Energy and climate change policy of the EU

Rajko ODOBAŠA
Faculty of Law
OSIJEK

1. The objectives of the unique energy and climate-change policy

- The European Union has long been a driving force in international negotiations that led to agreement on the two United Nations climate treaties - the UN Framework Convention on Climate Change (UNFCCC) in 1992 and the Kyoto Protocol in 1997.

- The Kyoto Protocol requires the 15 countries that were EU members at the time ('EU-15') to reduce their collective emissions in the 2008-2012 period to 8% below 1990 levels.

- Emissions monitoring and projections show that the EU-15 is well on track to meet this target.

- The Commission opened debate on a future European energy policy with the publication of a **Green Paper** in March 2006.

- The need to act was prompted by:
  1. concerns regarding high oil and gas prices
  2. worries about Europe's increasing dependency on a few external suppliers
  3. the global-warming crisis.

- As a follow up to the Green Paper, the Commission show a 'package' of energy and climate change proposals on 2007

- EU heads of state and government accepted the Commission's proposals at a summit in March 2007, agreeing on a two-year action plan to launch a **common European energy policy**

- ***Central to the summit agreement is a recognition that energy and climate-change policies should go hand in hand.***

- **It stressed the need for "decisive and immediate action" on climate-change: "the vital importance of achieving the strategic objective of limiting the global average temperature increase to not more than 2°C above pre-industrial levels". (That is just 1.2°C above today's level).**

- <u>To achieve this aim, EU leaders agreed to:</u>

  1. A binding target to rduce the EU's greenhouse gas emissions by 20% in 2020 compared with 1990 levels;

  2. commitment to reduce emissions by 30% provided that other industrialised nations, including the US, commit themselves to comparable emission reductions

- To achieve these objectives, the summit adopted an action plan to be implemented between 2007 and 2009. The plan's main elements include:

  - completing the internal market for electricity and gas;

  - a binding target to raise the EU's share of renewables to 20% by 2020;

  - an obligation for each member state to have 10% biofuels in their transport fuel mix by 2020;

  - increased energy efficiency with a target to save 20% of the EU's total primary energy consumption by 2020;

  - aiming towards "a low CO2 fossil fuel future" with support for “clean coal” technology, using carbon capture and storage deep underground;

  - developing a common external energy policy to "actively pursue Europe's interests" on the international scene with major supplier, consumer and transit countries, including Russia;

  - developing a European Strategic Energy Technology Plan to focus R&D efforts on low carbon technologies, and;

  - on nuclear, the Commission chose to take an "agnostic" stance, leaving it up to member states to decide.

2. Results - Key Findings 2011 and indicative rating of implemented EU regulations:

- **General**

- Coverage is high. The EU is committed to reduce greenhouse gas emission by 80% to 95% by 2050. However, an agreed climate strategy does not yet go beyond 2020. Innovation strategies and the amount of resources for research and development in climate change and energy are mainly determined nationally.

- Flexibility for member states is significant. Long term EU targets are not yet legislated or binding. Resources for research and development have some EU guidelines.

- Score: 'F'. Although the longer term target is a step in the right direction, the target is not binding and the implementation strategy only reaches until 2020.

- Electricity supply

- A) Renewables Energy

  - Coverage is almost complete. **The Renewable Energy (RES) Directive** sets renewable targets for 2020 and regulates most prominent barriers.

  - Flexibility for member states is significant. The RES Directive sets binding targets – member states have flexibility in choosing support mechanism and are not required to differentiate between different types of technology. The most prominent barriers are regulated.

  - Score: 'B'. The target of the RES Directive of 20% renewable energy in 2020 is quite ambitious. In the electricity supply sector this translates to a 15-20% increase in renewable electricity's share in 2020, which is almost as ambitious as the 20% increase required in the low-carbon policy package.

- B) Energy efficiency

  - Coverage is high, with a directive aiming to stimulate combined heat and power (CHP) use. Losses during distribution of electricity and heat have only recently been covered by the recently proposed draft of the **Energy Efficiency Directive**. Investments in electricity grids are as yet minimally coordinated by the EU.

  - Flexibility for member states is high, as the CHP Directive gave non-binding targets until 2010. Its impact heavily depends on implementation at member state level, which is weak at the moment.

  - Score: 'F'. The requirements of the CHP Directive are not ambitious enough.

WHAT IS EU EMISSIONS TRADING SYSTEM (EU ETS)?

- The EU Emissions Trading System (EU ETS) is a cornerstone of the European Union's policy to combat climate change and its key tool for reducing industrial greenhouse gas emissions cost-effectively.
- Being the first and biggest international scheme for the trading of greenhouse gas emission allowances, the EU ETS covers some 11,000 power stations and industrial plants in 30 countries.
- Launched in 2005, the EU ETS works on the **"cap and trade**" principle
- This means there is a **"cap", or limit,** on the total amount of certain greenhouse gases that can be emitted by the factories, power plants and other installations in the system.
- Within this cap, companies receive emission allowances which they can sell to or buy from one another as needed. The limit on the total number of allowances available ensures that they have a value.
- At the end of each year each company must surrender enough allowances to cover all its emissions, otherwise heavy fines are imposed.

- If a company reduces its emissions, it can keep the surplus allowances to cover its future needs or else sell them to another company that is short of allowances.
- The flexibility that trading brings ensures that emissions are cut where it costs least to do so.
- The number of allowances is reduced over time so that total emissions fall. In 2020 emissions will be 21% lower than in 2005.
- The ETS now operates in 30 countries (the 27 EU Member States plus Iceland, Liechtenstein and Norway).
- It covers CO2 emissions from installations such as power stations, combustion plants, oil refineries and iron and steel works, as well as factories making cement, glass, lime, bricks, ceramics, pulp, paper and board.
- Airlines will join the scheme in 2012. The EU ETS will be further expanded to the petrochemicals, ammonia and aluminium industries and to additional gases in 2013, when the third trading period will start.

- Industry

- Renewables energy

  - Coverage is high, with the RES (**The Renewable Energy) Directive** influencing the use of renewables in industry and potentially imposing sustainability criteria on biomass.

  - Flexibility is significant as member states have flexibility in choosing if support mechanism for renewable energy apply to industry and how «sustainability» criteria are applied.

  - Score: 'C'. Corresponding to the 'B' score on renewable electricity, achieving the 20% renewables target will help reach 10% share of renewables in industry in 2020 that is given in the low-carbon policy package. The lack of stringent biomass sustainability requirements is a problem for heat production in industry.

- Energy efficiency

  - Coverage is medium, with only the Eco-design Directive directly impacting energy efficiency policies in industry.

  EU emission trading system has an indirect effect.

  The recently proposed – but not yet adopted - Energy Efficiency Directive includes frequent and mandatory energy audits for large companies, as well as a greater use of residual heat and heat from cogeneration.

  - Flexibility for member states is significant, since there is no binding energy efficiency target for member states. Member states are tied to the norms on electrical motors set in the Eco-design Directive.

  - Score: 'E'. The EU energy efficiency target of 20% is in line with a low-carbon policy package, but policies are missing.

  Doubling of ambition in energy efficiency in industry is needed.

- Buildings

- Renewables energy

  - Coverage is almost complete as the use of renewable energy and new technologies are supported by the Energy Performance of Buildings Directive and the share of RES in buildings is (indirectly) covered by the RES Directive.

  - Flexibility is significant as member states have the flexibility in choosing support mechanisms.

  There is no specific building related target for the increase in the use of renewable heat and cooling in buildings.

  - Score: 'C'. Corresponding to the 'B' score on renewable electricity, achieving 20% renewables target will help reach the additional 10% share of renewables in buildings in 2020 that is given in the low-carbon policy package.

  The lack of to collect biomass requirements is a problem for heat production in buildings.

- Energy efficiency

  - Coverage is medium, as the **Eco-design Directive** sets minimum performance standards for (some) equipment. The Energy Performance of Buildings Directive sets standards for existing buildings, although the most prominent barriers (such as the landlord-tenant dilemma) are not regulated.

  - Flexibility for member states is limited. Member states have significant flexibility in complying with the demands for existing buildings, but cannot adopt stricter norms on appliances regulated by the Eco-design Directive.

  - Score: 'D'. The ambition level of the Eco-design Directive should be doubled and the requirement for nearly zero energy buildings should be shifted from 2020 to 2014 for a maximum score.

- Transport

- Renewables energy

  - Coverage is high. The RES Directive sets a binding target of 10% share of renewables in transport in 2020, including sustainability criteria.

  The gap is that there is no EU legislation on the development of infrastructure for electric mobility.

  - Flexibility for member states is significant. Member states are free to decide on policy measure to meet the binding target.

  - Score: 'C'. Target of 10% renewables in 2020 is in line with the requirements for a low-carbon policy package, but the sustainability criteria are insufficient.

- Energy efficiency

  - Coverage is medium. EU has CO2 efficiency standards for new passenger cars and vans.

  The main gap is freight transport via road, rail or shipping is not covered. With about 9% of the primary energy use in the EU it is the most significant economic activity not covered.

  - Flexibility for member states is low. Emission norms for vans and passenger cars are part of an EU regulation directly and entirely applicable to all member states.

  - Score: 'E'. Standard for new passenger cars is phased in from 2012 to 2015 (130 gCO2 per km) with a longer term (not binding) target of 95 gCO2 per km.

- Agriculture

  - The major gap in the EU's agriculture policy is that it does not include a long term climate perspective.

  A reform of the EU subsidy scheme, taking emissions into consideration, would be needed, especially in the longer term of our vision, when agriculture will become the main emitter of greenhouse gas emissions.

- Forestry

  - The EU's forestry policy is guided by the RES Directive, which encourages member states to complete biomass plans, and the Cohesion Funds, where beneficiaries can be supported for investment in reforestation.

  - Gaps are that comprehensive land use strategies, forest management and prevention of deforestation are not directly targeted at EU-level.

3. Concluding remarks

- Climate change is one of the biggest challenges facing mankind in the coming years: rising temperatures, melting glaciers and increasingly frequent droughts and flooding are all evidence that climate change is really happening

- We need to take urgent action

- European Union is commit to tackling climate change both internally and internationally and has placed it high on the EU agenda, as reflected in European climate change policy

- EU is taking action to stop greenhouse gas emissions in all its areas of activity in a attempt to achieve the following objectives:

  - consuming less-polluting energy more efficiently, - creating cleaner and more balanced transport options, - making companies more environmentally responsible without compromising their competitiveness, - ensuring environmentally friendly land-use planning and agriculture and - creating conditions conducive to research and innovation