



Financed by the European Commission
through the EC – ASEAN Energy Facility



ASEAN – EU Energy cooperation networking for private sector

Review of European instruments and policies



Bernard MEUNIER
Kick-off meeting, Brussels July 12-13, 2006

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Presentation plan

- Key information on the European Union and its energy situation
- Main orientations of the EU energy policy, key tools for action
- Examples of EU energy strategies:
 - Single energy market
 - Integration of electricity and gas networks
 - Intelligent Energy Program
 - Emission Trading System
- Results and limits of present EU energy policy,
- Lessons for the development of other regional energy schemes



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Objectives

- 1 – To summarize the EU energy policy with its strong and weak points
- 2 – To draw lessons to strengthen the cooperation between private and public actors from ASEAN and EU regions



Key information on the European Union

- 25 countries
- Population: 455 millions
- Density: 116 inhab./km²
- GNP: 9 610 billions euros
(N°1 in the world, in purchasing power parity)
- GNP / inhabitant: 21,100 euros



Key information on the European Union



Organization of the European Union

The functioning of the European Union is supported by five institutions:

- The European Parliament (732 members)
- The Council of the European Union (Head of states)
- The Council of Ministers (25 members)
- The European Commission (25 members)
- The European Court of Justice (incorporating the Court of First Instance) (25 judges (& 25 judges of CFI))
- The European Court of Auditors (25 members)

Organization of the European Union (cont.)

The functioning of the European Union is complemented by:

Two financial institutions :

- European Central Bank (which alongside the national Central Banks, composes the European System of Central Banks)
- European Investment Bank (including the European Investment Fund)

And two advisory committees to the institutions:

- Committee of the Regions, advising on regional issues
- Economic and Social Committee, advising on economic and social matters

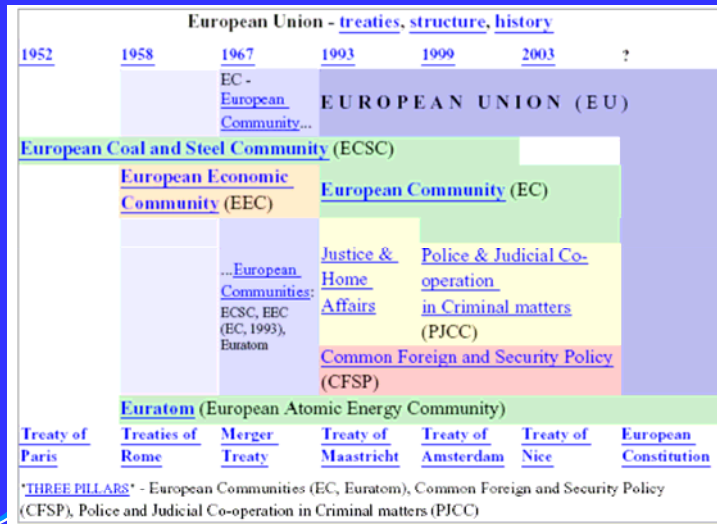


The European Commission

- Executes the decisions taken by the Council of Ministers,
- Has its own regulatory power, entrusted by the Council: each year the Commission adopts a large number of directives and regulations which have to be followed by governments and economic actors,
- Prepares the laws and budgets, has the monopoly of proposal and manages the community funds,
- Is garant of treatates,
- Negotiates the association and trade agreements with third countries.
- EC budget was **121 billions € for 2006**, of which 51 billions € for agriculture, 44 billions € for structural operations and 5,5 for external action (not including assistance for ACP countries)



Evolution of the European Union



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The EU energy strategy



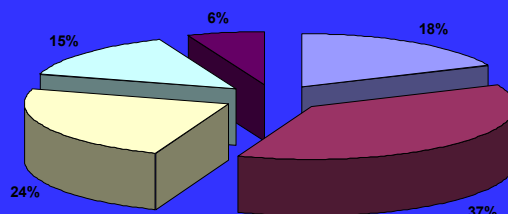
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Key information on EU energy situation

- Installed capacity: 900,000 MW
- Energy consumption: 1,725 Mtoe
- 50% of energy imported from outside EU

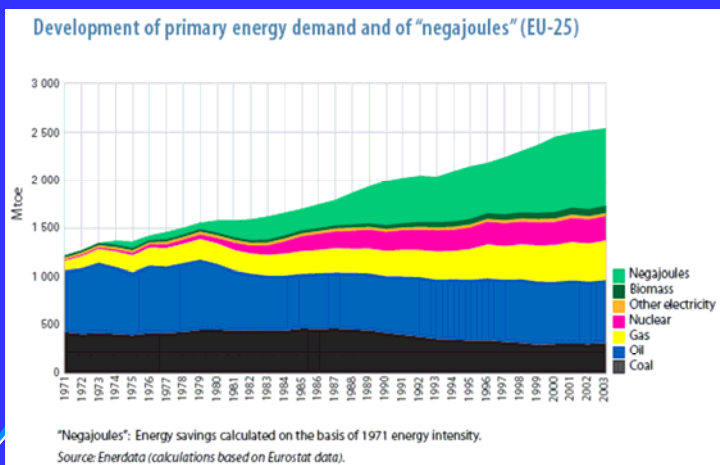


■ Solid fuel
 ■ Oil
 ■ Natural Gas
 ■ Nuclear
 ■ Renewable

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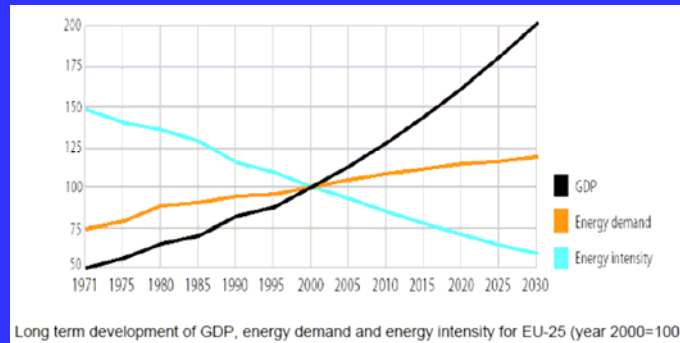
Evolution of EU-25 primary energy demand 1971-2003 : energy conservation, a key component



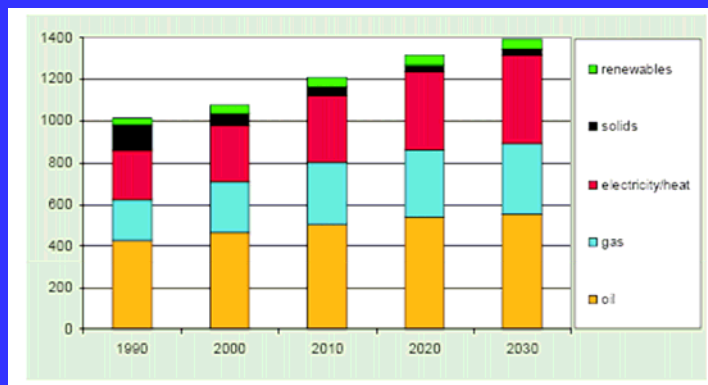
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Evolution of EU-25 GDP, Energy Demand and Energy Intensity



Trend scenario for EU 25 final energy demand over 1990-2030

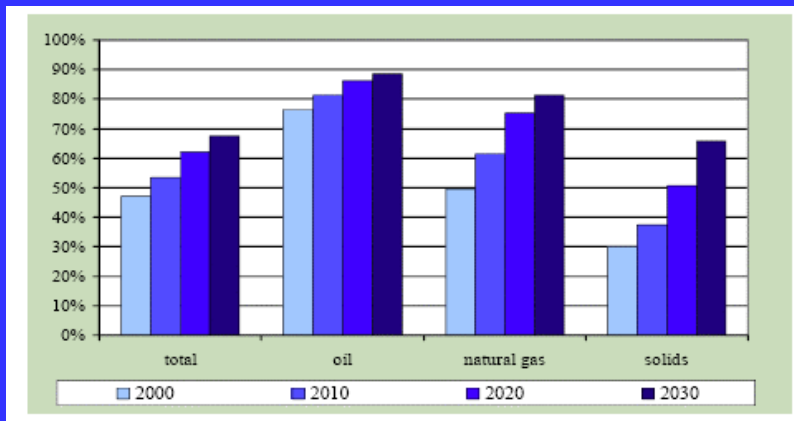


Overview of energy situation for EU

- The external dependence for energy of the EU is constantly increasing, it will reach 70% by 2030 if no measures are taken:
 - 45% of oil comes from Middle East and 40% of natural gas from Russia
 - EU economy strongly dependent of world energy prices, new large importers like the USA, China and India will increase pressure on the market
- > EU is developing a strategy of security of energy supply aimed at reducing the risks linked to this external dependence.



Energy dependency in EU-25 is 50% and will reach 70% by 2030





LOOKING BACK

Context



- ECSC, EURATOM → **energy motors of European integration**
- 1973 oil crisis → **Member States pursue national energy goals**
- July 2003 → **draft Constitutional Treaty proposes energy article**
- July 2005 → **G8 summit gives new priority to energy**
- October 2005 → **Heads of State & Government call for common energy policy**
- December 2005 → **Heads of State & Government call for "integrated approach" to energy**



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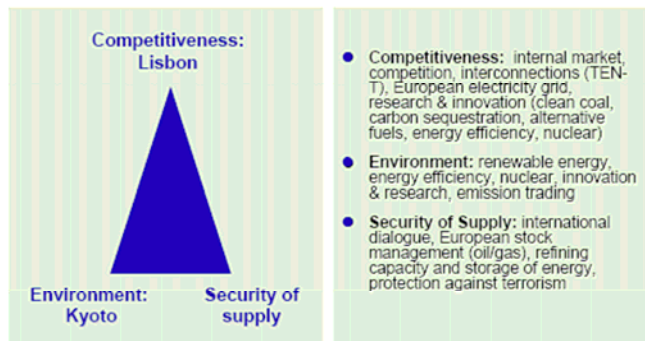
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COMMON ENERGY POLICY GOALS

Current position



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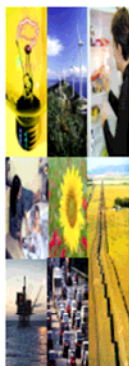
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GREEN PAPER: PRIORITY AREAS FOR POSSIBLE COMMON ACTION

Green Paper



- Internal market → **towards a fully competitive internal energy market**
- Internal energy supply policy → **solidarity among Member States**
- Energy mix → **diverse, efficient & sustainable**
- Environment → **integrated approach to tackling climate change: energy efficiency, renewable & low carbon energy production**
- Energy technology & innovation → **strategic approach**
- External relations → **coherent external energy policy**

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Strategic challenges facing the Union:

- « to ensure security of the energy supply through managing the growing external dependence of the Union in this sector;
- to facilitate closer integration of the Community energy markets, so as to improve the competitiveness of European industry, without in any way neglecting the safety, quality and durability of energy equipment, or public service objectives;
- to implement an energy policy compatible with sustainable development objectives, particularly through more rational use of energy and the development of renewable sources;
- to promote research and technological development in the energy sector ».

--> **A constraint**, the EU 2003 Treaty of Nice does not set out any legal basis for Community actions in the energy sector



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Implementing the EU energy policy two key tools: the Directives and the Programmes

- Main energy directives
- Key programmes



SECURITY OF ENERGY SUPPLY



Minimum stocks of crude oil and/or petroleum products

Background	<ul style="list-style-type: none"> Imported crude oil and petroleum products are accounting for a growing share of the European Union's energy supplies. Any difficulty could reduce supplies of these products from non-EU countries and seriously disturb economic activity. The objective of the Directive is to ensure minimum stocks of crude oil and/or petroleum products in each Member State in order to improve security of energy supplies in the EU.
Act	Council Directive 68/414/EEC of 20 December 1968 + Amendments
Summary	<ul style="list-style-type: none"> The Member States are required to maintain at all times, within the territory of the EU, stocks of petroleum products at a level corresponding to at least 90 days' average daily internal consumption in the preceding calendar year.
Observations	There is a derogation for Member States with their own petroleum production.



Security of supply of natural gas

Background	<ul style="list-style-type: none"> Natural gas is becoming an increasingly important source of energy. In the new internal gas market, there will no longer be a single player guaranteeing security of supply. Consequently, responsibility for this task cannot be entrusted solely to the industry, which is itself dependent on its external supplies.
Act	Council Directive 2004/67/EC of 26 April 2004 + related acts
Summary	<p>The Gas Directive (2003/55/EC) recognises the right of Member States to regard security of supply as a public service obligation. However, various obstacles to competition still need to be overcome. This new Directive establishes a common framework within which Member States can define general security-of-supply policies that are transparent, solidarity-based, nondiscriminatory and consistent with the requirements of a single market in gas.</p>
Observations	Issues are: access to network and tariff for transit, monitoring of production and imports, difficulties for new entrants, ...



Electricity supply and infrastructure investment

Background	The European Union (EU) is on the point of creating the largest competitive market for electricity and gas in the world. However, in order to function, an integrated electricity market requires significant investment in transmission networks.
Act	Proposal COM(2003) 740 for a Directive of the European Parliament and of the Council on electricity infrastructure and security of supply■
Summary	The proposed Directive establishes measures aimed at ensuring the proper functioning of the EU internal market for electricity by safeguarding security of electricity supply and by ensuring an adequate level of interconnection between Member States to ensure competition at European and national level. A special focus is placed on network investment, specific roles of regulators and information exchange on supply-demand strategies
Observations	The proposal has been followed by regulations and directives



INTERNAL MARKET IN ENERGY



Common energy policy: investment projects

Background	The aim of the Regulation is to provide the Commission with accurate information on any intended energy investment project of Community interest and to enable it thus to have an overall view of planned changes in capacity and equipment in the energy sector within the Community.
Act	Council Regulation (EC) No 736/96 of 22 April 1996 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors
Summary	Before 15 April of each year Member States shall provide the Commission with information concerning investment projects relating to the production, transport, storage, and distribution of oil, gas or electricity three years before the intended date of commencement of the work; the period is five years in the case the electricity sector's projects.
Observations	Information required: Name of company, aim & nature of investment, intended capacity, date of placing into service, raw materials used, date of decommissioning and related capacity/power



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Common rules for the Internal market in Electricity

Background	In response to the call by the Lisbon European Council, this Directive proposes a series of measures to open up the electricity market completely to the benefit of consumers.
Act	Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC
Summary	This Directive establishes common rules for the generation, transmission and distribution of electricity. It lays down the rules relating to the organisation and functioning of the electricity sector, access to the market, the criteria and procedures applicable to calls for tenders and the granting of authorisations and the operation of systems.
Observations	Main points addressed: public services obligations and consumer protection, tendering for new capacity, designation of system operators, unbundling of accounts, full market opening by July 2007, reciprocity and reporting



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Common rules for the Internal market in Natural Gas

Background	To gradually open up national gas markets to competition and improve security of supply and industrial competitiveness.
Act	Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 + several complements
Summary	The Directive establishes common rules on the storage, transmission, supply and distribution of natural gas. It lays down detailed rules on the organisation and functioning of the natural gas sector, including liquefied natural gas (LNG), biogas and gas from biomass and other types of gas. The new Directive also regulates market access, the criteria and procedures that apply to the granting of licences for the transmission, storage, distribution and supply of natural gas, and the operation of systems
Observations	Main articles relate to : public service obligations and consumer protection, authorisation procedure, monitoring security of supply, technical rules, operators' tasks, unbundling of transmission and distribution system operators, unbundling of accounts and transparency, organisation of access to the system



Access to the network for cross-border exchanges in electricity

Background	The Regulation lays down fair rules for cross-border exchanges in electricity, thus enhancing competition within the internal market in electricity while taking into account the specificities of national and regional markets. The aim is to promote cross-border trade in electricity, by laying down basic rules regarding access to networks for cross-border transactions.
Act	Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003
Summary	The purpose of the Regulation is to stimulate cross-border exchanges in electricity by establishing a compensation mechanism for transit flows of electricity and by introducing harmonised principles on cross-border transmission charges and the allocation of available interconnection capacities between national transmission systems.
Observations	Charges applied by network-operators for access to networks are transparent and take into account the need for network security and reflect actual costs incurred.



ENERGY EFFICIENCY



The EU energy efficiency « package »

- **General scheme**
 - Green Paper on energy efficiency
 - Competitiveness and Innovation Framework Programme (2007-2013)
 - New framework programme "Intelligent Energy for Europe" (2003-2006)
 - Energy efficiency: SAVE II programme (1998-2002)
 - Towards a strategy for the rational use of energy Action plan
- **Energy efficiency legislation**
 - Promotion of end-use efficiency & energy services
 - Cogeneration
 - Energy performance of buildings
- **Efficiency in energy using products**
 - Eco-design for energy-using appliances
 - Household appliances: energy consumption labelling
 - Office appliances: Energy Star programme
 - Ballasts for fluorescent lighting
 - Energy efficiency for refrigerators
 - Energy efficiency for hot-water boilers



Energy efficiency in Transport

The European Union is working toward the definition and implementation of a strategy to promote sustainable mobility in an urban context which would include a range of actions such as:

- - promoting market take-up of lower-consumption vehicles and new propulsion technologies to reduce emissions
- - promoting the use of improved collective and non-motorised modes in conjunction with mobility management schemes
- - demand management schemes such as parking controls and access restrictions
- - information systems for better traffic management and improving traffic flow
- - integrated intermodal freight and passenger transport systems such as city logistics and improved terminals
- - fair and efficient pricing regimes
- - supporting integrated land-use and urban transport planning to minimise the need to travel and facilitate collective transport
- - promoting efficient public transport modes to people with reduced mobility
- - supporting and promoting cycling
- - Possible contribution of Teleworking

The European Commission is also active in promoting long distance rail-road or sea-road freight transport to avoid congestion of European roads



Energy efficiency: energy performance of buildings

Background	Energy consumption for buildings-related services accounts for approximately one third of total EU energy consumption. The Commission considers that, with initiatives in this area, significant energy savings can be achieved, thus helping to attain objectives on climate change and security of supply. Community-level measures must be framed in order to deal with such Community-level challenges. This Directive is a follow-up to the measures on boilers (92/42/EEC), construction products (89/106/EEC) and SAVE programme provisions on buildings.
Act	Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings
Summary	The directive provides: a common methodology for calculating the integrated energy performance of buildings; minimum standards for new or renovated buildings, systems for energy certification, inspection of boilers and central air-conditioning systems.
Observations	This directive has been complemented on specific topics





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« Intelligent Energy – Europe » Programme

- "Intelligent Energy-Europe" is a key mean to convert EU policy for smart energy use and more renewables into action on the ground, addressing today's energy challenges and promoting business opportunities and new technologies.
- IEE supports European projects, one-off events and the setting up of local/regional energy agencies with a total budget of 250 million euros, covering up to 50% of the costs.
- The programme currently supports more than 200 international projects, 30+ local/regional energy management agencies, and almost 40 European events in the areas of :
 - new and renewable energy sources
 - energy efficiency, notably in buildings and industry,
 - energy aspects of transport
 - co-operation with developing countries



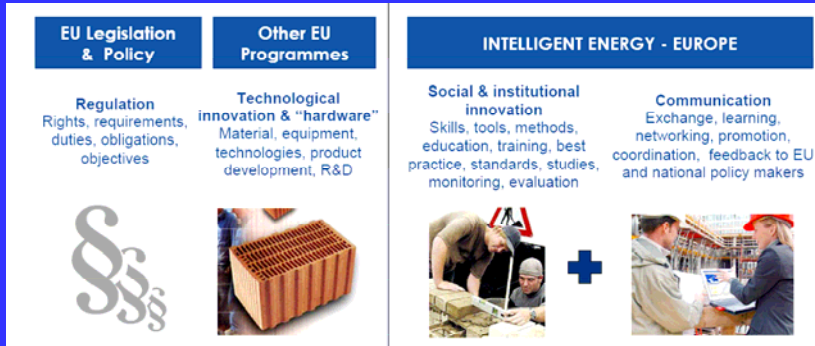
Since 2005, the programme is implemented by the new Intelligent Energy Executive Agency (IEEA).



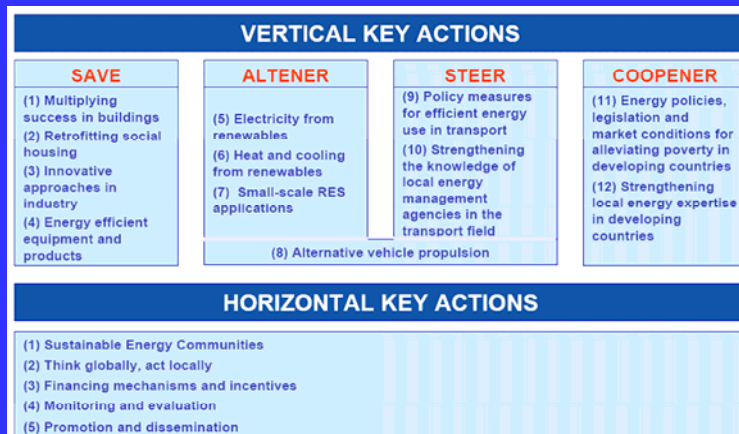
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« Intelligent Energy – Europe » Complementary actions and programs



Intelligent Energy-Europe

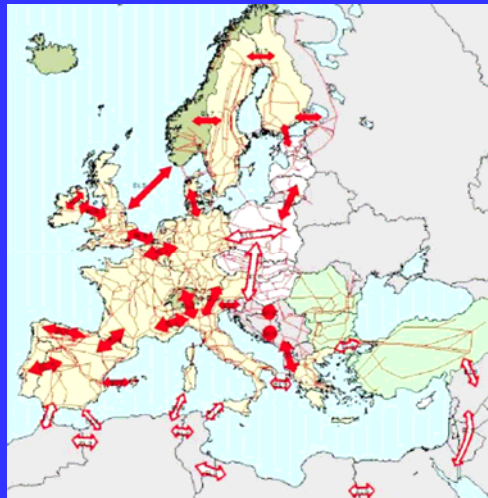


Trans-European Networks « TEN-E »

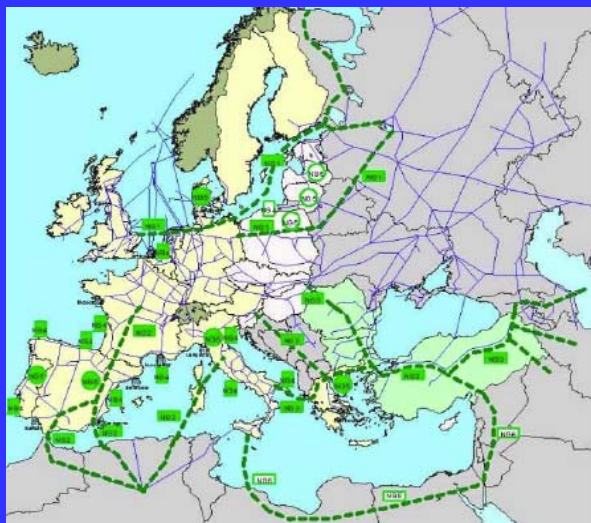
- The European Union finances electricity and gas transmission infrastructure projects of European interest. A yearly budget of about 25 Million Euros is spent mainly for supporting feasibility studies. Most of the projects cross national borders or have an influence on several EU Member States.
- The **guidelines** on Trans European Energy Networks specify which projects are eligible for funding. The **financial rules** specify the financial procedures involved.
- The **call for applications for funding** is open in the first quarter of each year. Applications are made by promoters of eligible projects, like electricity and gas transmission companies, investors in LNG facilities and gas storages. Projects need to be supported by the Member States involved.
- The Trans European Energy Networks are integral to the European Union's overall energy policy objectives, increasing competitiveness in the **electricity** and **gas** markets, reinforcing security of supply, and protecting the environment.



Trans-European network : priorities for electricity



Trans-European network : priorities for natural gas



Estimated investment for EU TEN priority axes up to 2013

PRIORITY AXIS	ADDITIONAL CAPACITY (MW/ETO THE EU)	INVESTMENT INSIDE THE EU	INVESTMENT OUTSIDE THE EU
EL 1 Pt. Ba. No. DE	2500	300	-
EL 2 Borden Italy	4500	500	-
EL 3 Pt. Es. Po	3000	400	-
EL 4 Gr. Balkans - UCTE	2000	100	300
EL 5 UK - Continental Euro	2000	1100	100
EL 6 Ir. UK	500	300	-
EL 7 Baltic Ring	3000	700	100
EL 8 Central Europe	3000	500	-
EL 9 Mediterranean Ring	3000	1300	500
TOTAL PRIORITY PROJECTS EL	23400	6000	1000
	Mega Watts	Millions Euro	Millions Euro
NG 1 Russia - No. DE - UK	10	4500	1500
NG 2 Algeria - Eu	20	4500	1500
NG 3 Casp. Med. Eu	10	1500	1500
NG 4 Tarmasir LNG	20	2500	-
NG 5 Underground stock	-	2000	-
NG 6 East Med. Ring	10	1500	2500
TOTAL PRIORITY PROJECTS NG	70	15000	7000
	Billions m3/year	Millions Euro	Millions Euro
PE 1 Russia - Eu		500	1500
PE 2 Black Sea - Eu		200	1500
PE 3 Oil pipelines inside Eu		1000	-
PE 4 Africa/Med. East - Eu		1000	2000
PE 5 Oil Ports		2000	1000
TOTAL PRIORITY PROJECTS PE		6000	6000
	Millions tonnes/year	Millions Euro	Millions Euro
OVERALL TOTAL		26000	14000
		Millions Euro	Millions Euro

Source: Estimates of the European Commission

Scenario (DG TREN 2002)

- Electricity :
6 billions €
- Natural gas:
22 billions €
- Oil pipelines:
12 billions €

EU Environment Policy

Four priority areas:

- Climate change
- Protecting nature and biodiversity
- Health and quality of life
- Managing natural resources and tackling waste



The Sixth environment action programme 2001-2010

Seven key areas:

- Air pollution
- Waste recycling
- Management of resources
- Soil protection
- Urban environment
- Sustainable use of pesticides
- Marine environment



New approaches for EC environment programmes

- Legislation
- Partnership and joint action
- Voluntary agreements with industry
- Involvement of local communities
- Framework approaches focused on realistic objectives
- Sharing best practices



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EU Action against Climate Change



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The EU emissions trading scheme

- The ETS is the most cost-effective way to meet Kyoto obligations and move towards a low carbon economy of the future (3.3 billions € per year instead of 6.8 billions). Established through a binding EU legislation.
- Based on six fundamental principles:
 1. It is a cap-and-trade system
 2. Its initial focus is on CO₂ of big industrial emitters
 3. Implementation in phases with evaluation and adjustment
 4. Allocation plans for emission allowances revised periodically
 5. Strong compliance framework
 6. Linked with third countries through the Clean Development Mechanism (Kyoto protocol)

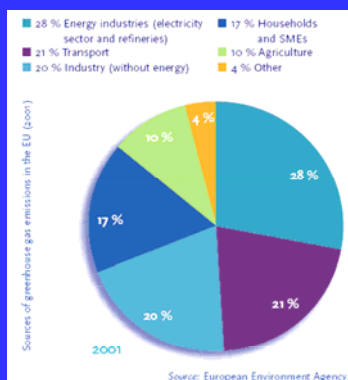


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EU emissions trading scheme (cont.)



- 11,500 installations
- 45% of EU total CO₂ emissions
- 30% of overall Green House Gas



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Some Conclusions



Results and limits of present EU energy policy

KEY RESULTS

- The EU has succeeded in decoupling GNP growth and energy consumption
- A step by step approach of the EC, combining long term planning, information, regulation, demonstration and evaluation has resulted in a growing energy integration and consensus on priorities
- Climate change challenges have been integrated in the EU energy policy; EU has a leading role in the Kyoto process, its ETS is a world success
- EC has also a leading role in identifying common EU energy issues and developing joint solutions based on subsidiarity
- The EC energy programs and regulations are involving systematically a large range of stakeholders right from early stages
- Transparency of information and decisions has been thoroughly introduced



Results and limits of present EU energy policy

KEY RESULTS (Cont.)

- A powerful EC e-information system facilitates information and participation of a wide range of stakeholders while saving bureaucratic tasks
- The key EU institutional actors (Parliament, Council, Commission, EIB) are now playing together in a complementary way for the formulation and implementation of EU energy policy
- EC action, in addition to studies and preparation of decisions, is giving high importance to practical approaches based on concertation, « learning by doing » and dissemination of best practices .
- EC energy actors, at all levels, are strongly encouraged in joint multinational work through committees, joint projects, EU events and conferences, hundred of networks have been set up to address technical, economic or environmental energy issues
- Private-public partnership has been widely developed through EC programmes, cofinancing 50-50 has become the rule for most actions
- TransEuropean Energy Networks have developed significantly thanks to feasibility studies and relevant directives and regulations.



Results and limits of present EU energy policy

SOME CONSTRAINTS

- The European Commission has still limited powers regarding the energy policies of EU member countries, the governments having restricted EC initiative
- As a consequence, in front of possible critical world energy situations, EU is still weak despite significant progresses
- Progress for establishing a common EU energy policy is slow despite significant EC achievements
- The liberalisation of the energy sector has not yet proven its full benefits and discussions are still existing on its long term benefits
- The EC means for implementing an EU energy policy are modest in front of the energy investment to be carried out in the next 10 years, nevertheless it had a major impact in developing a joint energy policy
- The EC policy on energy conservation is well designed but lacks from political will and resources to accelerate its implementation



Lessons for the development of other regional energy schemes

- ASEAN countries are facing similarities with the EU energy situation and institutional issues: large differences between countries, reticences of some governments to address regional energy problems through multinational approach, low institutional power of ASEAN organizations, serious energy challenges regarding imports of energy, delays in implementing regional energy networks, restrictions to private investment and liberalization, ...
- EC progressive approach for building a common energy policy is an example. EC had initially very limited power and resources to develop an energy policy
- Progress can be achieved by focusing initially on pragmatic limited joint ASEAN objectives, building stone by stone an overall approach.
- ASEAN organizations have to prepare « visions » on the regional energy outlook and demonstrate by practical results the benefits of a joint action. « Marketing » of ideas and joint initiatives among decision makers and the civil society is critical.
- An early involvement of public and private stakeholders in the design of sectoral policies and regulations is a very effective way to achieve endorsement and practical solutions
- Transparency of information and its large e-dissemination are priority steps to build confidence and ensure active participation.
- Limited regional budgets can have a major impact for the design of long term energy policies and demonstration of effective solutions for energy conservation, climate change fight, validation of liberalisation schemes, dissemination of best practices, ...



Thank you

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