

EU Energy and Climate Change Strategy

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THE PURPOSE

- **European strategic vision on energy and climate change as a chance to reshape society**
 - competitiveness for European economy (often perceived as a burden, the energy policy should actually reduce costs, create new market opportunities and contribute to employment),
 - energy security and
 - environmental concerns (air quality + climate change)
- **Opportunities brought by the Lisbon Treaty**
- **Current work to further European integration with regard to energy and climate change policies**
- **Policy challenges and budgetary resources post-2012**

CONTENT OF THE PRESENTATION

- **The European Energy and Climate Change Policy**
- **European Strategic Energy Technology plan**
- **The Lisbon Treaty**
- **Roadmap to a low carbon economy in 2050**
- **Energy Efficiency plan 2011**
- **Energy infrastructure priorities for 2020**
- **Policy challenges and budgetary resources for a sustainable European Union after 2013**
- **Conclusions**

European Strategy for Energy and Climate Change

The main objective:

- **20% GHG emissions reduction in 2020
(30% if there is an international climate agreement)**
- **20% share of renewables by 2020**
- **20% more energy efficiency by 2020 (not binding)**

European Strategy for Energy and Climate Change

Unbundling - Towards Efficient Energy Markets

Objective: a complete and well functioning internal market in electricity and natural gas

- effective separation of supply and production activities from the network operation
- further harmonisation of powers and enhanced independence of the national energy regulators
- creation of a mechanism for transmission systems operators to improve the coordination of network operation and grid security, cross-border trade and grid operations
- greater transparency in energy market operations

European Strategy for Energy and Climate Change

Renewables

Objective: to get to 20% RES by

- « Burden » sharing between the Member States, on the basis of the current share of RES and the GDP projections
- The establishment of certificates of guarantees of origin for energy vectors derived from RES
- The establishment of a market for these certificates
- A specific 10% target for sustainable renewable based fuels in transport, in each Member State, subject to the fact that biofuels are sustainable and that the 2nd generation biofuels becomes economically available
- With sustainability criteria for biofuels

European Strategy for Energy and Climate Change

GHG and the Emissions Trading Scheme

From 2005:

- The Emission Trading Scheme (ETS) is in place
- It involves only CO₂ and only some industrial sectors (power generation and large combustion installations)

For 2008-2012:

- This is the second period of the ETS
- It corresponds to the 1st commitment period of the Kyoto Protocol
- The Kyoto commitment is for the EU15 and there is a burden sharing agreement between the Member States

After 2012 :

- Improvements of the ETS
- -20% GHG compared to 1990

European Strategy for Energy and Climate Change

GHG and the Emissions Trading Scheme

Objective: To improve the functioning of the European Emissions Trading Scheme (ETS)

- The inclusion of greenhouse gases other than CO₂
- The inclusion of petrochemicals, ammonia and aluminium
 - A market covering 150 million tons of CO₂ equivalent per year
- Auctioning the emission allowances for the power sector from 2013
 - A potential revenue of 30000 to 50000 million €/yr for Member States, 20% of which must be re-injected in low greenhouse gas technologies
- The inclusion of CO₂ capture and storage from 2013 in the ETS
 - With a specific directive on the geological storage of CO₂
- Specific arrangements for energy intensive industries to maintain their competitiveness if there is no global climate change agreement in place by 2011

European Strategic Energy Technology plan

- To achieve the objectives, major investment in areas of the knowledge triangle reinforcing research, education and innovation in the energy sector in Europe, have to be done
- Development of new, more efficient and affordable energy technologies are crucial to ensure energy supply (offshore wind, solar, second-generation biofuels, smartgrids, storage)
- Joint planning (EU level, MS, regional level)
- Builds on actions already in place: EU RTD Framework Programmes, Intelligent Energy-Europe, European Technology Platforms, ERA-Net scheme, Networks of Excellence, Joint Technology Initiatives and Joint Programming

The Lisbon Treaty

Lisbon Treaty 1 December 2009

New powers to Europe in several policy areas such as energy, climate change and scientific research

Energy is a shared responsibility (EU and MS)

Lisbon Treaty sets clear objectives: a functioning single internal energy market, security of supply, energy efficiency and the promotion of energy networks and renewable sources of energy

Climate change is a shared responsibility (EU and MS)

Lisbon Treaty reinforces Europe international leading role

Roadmap to a low carbon economy in 2050

Objective 80 to 95% overall GHG reduction by 2050

Sectors responsible for Europe's emission – power generation, industry, transport, buildings and construction – must all prepare the transition to a low-carbon economy

Cost effective and gradual transition requires a 40% domestic reduction of greenhouse gas emissions (compared to 1990) and a 60% reduction in 2040 as a milestone for 2030 leading to the 80% figure by 2050

All Member States should develop national low carbon Roadmaps

Electricity will play a central role:

- Investment in smart grids
- Development of energy storage technologies
- The key driver for this transition will be energy efficiency

Energy Efficiency

Energy efficiency is at the heart of European policies for smart, sustainable and inclusive growth

Public sector organisations should play an “exemplary role”

EU energy efficiency plan targets public buildings

The energy efficiency objective (20%) is not a binding target but mandatory national targets may be proposed in 2013 if the voluntary approach has not worked

Energy infrastructure priorities for 2020

A new EU energy infrastructure policy is needed to implement the energy strategy

An integrated European grid will bring benefits in terms of security of supply and the stabilisation of consumer prices

Europe will define priority corridors for the transport of electricity, gas and oil

Around 200 Billion Euro must be invested in energy transport, in gas pipelines and power grids

As part of its proposals for the next multiannual financial framework, the Commission proposes initiatives which will address the regulatory and financial aspects, notably through an Energy Security and Infrastructure Instrument and mainstreaming of energy priorities in different programmes

Policy challenges and budgetary resources for a sustainable European Union after 2013

Energy security and the fight against climate change in Europe will require major and sustained investment in Europe

Public private financing mechanisms are key to overcoming initial financing risks and cash flow barriers

A fully functioning single market depends on modern, high performing infrastructure connecting Europe particularly in the areas of transport, energy and information and communication technologies (ICT)

The Commission proposes to allocate €40 billion for the 2014-2020 period for the Connecting Europe Facility to be complemented by an additional €10 billion ring fenced for related transport investments inside the Cohesion Fund.

This amount comprises €9.1 billion for the energy sector, €31.6 billion for transport (including €10 billion inside the Cohesion Fund) and €9.1 billion for ICT.

Policy challenges and budgetary resources for a sustainable European Union after 2013

The Commission proposes to allocate €80 billion for the 2014-2020 period for the Common Strategic Framework for Research and Innovation, complemented by support for research and innovation in the Structural Funds. For example, in the period 2007-2013 around €60 billion was spent on research and innovation across Europe's regions and similar levels of spending can be expected in the future.

The Commission proposes to allocate €15.2 billion in the area of education and training and €1.6 billion in the area of culture for the 2014-2020 period. This funding will be complemented by important support for education and training in the Structural Funds. For example, in the period 2007-2013 around €72.5 billion was spent on education and training across Europe's regions and similar levels of spending can be expected in the future.

European Investment Bank, the European Bank for Reconstruction and Development play a role in providing additional financing

We need ambitious measures to deliver a prosperous and sustainable Europe

We need investment in modern and smart energy infrastructure, enhanced energy efficiency, renewable-energy projects in research and development as well as the deployment of new energy technologies