to unite public and private driving forces (human and financial) in European aviation and to develop the technologies necessary for a clean, innovative and competitive system of air transport, through research. It aims to reduce CO ₂ emissions by 50% and NO _x by 80% by 2020.

Name of law	Eco-design (Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products (recast))
Date	2005 (recast 21 October 2009)
Summary	The directive aims to establish a coherent framework for eco-design requirements applied to energy-using products. Through implementing measures and voluntary agreements, mandatory minimum requirements are set for products taking account of life-cycle costs. The extension expanded the directive's scope to encompass all energy related products. Member States must adopt national legislation to implement the directive, create authorities for market surveillance and adopt penalties for infringements. Member states are prohibited from adopting measures that compromise the placing on the market/ putting into service any product that has complied with EC requirements on eco-design.

Name of law	Energy taxation (Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity)
Date	1 January 2004
Summary	Introduces generalised arrangements for the taxation of energy products and electricity. The Community system of minimum rates (previously confined to mineral oils) is extended to coal, natural gas and electricity. Energy products and electricity are only taxed when used as motor or heating fuel.

The framework authorises Member States to adopt tax refund mechanisms to businesses with significant energy efficiency investment. Non-energy intensive activities can receive up to 50% tax relief, while energy-intensive businesses are eligible for 100% tax relief.

The directive includes provisions on taxation of commercial diesel, to address trade distortion amongst EU member states. Member states are also allowed to apply higher taxes to non-business use of energy products than to business use. International air transportation is exempt.

Name of law	Monitoring greenhouse gas emissions (Decision 280/2004/EC concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol as recast by Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013)
Date	2004 (recast 2013)
Summary	The EU has established a mechanism for monitoring and reporting GHG emissions to evaluate the progress made in reducing emissions. The Member States and the Community must devise, publish and implement national programmes and a Community programme to limit or reduce anthropogenic emissions by sources, and enhance the removal by sinks, of all GHGs not controlled by the Montreal Protocol. The national programmes must include information on: the effect of national policies and measures on emissions and removals, broken down by gas and by sector; national projections for emissions and removal of CO ₂ and other GHGs for 2005, 2010, 2015 and 2020; measures being taken or planned to implement relevant Community policies; and to comply with commitments under the Kyoto Protocol.

Name of law	Cogeneration (Directive 2004/8/EC on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC)
Date	2004
Summary	This Directive facilitates the installation and operation of electrical cogeneration plants. In the short term, the Directive should make it possible to consolidate existing cogeneration installations and promote new plants. In the medium to long term, the Directive should to create the necessary framework for high efficiency cogeneration. Member States must evaluate progress by 2007 at the latest and thereafter every four years.

Name of law	EU Emission Trading Scheme (EU ETS) (Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC)
Date	2003
Summary	This Directive establishes a Community GHG emissions trading scheme from 2005, to enable the Community and the Member States to meet their Kyoto Protocol commitments. Directive 2004/101/EC reinforces the link between the EU's emission allowance trading scheme and the Kyoto Protocol by making the latter's "project-based" mechanisms (Joint Implementation and the Clean Development Mechanism) compatible with the scheme. From 2005, all installations in the energy sector, iron and steel production and processing, the mineral industry, and the wood pulp, paper and board industry, and emitting the specific GHG associated with that activity, must possess a permit issued by the appropriate authorities.

Each Member State must draw up a national plan indicating the allowances it intends to allocate for the relevant period and how it proposes to allocate them to each installation.

The Directive also provides for flights that arrive or depart from a Member State’s territory to be subject to the EU ETS (from 2012), measure that so far applies to intra-EU flights.

Any operator failing to surrender the quantity of allowances commensurate with the emissions from his/her installation during the previous year will have to pay EUR100 (USD 125) per tCO₂e and buy allowances for the excess emissions.

Name of law	Energy performance of buildings (Directive 2002/91/EC on the energy performance of buildings)
Date	2002 (Recast adopted by EU Parliament in 2010)
Summary	<p>Minimum energy performance requirements of new and existing buildings, certification of their energy performance and the regular inspection of boilers and air conditioning systems in buildings in the residential sector and the tertiary sector (including offices and public buildings). In the 2010 recast, the EU executive expects the overhaul to bring its energy consumption down by 5–6%, consequently slashing CO₂ emissions by 5% by 2020.</p> <p>Requires a common methodology for calculating the integrated energy performance of buildings. This includes: minimum standards on the energy performance of new buildings, and existing buildings that are subject to major renovation: systems for the energy certification of new and existing buildings and the prominent display of this certification and other relevant information for public buildings. Certificates must be less than five years old. Regular inspection of boilers and central air conditioning systems in buildings and an assessment of heating installations in which the boilers are more than 15 years old must be conducted.</p> <p>In the recast, by end -2018, public buildings will have nearly zero-energy standards and by 2020, all new buildings are to be nearly zero-energy. Eliminating the current 1,000m² threshold would mean that all existing buildings undergoing major renovations would have to meet minimum efficiency levels.</p> <p>Member States are responsible for drawing up the minimum standards and ensuring that the certification and inspection of buildings is carried out by qualified and independent personnel.</p>

Name of law	Information on the fuel consumption and CO₂ emissions of new cars (Directive 1999/94/EC relating to the availability of consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars; amended by Directive 2003/73/EC and Regulation (EC) No. 1882/2003)
Date	2000
Summary	Dealers of new passenger cars to provide potential buyers with useful information on fuel consumption and CO ₂ emissions, This consumer information system is to be set up using the following four methods: attaching a fuel consumption and CO ₂ emissions label to the vehicle; producing a fuel consumption and CO ₂ emissions guide; displaying posters in car showrooms; and including fuel consumption and CO ₂ emissions data in promotional material.

Sources

- Council Directive (EC) 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity. Official Journal L 283, p.0051 - 0070 Available on: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32003L0096:en:HTML> (accessed on 21 January 2014).
- Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products OJ L 285, p. 10-35 Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009L0125:EN:NOT> (accessed on 21 January 2014).
- Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products. OJ153, p.1-12. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32010L0030:EN:NOT> (accessed on 21 January 2014).
- Agence de l'Environnement et de la Maîtrise de l'Energie, 2011. *Agence de l'Environnement et de la Maîtrise de l'Energie website* [in French] [URL: <http://www.ademe.fr>]. Accessed 15 December 2012.
- European Commission (2014). *2030 framework for climate and energy policies*. Retrieved from: http://ec.europa.eu/clima/policies/2030/index_en.htm on 16/11/2014
- European Commission (2014). *Climate Action*. Retrieved from: http://ec.europa.eu/clima/policies/index_en.htm on 16/11/2014
- European Commission (2014). *European Energy Security Strategy*. Retrieved from: http://ec.europa.eu/energy/security_of_supply_en.htm on 11/11/2014
- European Commission (2015). Energy Topics. *Energy*. Retrieved from: <http://ec.europa.eu/energy/en/topics/markets-prices-and-consumers/market-legislation> on 26/11/2014
- European Union, n.d. *European Law website portal* [URL: <http://eur-lex.europa.eu>]. Accessed 15 December 2012.
- European Union, 2014. *EUROPA – official website of the European Union* [URL: <http://europa.eu/>].
- European Energy Agency, 2014. *Annual European Union Greenhouse Gas Inventory 1990–2012 and Inventory Report 2014. Submission to the UNFCCC Secretariat, European Energy Agency Technical report No. 9/2014* [URL: <http://www.eea.europa.eu/publications/european-union-greenhouse-gas-inventory-2014>]. Accessed 15 December 2014.
- Institute for European Environmental Policy (IEEP), 2010. *IEEP website, Climate Change and Energy section* [URL: <http://www.ieep.eu/topics/climate-change-and-energy/>]. Accessed 15 December 2012.
- Molyneux, C.G., Ryckman, C. (29 October 2014). 'The Road to Paris 2015: European Council Deal on Future Climate Change and Energy Policy'. *Inside Energy&Environment*. Retrieved from: <http://www.insideenergyandenvironment.com/2014/10/road-to-paris-2015-european-council-deal-on-future-climate-change-and-energy-policy/> on 14/11/2014