Some Current EU Directives

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Contents

• Making decisions in the EU
• Some directives
  – CHP
  – Emission Trading
  – (Waste Incineration)
  – (RES-E)
• Wrapping up
Making decisions in the EU 1(8)

- European Commission
  - Monopoly to propose legislation to Parliament and the Council
  - Implementing EU policies and the budget
  - Enforcing European law
- Infringement procedure
  - Representing the EU on the international stage
  - 30 commissioners (1.11.2004: 25)
  - Directorate-Generals (DGs) and services (e.g. legal)
  - 24 000 civil servants
Making decisions in the EU 2(8)

- The Council of the European Union
  - The Council is the EU's main decision-making body
  - Responsible for passing the European law (in many fields jointly with the European Parliament (EP))
  - Co-ordinating the economic policies of the member states
  - Officially signing of international agreements
  - Approving the EU budget (together with the EP)
  - Common Foreign and Security policy (CFSP)
  - Justice and Home Affairs
Making decisions in the EU 3(8)

- The Council of the European Union
  - Decisions in the Council are taken by vote (1.11.2004-):
    - Germany, France, Italy and the United Kingdom 29
    - Spain and Poland 27
    - Netherlands 13
    - Belgium, Czech Republic, Greece, Hungary and Portugal 12
    - Austria and Sweden 10
    - Denmark, Ireland, Lithuania, Slovakia and Finland 7
    - Cyprus, Estonia, Latvia, Luxembourg and Slovenia 4
    - Malta 3
    - TOTAL 321
Making decisions in the EU 4(8)

- The Council of the European Union
  - Denmark, Finland and Sweden have altogether 24 votes (7.5%)
  - The most common voting procedure is majority voting
    - Majority of member states (in some cases some cases 2/3) and 72.3% of the total (=232 votes)
  - Unanimous decisions are required for e.g.
    - CFSP
    - Taxation
    - Asylum and integration policy
Making decisions in the EU 5(8)

- The European Parliament
  - The members of the European Parliament (MEPs) sit not in national blocks but in Europe-wide political groups
  - The power to legislate (co-decision with the Council)
  - Democratic supervision over the European institutions
  - Approving the EU budget (together with the Council)
  - Preparing for the plenary session in the various committees
  - Denmark, Finland and Sweden have altogether 47 votes (6,4%)
Making decisions in the EU 7(8)

- The Court of Justice
  - The preliminary ruling
    - The EU law must be interpreted in a same way in different countries
  - Proceedings for failure to fulfil an obligation
  - Proceedings for annulment
    - If the law in question was not correctly adopted or is not correctly based on the Treaties, it may declare the law null and void.
  - Proceedings for failure to act

=> Case law
Making decisions in the EU 8(8)

• The future
  – The EU based legislation concerning energy and environment is increasing
  – The European Constitution proposal
    • The Union shall have shared competence with the member states on energy issues
    • Co-decision procedure
    • Majority voting
  – Energy and Environmental Taxes
    • From unanimous decisions => Majority voting?
Making decisions in the EU 6 (8)
Number of seats by country

<table>
<thead>
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<td><strong>TOTAL</strong></td>
<td><strong>626</strong></td>
<td><strong>732</strong></td>
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</table>
CHP Directive 1(6)

• Policy wishes in Europe for CHP
  – IPPC Directive 1996 – CHP is BAT technology
  – CHP Strategy 1997 – 18 % target
  – Action Plan on energy efficiency 2000 – 18 % target reaffirmed
  – Directive on the incineration of waste 2000 – the potential of CHP must be evaluated
  – LCP Directive 2001 – all new combustion plants should be considered for CHP
  – Directive on the Energy Performance of Buildings 2002 – new buildings (>1000 m³) should be considered for CHP
CHP Directive 2(6)

- Targets
  - To promote CHP
  - To save primary energy
  - To reduce emissions, in particular of greenhouse gases
  - To assist reaching Kyoto protocol obligations
  - To improve the security of energy supply in Europe
  - To improve the competitive situation of EU member states
  - To harmonise the basis of CHP support schemes in EU member states
  - To ensure the origin of high-efficiency CHP electricity
CHP Directive 3(6)

- Contents
  - Definitions
    - CHP electricity – annual overall efficiency 75/80 %
  - Efficiency criteria for CHP
    - Primary energy savings min. 10/0 %, alternative
    - Harmonised reference values???
  - Guarantee of origin for CHP electricity – on request
  - Analysis of national potentials
  - Fair conditions for grid access
  - Support schemes
  - Alternative possibilities to calculate PES
  - Committee to assist the Commission
CHP Directive 4(6)

- Implementation in member states
  - Establish the necessary legal basis for implementation
  - Establish a system for guarantee of origin
  - Consider the support mechanisms
  - Report statistics annually
  - Regular reporting on development
  - Initiate the analysis of potential
    - Identify heating and cooling demands
    - Feasible potential for CHP
    - Fuel availability, technologies e.g. micro CHP
    - Identify national barriers
Instruments

- Guarantee of origin as a market tool for a producer
- National analyses of potential
  - Member states have to prepare well documented analyses
  - Identified potentials will immediately call for action
- Safeguard for fair and reasonable conditions
  - Grid access
  - Administrative procedures
- Monitoring of development and taking new initiatives
The future
- The Directive provides a framework for future CHP and introduces some instruments
- The work of the Committee will be very important
- Issues to be solved
  - Determination of CHP
    - CEN/CENELEC Manual gives a good starting basis for future work
  - Comparing CHP to separate production
    - Must be fair, based on empirical data and find the balance between accuracy and simplicity (=mission impossible!)
- National potentials
- Promoting CHP and exploiting the national potentials in practise
ET Directive 1(13)

- Background for climate policy and the ET Directive
  - Strengthening of greenhouse phenomenon is a scientific and political fact and the connection with human activity is indisputable
  - Consequences are most likely world wide and serious
  - To reduce greenhouse gases will be one of the pivotal changes in the operating environment
  - The obligations of Kyoto are just the modest first signs of the change
  - The climate policy has become a part of trade policy and perhaps of global policy

ET Directive 2(13)

- **Definitions (shortened)**
  - **Allowance** means an allowance to emit 1 tonne of CO\textsubscript{2} equivalent during a specified period
  - **Installation** means a stationary technical unit where one or more activities listed in Annex I are carried out and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect in emissions and pollution
  - **Operator** means any person who operates or controls an installation or...to whom decisive economic power over the technical functioning of the installation has been delegated
ET Directive 3(13)

- The principles of the EU emission trading
  - Operators get greenhouse gas emissions permits
    - It’s not possible to operate an installation without it
  - Greenhouse gas emissions permit
    - Obligation to surrender a number of allowances equal to the total emissions from that installation during the preceding calendar year
    - Obligation to monitor, report and verify emissions
  - If an operator doesn’t surrender sufficient allowances, an excess emissions penalty follows
    - 2005 – 2007: 40 € / tCO₂
    - 2008 – 2012: 100 € / tCO₂
    - It doesn’t release the operator from the obligation to surrender a number of allowances equal to the total emissions from that installation during the preceding calendar year
ET Directive 4(13)

- Activities (installations), which are included in
  - Energy activities
    - Combustion installations with a rated thermal input exceeding 20 MW (except hazardous or municipal waste installations)
    - Mineral oil refineries and coke ovens
  - Production and processing of ferrous metals
  - Mineral industry
  - Other activities
    - Note! Pulp and paper industry
ET Directive 5(13)

• Allocation of emission allowances
  – Minimum of 95% free of charge in 2005 to 2007
  – Minimum of 90% free of charge in 2008 to 2012
  – Member states develop national allocation plans (NAPs)
    • NAP is a statement of intent of how many allowances a member state will allocate in total and per installation in the period (and per year)
    • NAP is a public document (transparency)
  – Commission scrutiny
    • Within 3 months after submission
    • Commission can reject the plan in whole or in part
    • Conformity with requirements in the Directive
    • Compatibility with state aid rules
ET Directive 9(13)

- The schedule of implementation
  - The national legislation shall be in force 31.12.2003
    - All member states failed
  - National allocation plans shall be notified to the Commission by 31.3.2004 at latest
    - Only 5 countries notified NAPs in time
    - 10.6.2004: Still 11 countries haven’t delivered their NAP
  - The final decision on allocation shall be taken at least 3 months before 1.1.2005
    - Most of the countries will have difficulties to act in time
  - The 1st period shall commence 1.1.2005
    - That will be the day!
ET Directive 10(13)

• Impacts on energy market
  – Pressure to increase prices of electricity and heat
  – The energy intensive industry will be substantially influenced
  – Competition positions of fuels will strongly change
  – Effects on energy investments
  – Liaison with current and forthcoming measures based on energy and environmental policies (taxes, subsidies)
  – Impact of allocation of allowances (NAPs)
    • Especially the competition positions of different companies
  – Insecurities of implementation
ET Directive 13(13)

- The future
  - The emission trading is probably the most important factor influencing the European energy industry in the future
  - Starting the scheme is slow
  - The real functioning of the emission trading is still a question mark
  - The need to buy allowances will increase district heat and electricity prices
  - The emission trading promotes carbon free energy sources like nuclear, hydro and renewables
  - Liaison with other energy and environmental policy measures need careful consideration
Electricity price in Nordic countries and CO₂ emissions trading

- Variable production costs (€/MWh)
- Indicative price level of electricity with emissions trading
- Indicative current price level of electricity
- Change due to emission allowances

Production capacity (TWh/a)
- Gas turbines
- Oil condensing
- CHP condensing
- Coal condensing
- Nuclear
- Wind
- Import
- Hydro (ave.)

Picture roughly in scale
NAP of Denmark

- Combination of grandfathering (1998-2002) & benchmarking
- Allocation 33.5 Mill. tCO$_2$/y
- 5% auction of allowances
  - Revenues will be used for JI/CDM projects & costs of administering the ET scheme
- Reduction compared to business-as-usual – scenario 2005-2007 is 14.8%
- Energy sector
  - For district heating allowance allocation will correspond to historical emissions (-7%)
  - Electricity production bears the most of the reduction burden (-26%)
    - 1.3 Mill. tCO$_2$ less than current emissions quota of national emission trading scheme
    - Benchmarking is used for electricity production; comparison to natural gas combined cycle plants
- Reservation for new entrants 1.0 Mill. tCO$_2$/y
- No opt in/opt out
NAP of Sweden

- Grandfathering and projections (1998-2001)
- Allocation 22.9 Mill. tCO₂/y
- Reduction compared to business-as-usual –scenario 2005-2007 is 13.9 %
- Energy sector
  - Energy production will get around 80 % of the needed allowances
  - New entrants:
    - Benchmarking
      - Electricity 265 tCO₂/GWh
      - Heat 83 tCO₂/GWh
- Reservation for new entrants 1.8 Mill. tCO₂/y
- Opt in: If the total thermal capacity of DH plants of a DH network is at least 20 MW, all the DH plants of that network belong to the scheme
Draft NAP of Finland

- Allocation 45.5 Mill. tCO$_2$/y
- Reduction compared to business-as-usual –scenario 2005-2007 is 2.5 %
- Energy sector
  - For district heating allowance allocation will correspond to historical emissions
    - Temperature correction
    - DH network: Customer heat load correction
  - Condensing power production bears the most of the reduction burden
  - New entrants:
    - DH base/Peak load 6000/500 h
    - Condensing power 6000 h
    - Specific emission coefficient
      - Liquid/gas 100% gas
      - Solid 70% peat / 30% wood

- Reservation for new entrants 0.8 Mill. tCO$_2$/y
- Opt in: All the DH plants belong to the scheme, if one of the plants of the same DH network belongs to the ET scheme and produces mainly DH
# Heat market and emission trading

<table>
<thead>
<tr>
<th>Electric heating</th>
<th>Individual boiler heating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult to estimate the increase of electricity price, but we know the direction</td>
<td>Other measures?</td>
</tr>
<tr>
<td>Probably weakens the position of electric heating</td>
<td>Increase of taxation of oil?</td>
</tr>
<tr>
<td></td>
<td>The change in wood fuel price? Subsidies still needed?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>District heating</th>
<th>Heat pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers will pay the cost of buying allowances, magnitude depends on fuels and NAPs</td>
<td>From the emission trading point of view a form of electric heating, with lower market risks</td>
</tr>
<tr>
<td>How to set price for new customers?</td>
<td></td>
</tr>
</tbody>
</table>
Waste Incineration Directive

- **Scope**
  - Incineration and co-incineration plants
  - Excluded ...(iii) wastes of pulp and paper industry, if it is co-incinerated and the heat generated is recovered

  => Tens of millions of Euros annual savings for Nordic pulp and paper industry

- **A lot of technical details…not handled here!**

- **Impact on energy incl. DH production**
  - Co-incineration becomes uneconomical in most of the combustion plants
    - Treatment of process gas from gasification plant still open?
  - Waste incineration plants decrease the CHP electricity potential
RES-E Directive

• Contents
  – Definitions
  – National indicative targets for Member States
    
    | RES-E % 1997 | RES-E % 2010 |
    |-------------|-------------|
    |            |             |
    | Denmark     | 8,7         | 29,0        |
    | Finland     | 24,7        | 31,5        |
    | Sweden      | 49,1        | 60,0        |
    | EU          | 13,9        | 22,0        |

  – Support schemes, Guarantee of origin, Administrative procedures, Grid access

=> Liaison with the emission trading?
Conclusions

- EU legislation based regulation is increasing rapidly
- Especially environmental questions become more and more important...
  - Prevention of Climate Change (ECCP)
    - CHP -Directive (in force)
    - RES-E -Directive (in force)
    - Energy End-use Efficiency & Energy Services –Directive (proposal)
    - RES-H –Directive (planned)
    - Etc.
  - Other environmental norms
    - IPPC –Directive
    - LCP –Directive
    - Waste Incineration -Directive
    - Etc.
Thank you for your attention!