



Directorate-General for Internal Policies  
Directorate A - Economic and Scientific Policy  
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## **Briefing Note for EEA Joint Parliamentary Committee Meeting (September 2007)**

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The briefing note summarises current key issues on energy and climate change policies, based mainly on the package of measures proposed by the European Commission on 10<sup>th</sup> January 2007 to establish an integrated energy and climate change policy. The package aims at combating climate change and boost the EU's energy security and competitiveness. It proposes set a series of ambitious targets on greenhouse gas emissions and renewable energy and aim to create a true internal market for energy and strengthen effective regulation. The note also includes elements of the third legislative package on the EU electricity and gas market of 19 September 2007.

The note focuses on providing information on the status of the proposed initiatives and gives the view of the Parliament in its most recent resolutions on the matters. The note also provides information on the foreseen upcoming policy initiatives and the schedule of the foreseen legislative process.

The note is structured as follows:

### **Climate change**

- Greenhouse gases emission reduction targets and international negotiations
- Revision of the European Emission Trading Scheme
- Inclusion of aviation in the European Emission Trading Scheme
- CO<sub>2</sub> emissions from cars
- Carbon Capture and Storage
- Temporary Parliamentary Committee on Climate Change
- Adaptation to climate change

### **Energy policy**

- Internal energy market
- Common foreign energy policy
- Energy efficiency
- Renewable energy
- Research and Development

## 1. CLIMATE CHANGE

### 1.1. Greenhouse gas reduction targets and international negotiations

In the Communication of January 2007 on “Limiting Global Climate Change to 2 degrees Celsius”<sup>1</sup>, the Commission proposed the EU pursue, in the context of international negotiations, the objective of 30 % reduction in greenhouse gas emissions by developed countries by 2020. At the Spring European Summit<sup>2</sup> the Council agreed to commit to a 30% cut only if international agreement is reached and accepted the proposed 20% binding overall EU target for GHG emissions cut by 2020. The Council however stated the need for a differentiated approach to the contributions of Member States, reflecting fairness, transparency, national circumstances, and relevant base years for the first commitment period of the Kyoto Protocol. A Commission proposal for the revision of the burden sharing agreement of 16 June 1998<sup>3</sup> dividing the EU’s 20% target between Member States, is due in December 2007.

The Parliament on the other hand strongly supports an EU 30% reduction regardless of post-Kyoto international negotiations and the cutting of global emissions by 50% in 2050 as proposed by the Commission, implying reductions in developed countries by 60-80%. The next round of international negotiation is foreseen for the UNFCCC-COP/CMP Meetings in Bali starting on 3rd December 2007, whereby the post-2012 framework should be agreed.

### 1.2. Revision of the European Emission Trading Scheme

Market based instruments such as the emission trading schemes are proposed by the EU as the key tool to ensure that Europe and other countries reach their greenhouse gas reduction targets at least cost. The EU generally supports that comparable domestic trading schemes be linked with one another, with the EU Emissions Trading Scheme (EU ETS) as the pillar of the future global carbon market.

In January 2005, the EU ETS came into operation as the largest multi-country, multi-sector greenhouse gas emission trading scheme in the world.<sup>4</sup> A proposal for a revision of the scheme, to ensure its functioning after 2012, is expected before the end of the year. The revision will address modifications to the scope of the scheme (inclusion of other sectors such as road, rail or maritime transport), to the allocation mechanisms, to the compliance and enforcement mechanisms and allow the opening of the scheme to third countries.

In its recent resolutions<sup>5</sup>, the Parliament favoured a harmonisation of the allocation methods and an auctioning as well as stricter enforcement mechanisms, while at this stage the Council is still fighting with the Commission on the national allocation plans for the second trading phase of the scheme (2008-2012).

### 1.3. Inclusion of aviation in the Emission Trading Scheme

Air travel currently causes at least 3% of global CO2 emissions and emissions grew of 87% between 1990 and 2004, while air traffic is expected to more than double in the next 15 years. Without action, the growth in emissions from flights from EU airports will by 2012 cancel out more than a quarter of the 8% emission reduction the EU-15 must achieve to reach its Kyoto Protocol target.

A proposal of December 2006 to extend the EU ETS to the aviation sector<sup>6</sup> to cover flights within the EU from 2011 and all flights arriving/departing the EU from 2012 is under first reading in the Parliament. In its latest adopted resolutions<sup>7</sup>, Parliament has favoured a

separate trading scheme for aviation. However successive debates in two key Parliament committees on the legislative proposal in September, revealed strong divergences.

While the Commission is proposing an overall CO<sub>2</sub> cap based on average plane emissions in 2004-2006, the Transport Committee said<sup>8</sup> that this would fail to take into account the sector's recent strong growth levels. It called for the cap to be set at higher level of emissions and suggested that airlines be given most of this quota for free. Lastly, it asked for the scheme to be delayed until 2012 so that all airlines are treated equally. Discussions in the Environment Committee, which has the lead on the issue, on the other hand focus on proposing even tighter caps and discussions favour at least 50% auctioning. The proposal is expected to be voted in the Environment Committee in October and put to plenary vote in November.

The Council endorses the Commission proposal to include aviation in the existing scheme but so far generally rejects the proposed two-step introduction wishing a single date for all flights and has not agreed on a specific date (likely to be between 2011 and 2013). The Portuguese presidency has put aviation emissions trading on the agenda of its December Environment Council and would like to get a first reading agreement on the proposal that month.

#### **1.4. CO<sub>2</sub> and emissions from cars**

After power generation, road transport is the second biggest source of greenhouse gas emissions in the EU. It contributes about one-fifth of the EU's total emissions of CO<sub>2</sub> and emissions are still rising rapidly (26% between 1990 and 2004). Passenger cars alone are responsible for around 12% of EU CO<sub>2</sub> emissions.

The field of car emissions have since 1998 been governed by a voluntary agreement<sup>9</sup> but the cars manufacturers are expected to miss their voluntary target for reducing CO<sub>2</sub> emission by 2008. The Commission therefore proposed in February 2007 a new emission reduction strategy for light vehicles (cars and vans)<sup>10</sup>. The strategy is to be followed by the end of the year by a proposal for binding legislation for the car industry to limit the CO<sub>2</sub> emissions from passenger cars marketed in the EU to 120 g/km by 2012.

In its Climate Change Resolution of 14 February 2007<sup>11</sup>, the Parliament supported the binding 120g/km to be achieved through technological engine improvements alone. On 12 September, the Environment Committee confirmed this view<sup>12</sup>, thereby rejecting the 'integrated approach' supported by the Commission and automobile manufacturers, whereby 130g/km should be achieved through vehicle-technology improvements and 10 g/km are to come from complementary measures (such as use of biofuels, fuel-efficient tyres and air conditioning, traffic and road-safety management and changes in driver behaviour). The adoption of the report is scheduled for November plenary.

The Council supports the adoption of legislation but still considers the level of target and if it should include complementary measures.

#### **1.5. Carbon capture and storage (CCS)**

Capturing CO<sub>2</sub> emissions from power plants and storing it underground is one of the technologies being developed to counter global warming. The EU has set up a Technology Platform on Zero Emission Fossil Fuel Power Plants at the end of 2004 and is preparing a regulatory framework to commercialize this new technology expected for November 2007.

In the Communication on Sustainable power generation from fossil fuels<sup>13</sup> issued in January 2007, the Commission outlines the main principles underlying a policy that would enable CCS technology to be smoothly introduced (including licensing and management

requirements at the EU level, the acceptance at international level). It proposes that by 2015, 12 large-scale demonstration projects are launched for coal and gas-fired power plants and by 2020 all new coal-fired plants should include CCS technology while existing plants would be 'retrofitted' subsequently.

The Parliament supports the development of a regulatory framework for the introduction of CCS technology<sup>14</sup>. In the draft own-initiative report on Conventional energy sources and energy technology<sup>15</sup> to be adopted in October, the rapporteur is once again stating support to this approach however at the same time pointing to the problems of efficiency losses in power stations, CO2 storage issue and to the fact that the viability at industrial level has not yet been proven or evaluated.

## **1.6. Temporary Committee on Climate Change**

On 25 April 2007, the Parliament has established for a period of 12 months, a Temporary Committee on Climate Change. Its aim is to coordinate the Parliament's position on climate change-related policies and to formulate proposals on the EU's future integrated policy on climate change. It also intends to play a key-role in awareness raising and in ensuring this important issue remains high on the international agenda. The temporary committee may make recommendations as to measures or initiatives to be taken and will contribute to shape the EU's approach to developing the future integrated climate change policy and influence the negotiations for the post-2012 international climate change framework. It is currently working on the preparation of a position for the next UNFCCC-COP/CMP Meetings in Bali in December 2007.

## **1.7. Adaptation to climate change**

The climate policy based on emission reduction need to be complemented with an efficient response to the unavoidable consequences of climate change, which are already happening today. Models developed under the 4th IPCC Assessment Report<sup>16</sup> show that if no action is taken to reduce greenhouse gas emissions, the global mean temperature would increase by about 3.4°C by 2080 compared to 1990 levels, affecting negatively nearly all European regions. Concrete action for adaptation range widely, covering soft and relatively inexpensive measures (water conservation, changes in crop rotations, sowing dates and use of drought tolerant crops, public planning, and awareness raising) to costly defence and relocation measures (increasing the height of dykes; relocating ports, industry, cities and villages from low-lying coastal areas and flood plains; building new power plants because of failing hydropower stations etc.).

In June 2007 the Commission issued a Green Paper on Adaptation<sup>17</sup>, which is being followed by a public consultation open until end of November 2007. A European Advisory Group for Adaptation to Climate Change will work on the development of Community adaptation policies to be put forward by end 2008. Early action at the EU level could include integrating adaptation when implementing existing and upcoming legislation and policies, integrating adaptation into existing Community funding programmes and developing new policy responses.

## 2. ENERGY POLICY

### 2.1. Internal Energy Market and Security of Supply

On 19 September 2007, the Commission issued a package of proposals for directives designed to further liberalise the internal market for gas and electricity. It includes revision of the rules for the internal market of electricity and natural gas, conditions for access to network for cross-border exchange, measures to safeguard security of supply, transparency measures and measures for the further cooperation of national energy regulators.<sup>18</sup> Among the issue at stake the following are worth noting:

#### *Unbundling*

In its February 2007 Communication for a new Energy Policy for Europe, the Commission underlined the importance of unbundling for the further integration and functioning of the internal energy market, recommending a full ownership unbundling. On 8-9 March, the Council stated a support for effective separation of supply and production activities from network operations (unbundling), based on independently run and adequately regulated network operation systems, but the wording did not go as far as full ownership unbundling. Due to reluctance from some Member States (Germany and France in particular) for the ownership unbundling scenario, the Commission is therefore proposing in the September legislative package to include the option for the implementation of effective independent systems operators (the so-called ISO plus scenario) alongside the preferred option of full legal unbundling. It also does not make any difference between the electricity and gas markets concerning unbundling requirements.

Parliament has repeatedly supported the principle of unbundling. In its latest resolution on the prospects for the internal gas and electricity market adopted July 2007<sup>19</sup> the Parliament considers transmission ownership unbundling to be the most effective tool to promote investments in infrastructures in a non-discriminatory way, fair access to the grid for new entrants and transparency in the market. It underlined however that this model might not address all of the issues at stake. In particular, it recognises that the application of further unbundling measures for the gas sector is not straightforward and therefore urges the development of specific solutions to enable this sector to achieve the completion of the internal gas market, taking into account the differences between the upstream and downstream markets.

#### *Reciprocity*

In its report on towards a Common European Foreign Energy Policy of 11 September 2007<sup>20</sup>, the Parliament's Foreign Affairs Committee called once more on the Commission's to take appropriate measures to prevent uncontrolled investment by state-owned foreign companies in the EU's energy sector, in particular the gas and electricity transmission networks and to closely monitor the observance of these measures. The Commission has indeed included in the 19 September proposal to apply the principle of reciprocity to third countries concerning market access requirements and ownership rules.

#### *Regulation and cooperation*

The Parliament has supported the enhancing of cooperation between national regulators at EU level, through an EU entity, as a way to promote a more European approach to regulation on cross-border issues. To achieve this, the Commission proposes to establish an Agency for the cooperation of National Energy Regulators, with binding decision powers, to complement

National Regulators. It is foreseen that this would ensure the proper handling of cross-border cases and enable the EU to develop a real European network working as one single grid, promoting diversity and security of supply. The Commission proposes also measures to strengthen and guarantee the independence of national regulators in Member States. To promote cross border collaboration and investment: a new European Network for Transmission System Operators would be established so that EU grid operators would cooperate and develop common commercial and technical codes and security standards, as well as plan and coordinate the investments needed at EU level.

## **2.2. Common foreign energy policy**

Due to current existing and increasing energy supply dependency on largely unstable and undemocratic countries, efforts to ensure security of supply exclusively at the national level is proving to be insufficient. The EU's dependency on imported energy might also have significant effects on the independence of its decision-making in other policy areas. The EU recognises the importance of security of supply and increased international cooperation (with both producers and consumers) and generally sign up to the need for having a common voice in foreign energy and climate relations.<sup>21</sup>

The own initiative report of 11 September 2007 of the Parliament's Foreign Affairs Committee stresses once more that while recognising the sovereign right of Member States to make strategic choices concerning the energy mix, there is a need to elaborate concrete provisions to be included in the Treaties. These should cover security of supply, transit and investment related to energy security, and the promotion of energy efficiency and energy savings as well as clean and renewable energy sources, particularly in relations with countries whose energy consumption is growing rapidly. The AFET Committee also proposes to appoint a High Official for Foreign Energy Policy who should be responsible for coordinating all policies under the scope of the common European foreign policy on energy.

As in previous resolutions<sup>22</sup>, the application of the Energy Charter Treaty is requested, and the inclusion of the substance of the Transit Protocol in all treaties and agreements of the EU with its energy partners. Member States and the Commission should pursue efforts to promote within the EU neighbourhood the extension of the principles and norms of the internal market. The Committee furthermore calls for an “energy security clause” be included in trade, association, and partnership and cooperation agreements with producer and transit countries, laying down a code of conduct and outlining measures to be taken in the event of disruption, or any unilateral change of supply by one of the partners. It supported the creation of an efficient mechanism to react in the event of supply disruptions, including measures to make effective use of warning systems and build up an interconnecting EU energy crisis infrastructure, especially for gas and electricity, which could be used to assist Member States in need.

The Parliament has repeatedly stressed, as in the latest resolution on EU economic and trade relations with Russia of June this year<sup>23</sup>, the importance of the EU's energy partnership with Russia, while pointing out that Russia continues to be almost entirely dependent on the EU market and its individual larger-scale European consumers in its energy exports. In addition to the need for Russia to ratify the Energy Charter Treaty, the EU should negotiate a formal framework document on energy relations with Russia in the context of the new Partnership and Cooperation Agreement. The Council and the Commission should use their leverage to persuade Russia to commit itself to open, fair and transparent markets for energy production and supply.

### 2.3. Energy efficiency

An Energy Efficiency Action Plan has been adopted by the Commission in October 2007<sup>24</sup> outlining a framework of policies and measures to intensifying the process of realising the 20% estimated savings potential in EU annual primary energy consumption by 2020. The Plan lists a range of cost-effective measures, proposing 10 priority actions to be initiated immediately, and others to be initiated gradually over the Plan's six year period. Proposed measures include energy efficiency labelling standards, building performance requirements, improving efficiency of power generation and distribution, cars fuel efficiency, facilitating financing of energy efficiency investments for SMEs and Energy Service Companies and a coherent use of taxation.

The Parliament promotes a target of at least 20% improvements in energy efficiency by 2020<sup>25</sup> while Council proposes it as an objective to reach. An own initiative report on the proposed Community Action Plan is expected to be adopted by the Parliament in January 2008<sup>26</sup>.

### 2.4. Renewable energy

In 2001 the EU adopted a Directive on the Promotion of Electricity produced from Renewable Energy Sources<sup>27</sup> setting an EU-wide target of 12% of renewables share in electricity production by 2010. According to the Renewable Energy Roadmap<sup>28</sup> released as part of the January 2007 energy package, the EU 12% target will not be met and the share of RES will not exceed 10% by 2010.

A legislative pathway to bring renewable energies in the fields of electricity, heating and cooling and transport to the economic and political mainstream is expected before the end of the year and will include increased flexibility in target setting across sectors. It will provide for continued cost-effective efforts to remove unwarranted barriers to renewable energies, taking into consideration environmental and social aspects, and be compatible with the internal energy market.

At the Spring Summit 8-9 March the Council accepted 20% as a binding overall EU target, with allocation of differentiated MS targets to be decided later taking account of different national starting points and potential, including the existing level of renewable energies and energy mix. It is worth noting that this agreement was obtained only after inclusion of a reference to nuclear energy as contributing to CO<sub>2</sub> reductions. The Council also endorsed a binding 10% target for biofuels, whilst Parliament has suggested a more ambitious 12.5% binding target and calls for certification scheme and standards for sustainable production.

Parliament has called several times for binding sectoral RES targets for an overall share of 25% of RES in the energy mix in order to bring real emission reductions. In July 2007, the ITRE Committee adopted a report on the proposed roadmap<sup>29</sup>, calling for an agreement on assigning the 20% renewable target to be reached swiftly, taking into account cost-effectiveness and sectoral analyses. It emphasises the importance of creating and implementing Renewables Action Plans (RAPs) at Community and national levels incorporating sectoral targets to encourage investment, innovation and research in all sectors. The vote in plenary is scheduled for end of September.

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