The climate ship comes in

European Union institutions have managed to push through the difficult adoption of an ambitious legislative package on energy and climate change in less than a year. The global financial crisis did not derail the plan, though it did force some concessions. Our Brussels correspondent Hughes Belin takes stock of the results.

by Hughes Belin

Despite the attempted "coup" instigated by the leaders of new member states, led by Poland, and Italy's Silvio Berlusconi, French president Nicolas Sarkozy managed, at the last moment, to get all 27 EU member states to agree on the new legislative package. With this feat, Sarkozy brought to an end the French presidency of the EU which the President of the Commission, José Manuel Barroso, described as 'effective, calm, and masterful'. Friends and enemies alike acknowledge Sarkozy's skills in getting this complex set of measures adopted, not only by all 27 member states, but also by a European Parliament bent on exploiting the full power of its role as co-legislator.

Not that everybody was happy with the result. Daniel Cohn-Bendit, co-President of the Greens/EFA Group in the European Parliament, complained that 'the triple 20% climate targets have been diluted to legitimise a four-wheel-drive economy'.

For the EU, it was vital that the legislation was adopted at first reading, before the European elections in June 2009 and in time to be able to negotiate from a strong position at the Climate Convention in Copenhagen in December 2009.

One of the most important elements of the new energy and climate legislation is the revised Emissions Trading Scheme (ETS). The EU's target of a 20% reduction in greenhouse gas emissions (30% in the event of a post-Kyoto global agreement being concluded) translates into a 21% emissions reduction for industrial sectors covered by the ETS compared to 2005. Other legislation within

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the energy-climate package applies to renewable energy, carbon capture & storage and sectors not covered by the ETS (transport, agriculture, services), which have to lower their emissions by 10% compared to 2005 figures.

Auctioning

Launched in 2005, the EU's Emissions Trading Scheme (ETS) covers more than 10,000 industrial installations within the EU, including all fossil-fuelled power plants. These represent 40% of total greenhouse gas emissions. ETS is the world's largest cap-and-trade scheme aimed at reducing climate-polluting emissions. It is also the cornerstone of the EU's climate change strategy and its revision sparked many heated debates.

The first two phases of ETS (2005-2007 and 2008-2012) have proven that a viable internal market in CO_2 emission permits ("allowances") can be used to put a price on carbon. However, the implementation of the scheme left much to be desired. When it became clear that too many allowances had been given out, the price of CO_2 fell dramatically. Moreover, the fact that allowances were handed out free of charge generated unjustifiable windfall profits for many power generators. Discrepancies in national allocation plans also led to unfair competition within the EU.

The revised ETS introduces a single EU-wide cap on the total number of allowances (including a single new entrants' reserve), a harmonised method for allocating allowances and standard key definitions. The quantity of allowances issued each year in the EU will decrease in a linear fashion, leading to a gradual reduction in the overall level of emissions each year.

Under the UN's Clean Development Mechanism (CDM), companies falling within the ETS can buy emission credits generated in third countries in order to meet their limits, provided that at least half of the EU-wide reductions between 2008 and 2020 are made within EU territory.

The new ETS will contain a mechanism aimed at promoting European solidarity

whereby poorer EU countries will be allocated a bigger share of allowances. The scope of the new ETS will also be extended to cover new greenhouse gases, such as nitrous oxide and perfluorocarbons in addition to CO_2. Installations generating less than 35 MW which emit less than 25,000 tonnes of CO_2 per year will be excluded from the scheme if measures are taken to ensure an equivalent reduction in emissions.

To counter insider trading and market manipulation, publication of market sensitive information by the EU Commission and member states will be strictly and clearly regulated. The current system whereby allowances are distributed free by member states with a maximum of only 5% being auctioned will remain in force until 2013. Thereafter auctioning of allowances will start. New member states from Eastern Europe will start in 2013 with a 30% auctioning rate and gradually build it up to 100% in 2020. In the old member states all allowances will be auctioned. Germany has been granted permission to subsidise up to 15% of the construction of new highly efficient fossil-fuelled power plants between 2013 and 2016 to compensate for the competition from its Eastern neighbours. A decision which Claude Turmes, member of the European Parliament's Greens/EFA Group, described angrily as a 'free lunch for German power giants'. Lithuania and Latvia will qualify for additional free allowances from the new entrants' reserve 'if it turns out that the closure of the nuclear power plant Ignalina leads to a very substantially increased emissions'. All these exceptions together will mean that approximately 12% of electricity generation in Europe will not be auctioned in 2013, the profits of which will be the equivalent of a subsidy to modernise the power generation sector of beneficiary countries.
For the energy-intensive industry (steel, glass, refineries, cement, ceramics, lime, paper and new to the ETS aluminium and petrochemicals), the new ETS represents an important victory, as most of theses sectors will escape the auctioning principle. During negotiations on reshaping the ETS, they could count on the support of German Chancellor Angela Merkel, who has always stressed the risk that companies that compete on a global scale, and may therefore be unable to include the cost of allowances into their prices, would move their production to countries outside the EU ("carbon leakage").
Most industrial sectors and sub-sectors will therefore get free allowances. The European Commission, in 2010, will establish a list of these (to be reviewed every 3 years) according

New framework for renewable energies

A compromise on the new EU renewables directive was reached even before the European Council meeting on 11-12 December. The European Parliament and the French presidency wanted to avoid at all costs having to discuss the dossier with the 27 heads of state and government. Although they did achieve that, the price they had to pay was making several concessions on the environmental benefits of the directive.

European governments did everything they could to ensure they had as few obligations as possible, as is always the case in European negotiations. For example, although the targets assigned to each member state for the renewables share of final national energy consumption by 2020 are binding, the intermediate targets are not. The same is true for the use of renewables in buildings. There are no minimum requirements, either for old or new buildings, even though most observers agree that incentives are sorely needed to boost the use of renewables in this sector.

The member states have also given themselves as much flexibility as possible to achieve their targets. For example, it will be possible to set up joint projects with one or more countries, to have joint national support schemes, statistical transfers and projects with non-European countries. The "guarantee of origin" market mechanism that was initially proposed was dropped, and the guarantees will now merely serve to certify, on electricity bills, that electricity from renewable sources is truly green. Otherwise, however, the certification schemes for renewable energy technologies and services will set strict criteria.
A clause relating to the evaluation of the directive by 2014 became a focus for vigorous debate towards the end of the negotiations, as Italy wanted to challenge the pre-set investment levels in the directive. In the end, the evaluation will now apply only to cooperation mechanisms.

The new directive differs from the old one in that it is comprehensive in scope. It covers all renewable energy sectors, including biofuels. The binding goal of 10% of renewable fuels in transport in 2020 for every European country includes green electricity used in cars and trains, as well as biofuels produced from waste, residues, non-food cellulosic and lignocellulosic biomass materials. This will have the effect of reducing the proportion of first generation biofuels being made from food crops.

The environmental benefits of biofuels were the object of heated discussions, and ultimately green biofuels will have to offer at least 35% carbon emission savings compared to fossil fuels to become certified – a figure that would rise to between 50-60% starting in 2017. Indirect land use change (whereby carbon sinks are replaced by land under cultivation, due to the development of biofuels) will also be taken into account in this calculation. On the other hand, no social impact criteria are included, despite the European Parliament's insistence on these.

to strict criteria. By 2011 it will propose solutions, based on the outcome of the negotiations for a global agreement on the climate, to counter the risk of carbon leakage after 2012. Possible measures are to subject imports to a carbon-tax or an option - backed by industry - whereby allowances below a certain level of emission (the benchmark of the best available technology) will be granted for free; above that level they would have to be purchased via auction. 'By allocating allowances on the basis of the most efficient benchmarks, the scheme will reward energy efficient companies that have invested in environmentally friendly production processes', explains Avril Doyle, British liberal MEP and rapporteur on the ETS directive.

For industrial sectors not exposed to the risk of carbon leakage, the initial level of auctioning in 2013 will be set at 20% and increase to 70% in 2020, with a view to reaching 100% in 2027. 85% of allowances in the aviation sector, also covered by the ETS, will be granted for free for the entire 2013-2020 period.

It has been estimated that auctioning allowances will generate a total of at least €33 billion per year (at an estimated CO_2 price of 30 euros/tonne). The revenue thus generated will be distributed to the member states, which can spend it as they see fit. EU government leaders have expressed their 'willingness' to earmark 50% of the funds for the fight against climate change in its broadest sense and the development of 'other technologies contributing to the transition to a safe and sustainable low-carbon economy'.

Critics have accused the Commission of having sold out on the climate–energy package. In response, Jos Delbeke, chief energy negotiator at the Commission, has reassured them that 'the package is intact because the targets are intact'. By his reckoning, 50% of all ETS allowances will be auctioned in 2013 and the rate will increase to between 60 and 70% in 2020.

Kees van der Leun, board member of Econcern, one of Europe's largest and most diversified producers of renewable energy, is satisfied that 'the 20-20-20 goals are now translated into a concrete agreement. This is of enormous importance to the renewable energy business. We did not expect the package to be accepted without any compromises', he adds.

Outsourcing

In addition to the ETS, the energy-climate package establishes binding annual reduction targets for non-ETS emission reductions in member states – these emissions make up 60% of the EU's greenhouse gas emissions. The reduction target for the EU as a whole is 10% but different member states have different targets. This is called "effort-sharing". Poor economies, such as Bulgaria and Romania, may even increase their emissions by up to 20%, while the richest economies will have to decrease them by up to 20%. Corrective measures will apply when a member state exceeds its annual limits.

The most controversial provision in the package is the possibility for member states to "offset" emissions, i.e. to buy emission credits abroad, of up to between 60 and 80% of their reduction targets. This contradicts the principles of the Kyoto protocol which advocates that the most emission reduction should take place at home, i.e. domestically.

For the energy-intensive industry, the new ETS represents an important victory

The EU has also adopted a new directive providing a legal framework for new CO_2 capture and storage technology (CCS). Up to 300 million allowances will be set aside from the new entrants' reserve to help stimulate CCS demonstration projects in the EU. The value of this support mechanism will depend on the price of CO_2, but according to British liberal MEP Chris Davies, rapporteur on the directive, it could amount to between €6 and 9 billion, providing 'the financial means to bring about the construction of 9 or 10 commercial CCS demonstration projects across Europe.' This is, however, a somewhat optimistic view because the budget also includes demonstration projects of renewable energy technologies, although large-scale solar projects in North Africa are de facto excluded from the mechanism. ■