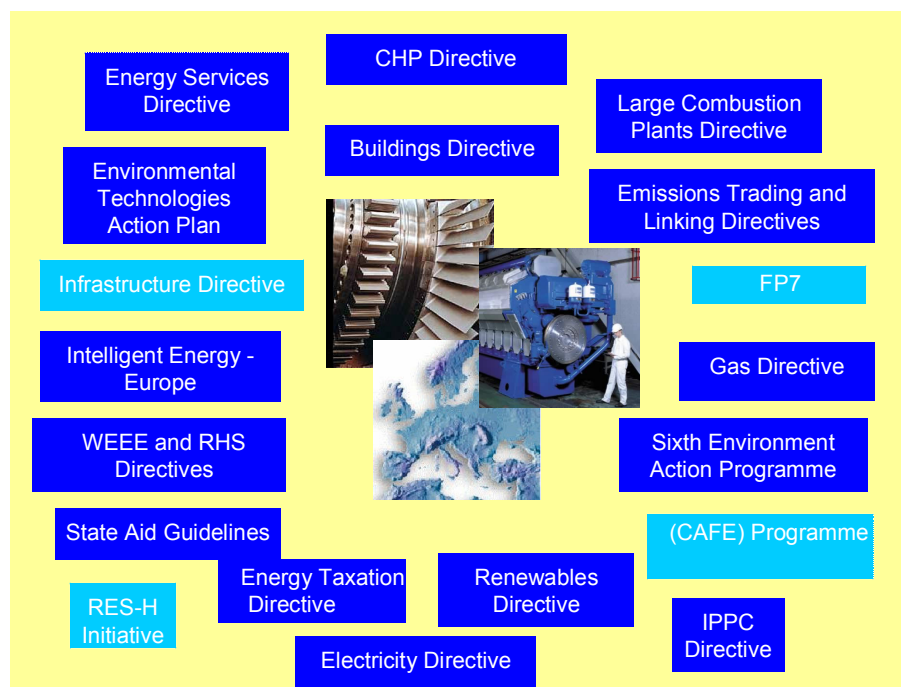


European Policy and Legislation affecting Industrial Polygeneration



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European legislation and policies are playing an increasingly important role in defining the framework conditions for the current use of co/polygeneration in Europe and in shaping its future markets. However, there is considerable lack of knowledge about the relevant provisions, and the unprecedented level of EU-level legislative activity in the energy, environment and other areas observed in recent years and months has left equipment suppliers, project developers, investors, operators, or end-users of co/polygeneration in considerable confusion.

This report aims to provide a clearer picture by summarising the most important pieces of European legislation and by outlining how they affect co/polygeneration. We hope that the briefing finds a wide readership and that it helps

- equipment suppliers and plant operators to get a snapshot of the regulatory framework affecting their business,
- project developers and investors to make more informed decisions,
- national cogeneration associations to check whether their governments are implementing EU legislation correctly, making full use of opportunities to promote cogeneration for a more sustainable energy future.

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Comments, corrections and updates are invited and should be forwarded to COGEN Europe, info@cogeneurope.eu, Tel: +32 2 772 82 90 or Fax: +32 2 772 50 44

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INTRODUCTION

Important EU Institutions

The European Commission plays a major role in the European Union's policy-making process. It initiates proposals for legislation, ensures that EU law is applied properly by the Member States, manages the Union's annual budget, and executes EU policies and international trade relations. The Commission is the only institution, which can propose EU legislation, which is then adopted by the Parliament and the Council. Draft proposals are drawn up by the Commission services, often on the initiative of a Member State. The college of 25 Commissioners then adopts the proposals. The services of the Commission are organised in various Directorates General (DG) and other services.

The Commission has set up the *European Energy and Transport Forum* as a consultative committee composed of high level representatives from a large range of sectors and activities in the fields of energy and transport. It is part of the Commission's initiative to improve European governance. COGEN Europe's Chairman is a full member of the forum.

The 732 Members of the European Parliament (MEPs) are directly elected for the five-year term 2004-2009. They are organised in political groups and not by nationality. Parliament adopts together with the Council legislation proposed by the Commission by means of various procedures. Members spend one week each month at a plenary session in Strasbourg, when Parliament meets in full session, with additional two-day sittings being held in Brussels. Two weeks in every month are set aside for meetings of Parliament's committees in Brussels. The remaining week is devoted to meetings of the political groups. The European Parliament is the only Community institution that meets and debates in public. Parliament reacts to legislative proposals through formal opinions. These are developed in specialist Committees before being voted by the whole Parliament at plenary sessions. One Member of Parliament – the "rapporteur" – does the preparatory work for a Committee on a specific proposal.

The Council is the institution representing Member State governments, and one of the European Union's main decision-making institutions and legislative authorities. Meetings of Heads of State are called the *Council of the European Union*. Meetings at Minister level are referred to as *Council of Ministers*. The subject in question determines which Ministers attend the meetings. Depending on their legal basis, the Council decided on proposals either by unanimity or by qualified majority or by simple majority. The Committee of Permanent Representatives (COREPER), which brings together the Member States' ambassadors to the Community, prepares Council meetings and is involved in the decision-making procedure.

EU Legislative Procedures

The normal legislative procedure is Co-decision. This procedure puts the European Parliament and the Council on an equal footing. Together they adopt legislation proposed by the Commission. Parliament has to give its final agreement. The Co-decision procedure provides for two successive readings, by Parliament and the Council of Ministers, of a Commission proposal. In response to the "opinion" of the Parliament, Council adopts its "Common Position", which contains the Council's own changes to the proposal. If the two cannot agree a common legislative text a "conciliation committee" is composed of Council and Parliament representatives with participation of the Commission in order to reach an agreement. The agreement from this committee is then submitted to Parliament and the Council for a third reading with a view to its final adoption.

Under the Consultation procedure, applied e.g. in taxation matters, Council adopts proposed legislation by simple or qualified majority. Only one reading in Parliament is required, and the Council is not obliged to take the opinion of the Parliament into account.

Binding EU Legislation

Regulations are directly applicable and binding in all EU Member States without the need for any national implementing legislation.

Directives stipulate the objectives to be achieved within a certain time limit, but leave the national authorities the choice of form and means to be used. Directives have to be implemented in national legislation in accordance with the procedures of the individual Member States.

Decisions do not require national implementing legislation and they are binding in all their aspects for those to whom they are addressed. A decision may be addressed to any or all Member States, to enterprises or to individuals.

Non-Binding Measures and Policy Documents

Communications usually set out a Commission action plan, which may include proposals for legislation.

Recommendations and opinions are not binding.

With Green Papers, the Commission presents initial policy considerations and ideas, opening the debate to interested parties who may wish to comment.

In White Papers, the Commission communicates a decided policy or approach on a particular issue. While some discussion still may occur, they are primarily intended to prepare the development of concrete measures.

Important websites on EU law

EUR-Lex is the portal to European Union law. It provides all legislative documents in the different official languages (<http://europa.eu.int/eur-lex/lex>).

PreLex follows the decision-making process on the different pieces of EU legislation, which are under preparation (<http://europa.eu.int/prelex>).

EU LEGISLATION AND POLICIES IN FORCE

COGENERATION

Cogeneration	
Full Title	Directive 2004/8/EC on the promotion of cogeneration based on a useful heat demand in the internal energy market ("CHP Directive")
Brief Outline	Aims to create a framework for the promotion and development of high-efficiency cogeneration in the internal energy market. The Directive covers all existing and future cogeneration technologies. It introduces methods to calculate "electricity from cogeneration" and to determine the efficiency of installations. The use of alternative calculation methods is accepted until end 2010, subject to certain conditions. To qualify as "high-efficiency", cogeneration installations need to achieve primary energy savings of at least 10% (or less in the case of units of up to 1 MW electrical capacity) compared to separate production of heat and electricity. Electricity generated from high-efficiency cogeneration is eligible for a "guarantee of origin". Support schemes for cogeneration should be based on useful heat demand and primary energy consumption. Member States must apply the provisions of the Electricity Directive and the Renewables Directive concerning connection to, and use of, the electrical network by cogeneration installations. Member States have to evaluate their national potentials for high-efficiency cogeneration and to report on their progress in realising it. They also have to revise administrative procedures in order to facilitate cogeneration projects.
Comments	<p>The Directive sets out the methods to determine high-efficiency cogeneration and it issues hard measures on electrical network issues and administrative procedures related to cogeneration installations. Yet, instead of setting binding targets for the development of cogeneration, the Directive requires Member States only to identify their cogeneration potentials. The Directive does not prescribe whether or how Member States have to support cogeneration, but it specifically provides the framework for support including state aid. It demands that any form of support given is compatible with EU competition law.</p> <p><u>The method to calculate Primary Energy Savings (Annex III):</u></p> <p>The cogenerated production of heat and electricity is compared to the separate production of electricity and heat, based on annual operational data. The comparison is done using reference numbers for separate production of heat and electricity. These numbers form a matrix of reference values per type of fuel and per year of entry into operation. Corrections for grid losses and climate conditions are also factored into the calculation. The Commission Decision of 21 December 2006 establishing harmonised reference values for separate production of electricity and heat in application of Directive 2004/8/EC has been published in the Official Journal of the European Union on 6th February 2007.</p> <p><u>The method to calculate the share of cogenerated electricity (Annex II):</u></p> <p>Annex II lays down the principles for the calculation of the share of cogenerated electricity produced by a cogeneration installation. All of the installation's electricity will qualify as cogenerated electricity, provided the plant has an overall annual efficiency of 75% or 80%, depending on the type of technology.</p> <p>For those plants that do not meet the threshold, Annex II sets the share of cogenerated electricity as the amount of useful heat produced times the power to heat ratio of the plant. Default power to heat ratios are embedded in Annex II. However the latest developments in the Regulatory Committee (See Procedure) indicate that for an installation that does not reach the 75% or 80% overall efficiency thresholds, there are two conditions that will have to be met: the plant as a whole must achieve some primary energy savings (>0%) and the CHP element of the plant must beat the 10% primary energy savings threshold. Calculation of the CHP element is based on the heat output in full CHP mode, which also gives the plant's power to heat ration. If measurements are impossible, then the design data shall be used and in case of lack of sufficient design data (!!) Annex II will be used as fall-back option.</p>
Procedure	<p>The Directive had to be transposed by 21 February 2006 but the text of the Directive left three regulatory areas unresolved:</p> <ul style="list-style-type: none"> (a) specifications for determining what is a cogeneration plant and what are the cogeneration products, (b) the reference cases for comparing cogeneration with separate production, and (c) guidelines on how to undertake a potential study. <p>A Regulatory Committee composed of Member State representatives met for the first time on 11 January 2004 to determine these issues. COGEN Europe has been closely involved in the whole process as an observer. While it was planned to complete this process by mid-2005, as of March 2007 the Committee still hasn't reached a final agreement (vote) on the methodology to be used under Annex II of the Directive.</p> <p>The final vote on the Annex II methodology guidelines will most likely intervene around October 2007, with the Commission issuing the Guidelines document shortly thereafter.</p> <p>The document (C(2006)6817) establishing harmonised reference values for separate heat and electricity</p>



	<p>production, together with the correction factors (grid connection level, temperature corrections) was adopted on 21 December 2006 and published in the Official Journal of the European Union on 6 February 2007.</p>
<p>Impact on co/poly-generation</p>	<p>The importance of the Cogeneration Directive for the co/polygeneration sector is such that the Directive has had a large impact on the sector even before it was adopted or implemented in the Member States.</p> <p>It is therefore necessary to distinguish between 2 distinct phases. The first phase covers the period of legislation drafting and adoption by the European institutions (and includes the Comitology process). The second phase runs from the date of actual implementation in the Member States.</p> <p>Finally, it has to be determined how the Cogeneration Directive has impacted investment flows for polygeneration installations <i>per se</i>.</p> <p><u>Impact during first phase</u></p> <p>The legislative drafting and adoption phase has been a very quiet period for industrial co/polygeneration projects across the EU. This can be attributed to a number of factors, the main being the lack of policy predictability for large co/polygeneration projects due to intense lobbying and key modifications being made to the directive.</p> <p>Given the lead-time necessary for large-scale industrial co/polygeneration projects before the installations can operate, many investment decisions were put on hold. The perception in industry circles was that with the final adoption of the directive and subsequent timely implementation these projects could be relaunched.</p> <p>Unfortunately, further delays in the Comitology process in particular have made a very negative effect on a number of dormant projects, with very few being resumed between 2004 (adoption of Directive) and February 2007 (date of publication of reference values).</p> <p>It should be noted that a major reason for host industries to have delayed their final decision on a number of co/polygeneration projects stems from the fact that while small-scale projects can often rely on equipment based on standardised designs with a high efficiency, large-scale applications require tailor-made solutions that meet the exact requirements of the heat loads and hence do not necessarily opt for those solutions that achieve the highest possible efficiencies. Indeed, flexibility in operational terms can have a great value for co/polygeneration operators. As a result, many existing and projected industrial cogeneration installations have followed the discussions on the harmonised reference values very closely as many installations failed to meet the 75% and 80% thresholds that automatically qualify plants as "high efficiency".</p> <p><u>Impact following implementation (second phase)</u></p> <p>As of the time of writing, most Member States were still in the implementation phase, while those that had completed the process were still awaiting the Article 14 Committee's decision concerning the Annex II methodology to calculate the amount of "cogenerated electricity".</p> <p>While most cogeneration stakeholders had focused during the first phase on the harmonised reference values (as they determine whether the primary energy savings threshold of 10% is achieved or not), it became apparent that for those installations unlikely to achieve the 10% PES target, but benefiting today from lower national threshold and hence from national support, the Annex II calculations on the amount of CHP electricity was of the highest importance.</p> <p>Sector stakeholders expect that once the issue underlying Annex II is settled, this will give market actors full visibility as to how their existing or planned installations will be treated under the Directive.</p> <p>As of yet it is difficult to determine whether the Directive has had a positive influence on investment decisions in European industry. Sector analysts tend to point out that investment decisions are still driven by national circumstances (electricity/gas price ratios, level of support for installations, fiscal policies...) more so than by European legislation. In addition, observers point to the fact that the Directive does not focus on supporting industrial co/polygeneration (if one excepts the weak provisions on grid access and administrative barriers) but rather on preventing non-high efficiency installations from receiving support.</p> <p><u>Impact of polygeneration installations (trigeneration and useful chemical production)</u></p> <p>The Cogeneration Directive focuses solely on the production of electricity and useful heat. Trigeneration of electricity, heat and cold is not addressed directly as the Directive does not distinguish between the production of hot water or steam for direct use (e.g. to heat a building or for an industrial process) and the production of heat for cold generation. Hence, the Cogeneration Directive as it stands today does not use harmonised reference tables for the separate production of cold. This implies that the Directive has a neutral effect on trigeneration applications compared to cogeneration applications. In other words the Directive does not directly influence the recourse to a trigeneration system over separate production using electric chillers.</p> <p>The Cogeneration Directive does not cover the production of chemicals and hence polygeneration installations valuing the stream of chemicals resulting from the combustion process cannot include the production of chemicals in the calculations under Annex II and Annex III. As a result the Cogeneration Directive does not act as a driver for investments in polygeneration installations despite their economic and environmental (and in certain cases public health) desirability. As polygeneration technologies</p>

	mature it would be beneficial to reflect the challenges specific to polygeneration installations in the revisions of the Cogeneration Directive, especially as the useful production of chemicals can have impacts on the optimisation of the combustion process which is the main object of the Cogeneration Directive as it stands at the time of writing.
Website	http://europa.eu.int/comm/energy/demand/legislation/heat_power_en.htm

SPECIFIC SUPPORT POLICIES AND PROGRAMMES

Environmental Technologies Action Plan (ETAP)	
Full Title	Communication from the Commission "Stimulating Technologies for Sustainable Development: An Environmental Technologies Action Plan for the European Union" (COM/2004/38 final)
Brief Outline	Joint initiative from DG Environment and DG Research to improve the development and wider use of environmental technologies within the EU, combine environment and competitiveness, and contribute to the Lisbon targets. Key actions include the launch of technology platforms with stakeholders (a.o. hydrogen and fuel cells); establishing environmental performance targets for products and services; and making the most of funding schemes and public and private procurement policies. ETAP aims to break down the existing barriers to environmental technologies (economic barriers, unclear or too detailed regulations and standards, insufficient research efforts, inadequate availability of risk capital and lack of market demand) through a concerted effort to help maximise the potential of environmental technologies.
Comments	<p>Although cogeneration is not specifically mentioned under environmental technologies, ETAP indirectly contributes to its further promotion through:</p> <ul style="list-style-type: none"> • funds and research to further improve the cogeneration process; improving the market conditions in a liberalised energy market; • addressing and dealing with barriers; • promoting cogeneration as an example of good practice; • and increased regional co-operation by transfer of technology to and enhanced co-operation with the new Member States. <p>A key source of funding is the Seventh RTD Framework programme (2007-2013), which was adopted by the Commission on 6th April 2005. Prior to FP7, an important number of projects have been funded under the Sixth RTD Framework programme (FP6).</p>
Procedure	At the Spring European Council in March 2004 the Heads of States and Governments gave the political impetus to its implementation. By the end of 2005 the Member States have put in place their national strategies. A first implementation report has been published on 27 January 2005. In this report the Commission invited the Member States to adopt national road maps for implementation of ETAP. Moreover, in order to stimulate stakeholders to participate, exchange information between them, create synergies and help the Commission on ETAP, a European Forum on Eco-Innovation has been set up. Its first meeting was held in Poland on 21-22 November 2006.
Website	http://ec.europa.eu/environment/etap/index_en.htm

Intelligent Energy for Europe	
Full Title	Decision No 1230/2003/EC adopting a multiannual programme for action in the field of energy: "Intelligent Energy - Europe" (2003 - 2006). A second IEEA has been launched with a budget of about € 730 million as part of the European Competitiveness and Innovation Framework Programme (CIP) 2007-13.
Brief Outline	Intelligent Energy - Europe (IEE) was adopted on 26 June 2003 and entered into force on 4 August 2003. It is the EU's support programme for non-technological actions in the field of energy efficiency and renewable energy sources. The first version of the Programme was structured in four fields: SAVE: Improvement of energy efficiency and rational use of energy; ALTENER: Promotion of new and renewable energy sources for centralised and decentralised production of electricity and heat and their integration into the local environment and the energy systems; STEER: Support for initiatives relating to all energy aspects of transport, the diversification of fuels and the promotion of renewable fuels (bio fuels) and energy efficiency in transport; and COOPENER: Support for initiatives in the developing countries. The IEE-2 programme builds on the success of the IEE and essentially replicates the same structure. The main difference from the IEE-1 is that the share of co-financing offered by the IEEA has increased from 50% to 75%. This reflects the will to engage better with SMEs and organisations from new EU Member States. On May 22 the Application forms and guide for proposers for the submission of projects under the 2007 call for proposals have been published.
Comments	The SAVE and ALTENER parts of the programme can provide financial support for international (non-technical) projects on cogeneration
Procedure	The IEE and IEE-2 programmes are supervised by the Intelligent Energy Executive Agency (IEEA) which is part of the European Commission.
Website	http://ec.europa.eu/energy/intelligent/index_en.html

State Aid for Environmental Protection	
Full Title	Community guidelines on State aid for environmental protection (2001/C37/03) ("State Aid Guidelines")
Brief Outline	The guidelines came into force in 2001 and will be applicable until 31 December 2007. They explain the criteria used to decide when state aid measures for environmental protection (like tax reductions, exemptions, or new forms of operating aid in the energy sector) are justified, and whether they are compatible with the rules of the Common Market. Stranded costs and state aid in the agriculture sector are not covered by the guidelines. Generally, the internalisation of external environmental costs and the application of the polluter pays principle would make state aid not necessary. Yet, state aid is justified if full costs internalisation is not achieved, or to stimulate further improvements in firms. But state aid only to meet investment needs arising from new EU technical standards is considered unjustified. Energy-saving measures and the use of renewables are explicitly understood as action to protect the environment, although renewables are only recognised if used by installations of less than 10 MW capacity. State aid for CHP is generally seen as acceptable subject to the conditions established in the guidelines. A distinction is made between investment and operating aid: Investment aid for investment into CHP is acceptable when CHP is highly efficient, less environmentally damaging, or reducing energy consumption. The general maximum support rate of 40 % of eligible costs can even be higher if renewable energy sources are used, in assisted regions, or if the investors are SMEs. Eligible costs are defined as "extra investment costs necessary to meet the environmental objectives". Operating aid must be limited to compensating for extra production costs compared to market prices, and it has to be temporary: degressive operating aid may cover 100% of extra costs initially, but it must decrease in a linear fashion to zero within a maximum period of 5 years. If operating aid is non-degressive, it must not cover more than 50% of eligible extra costs, and its duration is limited to 5 years. In addition to these provisions, the Guidelines make detailed statements on the use of operating aid in form of tax reductions and exemptions. The Commission is preparing a revision of the deadline to enter into force after 31 December 2007 and on April 27 it came out with a Vademecum on Community Rules on State Aids in order to provide a concise overview of the proposed new legislation Regarding aid for environmental protection measures, the new document individuates eligible activities and costs. In particular the guidelines will allow: <ul style="list-style-type: none"> • Aid for investment to adapt to new compulsory EU environmental standards or to • improve on such standards • Aid for investment in energy saving, in renewable sources of energy and in combined heat and

	<p>power installations (CHP)</p> <ul style="list-style-type: none"> • Operating aid to promote energy savings • Operating aid in the form of reductions of or exemptions from taxes levied on certain activities for reasons of environmental protection • Operating aid for the combined production of electric power and heat <p>In case if investment aid, the eligible costs must be calculated net of the benefits accruing from in capacity, cost savings engendered during the first five years of the life of the investments and additional ancillary production during that five. In the case of CHP, the extra cost compared to the cost of a comparable conventional power plant.</p> <p>In the case of operating aid the eligible costs are limited ti the extra production costs by comparison with market prices of the relevant products or services.</p> <p>The maximum aid goes from 15% to 50% (40% to 50% for CHP) in the case of investment aid and from 50% to 100% in the case of operating aid.</p>
Comments	The guidelines look favourably upon aid for cogeneration and renewable energy sources: Member States can choose between several options for granting such aid up to certain thresholds, and many governments have used this opportunity so far.
Procedure	<p>In order to prepare the revision of the guidelines on state aid for environmental protection, the Commission launched a consultation on the revision in 2005, involving Member States and other interested parties. The results of the consultation have been published on 14 June 2006. The draft Community guidelines for State aid for environmental protection have been published on 10 May 2007 and interested parties may submit their comments on the draft guidelines by 25 June 2007.</p> <p>The proposed draft in discussed in the section on "European Legislation and Policies under Preparation".</p>
Impact on co/poly-generation	The fact that State Aid guidelines have explicitly allowed member States to support co/polygeneration has been an effective way to promote and help develop the sector. In the on-going review process it will be important for co/polygeneration installations that the provisions concerning cogeneration are maintained at or close to current levels.
Websites	<p>http://ec.europa.eu/comm/competition/state_aid/reform/reform.html</p> <p>See also "State aid decisions on environmental aid" on http://ec.europa.eu/comm/competition/state_aid/register/ii/by_primary_obj_environmental_protection.html</p>

AIR, CLIMATE CHANGE AND EMISSIONS TRADING

Emissions Trading Directive	
Full Title	Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community ("Emissions Trading Directive")
Brief Outline	<p>The Directive establishes a scheme for greenhouse gas emission allowance trading within the Community. It applies to a range of large emitters defined in Annex I (installations with combustion installations exceeding 20MW thermal input, plus large mineral oil refineries, ferrous metals production or processing installations, mineral industries, and pulp, paper and board industries), and thus many existing or potential CHP installations.</p> <p>During the first trading period (phase-1), 2005-07, only CO₂ emissions are covered. During the second trading period (phase-2), 2008-12, additional greenhouse gases, installations and activities may be opted into the scheme, although the most significant extensions of the scheme are expected to intervene in the third phase of the Scheme (post-2012).</p> <p>Installation operators have to submit emission allowances (called EUAs) yearly to cover for their annual verified emissions. The allocation of allowances to installations is currently dealt with by the National Allocation Plans (NAPs) that Member State draw up for each trading period. One allowance represents 1 tonne of CO₂eq.</p> <p>Annex III of the Directive defines criteria for allocation methods. At least 95% of the allowances must be allocated for free (90% during the 2008-12 period), the rest being auctioned by the Member States. The European Emissions Trading Scheme is a cap-and-trade scheme and holders of allowances can actively trade their EUAs on several Energy Exchanges, as well as over the counter.. A system of national registries, and a Community International Transaction Log (CITL) have been created to ensure the smooth trading of allowances and avoid double-counting. Failure to submit sufficient allowances carries a EUR40 fine (EUR100 in 2008-12) per emitted tonne of CO₂eq for which no allowances are submitted.</p> <p>Data published in May 2006 showed that in 2005 there was a significant surplus of EUAs with initial estimates indicating an overallocation of 78 to 44.1 million tonnes CO₂. Among the main emitting</p>



	<p>countries, only Great Britain (taken here as a single entity) was obliged to buy extra allowances on the carbon market to cover its short position. This surplus made carbon prices decrease dramatically, as the market actors reflected the information in their quotes, thereby jeopardising the credibility of the scheme.</p>
<p>Comments</p>	<p>Emissions Trading was expected to increase the marginal cost of fossil-fuelled power generation, to increase the price of electricity, to change dispatch orders, and to create new opportunity costs in the power sector arising from the price of carbon. These factors were seen as likely to push towards more investment in low-carbon and high-efficiency generation, such as CHP. However, the price of carbon only acts as an incentive for investments in mature low-carbon technologies such as cogeneration if the allocation rules do not disincentive new cogeneration installations. While during phase-1 most national allocation plans favoured cogeneration, cogeneration operators will receive less allowances during phase-2 of the ETS and the situation for phase-3 (post-2012) is yet unknown, despite the outlook tending towards a mixed allocation methodology based on benchmarks and auctioning.</p> <p>It ought to be noted that while the ETS holds the potential to be harnessed in order to promote investments in high efficiency cogeneration, the impact the ETS scheme has on new investments is limited and only marginally affects the comparative advantages of installations over other generation plants. Only deliberate incentivisation of cogeneration over power-only installations would create a meaningful supportive framework.</p> <p>One way to incentivised cogeneration investments would be to make use of ambitious fuel-specific benchmarks that would be based on the CO₂ emissions of high efficiency cogeneration systems. An alternative would be to distinguish further cogeneration installations from power only plants. This would allow cogeneration installations to be treated according to the methodologies applicable to their host sector while power only installations would be underallocated due to their low efficiencies and good cost pass-through capabilities.</p> <p>One of the main criticism form co/polygeneration sector stakeholders has been the very short time periods that have been chosen (i.e. 2005-2007 and 2008-2012). These it is argued do not offer the necessary long-term policy visibility/predictability that such large-scale investment require. It is expected that his issue will be addressed in the post-2012 period.</p>
<p>Procedure</p>	<p>The Commission has issued on 07/01/04 a guidance document on National Allocation Plans (COM/2003/830), and on 29/01/04 guidelines for the monitoring and reporting of emissions (C/2004/130). The deadline for transposition was 31/12/03. Member States had to submit their phase-1 draft National Allocation Plans by 31/03/04 (old Member States) or 01/05/04 (new Member States), but many have been late, amid much lobbying from national operators.</p> <p>Phase-2 NAPs have undergone much stiffer scrutiny by the Commission services and as a result many NAPs have had to be resubmitted in order to take into consideration the lower caps imposed by the European Commission.</p> <p>COGEN Europe has worked extensively on Emissions Trading, notably through its Working Group "Emissions Trading & CHP". This has led to better allocation methodologies for cogeneration in a number of cases. COGEN Europe is also involved in the review of the ETS Directive under the auspices of the European Climate Change Programme meetings. The objective is to "adapt some features of the ETS for the trading period starting in 2013."</p> <p>The Commission is currently reviewing the ETS Directive following its Communication on the functioning of the Emissions Trading Scheme [COM(2006)676 final] and will submit an initial report by June 2007 following the ECCP meetings.</p>
<p>Impact on co/poly-generation</p>	<p>As with most European directives, it is difficult to generalise the impact the ETS Directive has had on the co/polygeneration sector in Europe as Member States have treated their national cogeneration installations in a number of different ways, using different allocation methodologies and different cap levels. The "comment" section provided some elements of perspective on the impact of the scheme taken as a whole, as a result of the scheme's overall design. However, the impact of the scheme on co/polygeneration can also be assessed by period, based on the provisions contained in the national allocation plans (NAPs) that detail the allocation mechanisms to the installations falling under the scheme.</p> <p>It is thus necessary to distinguish between the first phase of the ETS (2005-2007), the projected impact of national allocation plans on the second phase (2008-2012) and the likely impact of the ETS following the ETS Review process currently on-going.</p> <p><u>Impact of the phase-1 NAPs</u></p> <p>With the exception of Italy and Hungary, where cogeneration installations were at a competitive disadvantage compared to the separate production of heat and electricity, most EU Member States gave generous allocations to co/polygeneration applications. However, as there was no scarcity in the market and electricity generation companies were able to fully incorporate the price of allowances to power prices co/polygeneration installations have not seen any improvement in their competitive positioning.</p> <p><u>Projected impact of the phase-2 NAPs</u></p> <p>Compared to phase-1 NAPs, the caps for phase-2 NAPs have been severely constrained by the European Commission. This in turn has a direct effect on the amount of allowances that can be allocated</p>

	<p>to installations. While the final allocation to installations has not yet been determined in most Member States, it appears that in many countries co/polygeneration installations will no longer benefit from the preferential treatment that existed in phase-1.</p> <p><u>The post-2012 phase of the ETS and co/polygeneration</u></p> <p>With much uncertainty surrounding the ETS scheme in the post-2012 period at the time of writing it is difficult to predict whether the ETS will drive investments in co/polygeneration or not. The expected end to free allowance allocation to the power sector installations will play to the advantage of cogeneration as full internalisation of carbon costs based on real emissions implies a more favourable competitive advantage for cogeneration as it has lower specific CO₂ emissions than separate production of heat and electricity. However, the pass-through capabilities for many co/polygeneration installations are limited in several Member States where installations currently operate under a regulated feed-in tariff framework.</p> <p>Finally, should allowances be auctioned, co/polygeneration installations will be at a disadvantage compared to boiler-only installations that in many cases fall outside the scope of the Directive as the total rated fuel input to the boilers is under 20 MWth. This case however is not relevant to large-scale co/polygeneration installations but is a very real issue for smaller installations.</p>
Website	http://europa.eu.int/comm/environment/climat/emission.htm

Joint Implementation and Clean Development Mechanism	
Full Title	Directive 2004/101/EC amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms ("Linking Directive")
Brief Outline	<p>The Directive allows operators covered by the EU's Emissions Trading Scheme to use credits from the Kyoto Protocol project-based mechanisms to meet their targets in place of emission cuts within the EU. Firms will be able to use CDM credits (called CERs) from January 2005 and JI credits (ERUs) from 2008. JI projects can be undertaken in countries that have quantitative emissions reductions targets under the Kyoto Protocol (in particular Russia and the Ukraine), while CDM projects may be hosted by developing countries, which have no such quantitative targets. The final version of the Directive sets no limitations on the quantity of credits that can be imported from into the EU Emissions Trading Scheme, although Governments are bound to consider the issue of complementarity - doing more than half of the emissions reductions domestically - in their twice-yearly monitoring and of emissions. In addition, the Commission has set an upper limit for most Member States for phase-2 compliance, therefore ensuring that installations would not source all their credits from CDM or JI projects and thereby undermining the stability and effectiveness of the EU ETS. Authorities must thus set national limits, in the form of a percentage of the number of allowances allocated centrally by governments. The Directive excludes credits from nuclear projects and from carbon sinks. Large hydro projects must be subjected to international rules "including" those drawn up by the World Commission on Dams.</p>
Comments	<p>Combined with Russia's recent decision to ratify the protocol, the Directive alters the market landscape by increasing the diversity of low-cost compliance options and by improving market liquidity. The resulting lower price of allowances may reduce the incentive to invest into cogeneration in Europe. On the other hand, there could be greater opportunities for JI and CDM cogeneration projects abroad. As of early 2007, cogeneration projects, whether green-field cogeneration or waste heat recovery projects had been approved in several countries under the CDM framework. In particular, small-scale renewables-based cogeneration projects have proven a very interesting option for countries such as Malaysia, India or Brazil.</p>
Procedure	The deadline for transposition of the Directive was 13 November 2005.
Impact on co/poly-generation	<p>The impact of the Linking Directive on industrial co/polygeneration projects is not straightforward. On the one hand the Linking Directive acts as an incentive to develop co/polygeneration projects abroad rather than in the EU as those projects generate CERs or ERUs that can be used by companies for compliance under the ETS.</p> <p>In addition, by allowing imports of credits from outside the ETS, the Linking Directive can be viewed as a "EUA price deflator".</p>
Website	http://europa.eu.int/comm/environment/climat/emission/linking_en.htm

Emissions from Large Combustion Plants	
Full Title	Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants ("Large Combustion Plants Directive", "LCP Directive")
Brief Outline	<p>This Directive replaces the first Large Combustion Plants Directive from 1988. It applies to combustion plants with a rated thermal input of greater than 50 MW. It aims to reduce acidification, ground level ozone and particles throughout Europe by controlling emissions of SO₂, NO_x and dust from large combustion plants. These include plants in power stations, petroleum refineries, steelworks and other industrial processes running on solid, liquid or gaseous fuel. If the waste gases from separate plants could be "discharged through a common stack", they are considered as one unit. The scope includes gas turbines – not covered in the old Directive, but it excludes gas engines and plants fuelled by diesel and petrol. The Directive sets new, stricter limit values for SO₂, NO_x and dust. Member States are allowed to adopt even stricter values if they wish. There are specific emission limit values for the use of biomass as fuel.</p> <p>"New" plants (licensed on or after 01/07/87) have to comply with emission limit values fixed in the Directive by 1 January 2008. "Existing Plant" (licensed before 01/07/87) have now also to comply with emission limits set in the Directive. Alternatively, operators can run them less than 20,000 hours between 2008-2015, nominate them as peaking plant - in which case they can run up to 2000 hours a year – or the Member State can develop a National Emission Reduction Plan (NERP). With the NERP, a Member State could define a fixed annual tonnage of SO₂, NO_x and dust that can be emitted by all existing installations as of 1 January 2008. This tonnage must not exceed the amount of emissions, which would be obtained by applying the emission limits set in the Directive to each plant individually.</p> <p>For all newly built plants, and for plant extensions by at least 50 MW, Member States have to ensure "that the technical and economic feasibility of providing for the combined generation of heat and power is examined. Where this feasibility is confirmed, bearing in mind the market and the distribution situation.</p> <p>Next steps:</p> <ul style="list-style-type: none"> • By 1 January 2008 Member States shall comply with the revised LCPD either by ensuring that existing plants comply with the ELVs or that existing plants are subject to a National Plan, except for existing plants that are exempt under the limited operating life derogation. • By 1 January 2016: the more stringent NO_x ELVs for solid fuel plants >500 MWth apply; and the low load factor derogations for SO₂ and NO_x emissions from solid fuel plants of 400 MWth or more and >500 MWth respectively become more stringent.
Comments	The provision requiring feasibility studies for cogeneration has proven ineffective in practice. How governments and operators will react to the Directive's requirements is often still unclear, but some degree of plant closures and changes in dispatch orders are to be expected. This should stimulate the market and provide some opportunities for new cogeneration projects. Countries with large coal and oil fuelled power generation capacities are most affected, i.e. Germany, Greece, Spain, Italy, the UK, Czech Republic and Poland.
Procedure	The Commission has issued on 15/01/2003 a guidance document on national emission reduction plans (2003/47/EC). The Directive is currently under review.
Impact on co/poly-generation	The Revised LCPD Directive has primarily had an impact on coal-fired installations, and to a lesser extent on oil-fired plants. Few co/polygeneration installations have been directly affected although installations in Poland have had to undergo partial upgrades to limit pollutants emissions.
Website	http://europa.eu.int/comm/environment/air/future_stationary.htm

OTHER ENVIRONMENTAL ISSUES

Waste Electrical and Electronic Equipment	
Full Title	Directive 2002/96/EC on waste electrical and electronic equipment ("WEEE Directive")
Brief Outline	<p>The WEEE Directive entered into force on 13 February 2003. It tackles the fast increasing waste stream of electrical and electronic equipment (EEE) and complements EU measures on landfill and incineration of waste. Increased recycling of EEE limits the total amount of waste, makes producers responsible for taking back and recycling and provides incentives to eco-efficient design. National governments have deadlines for organising separate collection (31 August 2005) and achieve recovery targets (31 December 2006). By 31 December 2008 new EU targets for recovery, recycling and reuse will be set. Next to this Member States are to draw up a register of producers and keep information on the quantities and categories of EEE placed on the market, collected, recycled and recovered in their territory. Producers must by 13 August 2005 provide for the financing of the collection, treatment and recovery of WEEE. In the case of products placed on the market later than 13 August 2005, each producer is responsible for providing financing in respect of his own products.</p>
Comments	The scope of this Directive applies a.o. to large and small household appliances. If micro CHP will become more standard in households, it is important to adequately address the waste phase of these appliances. Issues like design of micro CHP plants, separate collection systems, recovery and recycling



	techniques, collection targets and producer responsibility (financing, information to consumers) will fall under the WEEE Directive.
Procedure	The deadline date for implementation by Member States of the Directive was 13 August 2004. In February 2004, the Commission has presented a proposal to grant the Czech Republic, Hungary, Slovenia, Slovakia, and the three Baltic States temporary derogations from the Directive. The proposal has been adopted by the Council 30 March 2004, becoming Decision 2004/312/EC Adoption by the Council is likely to be a formality. The Parliament will not be asked for its opinion.
Impact on co/poly-generation	The WEEE Directive has no impact on industrial co/polygeneration installations.
Website	http://europa.eu.int/comm/environment/waste/weee_index.htm

Hazardous Substances in Electrical and Electronic Equipment	
Full Title	Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("RHS Directive")
Brief Outline	The RHS Directive entered into force on 13 February 2003. Alongside the WEEE Directive, it tackles the fast increasing waste stream of electrical and electronic equipment (EEE). In order to prevent the generation of hazardous waste, the RHS Directive particularly focuses on the harmful content of EEE and requires the substitution of various heavy metals, brominated flame retardants and or polybrominated diphenyl ethers. From 1 July 2006, lead, mercury, cadmium, hexavalent chromium, PBBs and PBDEs in EEE must be replaced by other substances.
Comments	The RHS covers the same scope as the WEEE Directive, a.o. large and small household appliances. In the case that micro CHP heating systems will become more standard in European households in the near future, it is important to adequately address their potentially harmful content. Issues like prevention and adaptation to scientific and technical progress will fall under the RHS Directive.
Procedure	By 13 February 2005, the Commission will review the provisions of the RHS Directive, in particular as regards the feasibility of widening its scope and adapting the list of substances it covers so as to take account of new scientific facts.
Impact on co/poly-generation	The RHS Directive has no impact on industrial co/polygeneration installations.
Website	http://europa.eu.int/comm/environment/waste/weee_index.htm

Environment Action Programme (EAP)	
Full Title	Decision No 1600/2002/EC laying down the Sixth Community Environment Action Programme
Brief Outline	This Decision establishes the sixth Environment Action Programme (Commission Communication "Environment 2010: Our future, our choice" of 24 January 2001). The EAP, covering 1 January 2001 to 31 December 2010, defines the priorities, objectives and implementation measures of EU environmental policy up to 2010 and beyond. It proposes five priority avenues of strategic action (a.o. improving the implementation of existing legislation, integrating environmental concerns into other policies) and four priority areas for urgent action (climate change; biodiversity; environment and health; and sustainable management of resources and wastes).
Comments	As a highly environmental friendly energy production process, cogeneration can play a role in the priority area of climate change in helping to reduce greenhouse gases. More specifically, it can contribute to the following EAP challenges: the integration of climate change objectives into energy policy; the reduction of greenhouse gases by means of specific measures to improve energy efficiency, to make increased use of renewable energy sources, to promote agreements with industry and to make energy savings; the establishment of an EU-wide emissions trading scheme; and a review of energy subsidies and their compatibility with climate change objectives.
Procedure	The Commission is working at the review of 6th EAP. The Internet consultation on the mid-term review of the 6th Environment Action Programme (6th EAP) ran from 29th May to 17th July 2006. The Commission said that "The 276 replies received have been carefully considered by Commission services in its preparations of the mid-term review of the 6th EAP". The Commission adopted its mid-term review report on 30 April 2007. The report (COM(2007) 225 final) will be subsequently presented to and discuss by the European Parliament and the Council. The mid-term review of the 6th EAP has confirmed that the Programme remains the correct framework for Community action in the field of the environment up to 2012.
Website	http://europa.eu.int/comm/environment/newprg/index.htm

Noise Emissions of Outdoor Equipment	
Full Title	Directive 2000/14/EC on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors
Brief Outline	This Directive entered into force on 3 July 2000. It simplifies the legislation about many noisy equipments and harmonise the requirements for their noise emissions. The Directive lays down provisions for equipment subject to permissible sound power levels (22 types) and equipment that is subject to noise marking only (41 types). Annex I defines the relevant equipment (a.o. compressors, combustion engines) and therefore these types of CHP equipment is subject to rules that regulate to noise emissions to the environment. Next to noise limits, it also gives provisions on information of the public on the noise emitted by the equipment, conformity assessment procedures, manufacturer responsibilities, etc. However, the scope of the Directive only applies to equipment being placed in the European market or put into service in Europe for the first time after 3 January 2002.
Comments	The Directive covers a variety of combustion-engine cogeneration equipment, compressors (less than



	350 kW) and power generators (less than 400 kW). Amended by Directive 2005/88/EC
Procedure	After its entry into force, a list of notified bodies designated by the EU Member States and the EFTA Countries (EEA Members), under the new approach Directives, has been drawn up. A working group set up by the Commission has concluded that a number of Stage II limits were not "technically feasible". Directive 2005/88/EC, amending Directive 2000/14/EC, was adopted on December 14, 2005. The main objective of Directive 2005/88/EC is to exclude certain types of equipment from stage II requirements, therefore allowing that this equipment can still be legally placed on the market/put into service as of January 3, 2006.
Impact on co/poly-generation	This legislation does not hold any significance for large-scale industrial co/polygeneration installations
Website	http://ec.europa.eu/enterprise/mechan_equipment/noise/index.htm

Integrated Pollution Prevention and Control	
Full Title	Council Directive 96/61/EC concerning integrated pollution prevention and control ("IPPC Directive")
Brief Outline	<p>The Directive establishes a set of EU-wide common rules on permitting for industrial installations. All installations covered by Annex I of the Directive are required to obtain an authorisation (permit) from the authorities in the EU countries. Unless they have a permit, they are not allowed to operate. The permits must be "integrated", i.e. they must take into account the whole environmental performance of the plant, including air emissions, water, land use, waste, use of raw materials, energy efficiency, noise, prevention of accidents, risk management, etc. Permits must be based on the concept of Best Available Techniques (BAT). The concept of BAT is defined in Article 2 of the Directive, whilst Annex IV provides considerations to be taken into account when determining BAT.</p> <p>In order to prevent disruptive changes and plant closures, the Directive grants to existing installations a transition period until 2007 (with extensions granted to Poland, Slovenia, Slovakia, Latvia and possibly Bulgaria and Romania). To all new installations and significant modifications of existing installations, it applies since October 1999.</p> <p>The Directive also provides for the setting up of a European Pollutant Emission Register (also known as EPER). EPER, but also permit applications, permits, and monitoring reports have to be accessible to the public.</p>
Comments	<p>Work on 31 so-called BREFs is now complete. BREFs refer to BAT reference documents and cover over 30 economic sectors of activity. The first round of. The BREF on Large Combustion Plants published in July 2006 discusses CHP extensively. Because of its high conversion efficiency, CHP is generally considered the Best Available Technology for the combustion of gaseous and liquid fuels, biomass and peat in such plants. It is thus recommended to use CHP whenever a suitable heat demand is available.</p> <p>COGEN Europe sits on the working group for the Large Combustion Plant BREFs.</p>
Procedure	The final deadline for existing installations to apply the best available techniques and meet all other requirements is October 2007. The Commission organises an information exchange on BAT, which is co-ordinated by the European IPPC Bureau. In order to promote effective implementation of the Directive, the Commission reports on progress made in the Member States. The Commission is working on a review of the IPPC Directive. The review will not affect requirements of the IPPC Directive that Member States and industry will need to fulfil before 30 October 2007.
Impact on co/poly-generation	The work towards the BREF on Large Combustion Plants has reaffirmed the special role industrial co/polygeneration has to play in the EU. However, the BREFS do not require companies to base their investment policies upon them, and hence the BREF has not led to a shift towards greater reliance on co/polygeneration since its adoption, although it may be a little early to come to a final conclusion.
Websites	<p>Commission's IPPC website (http://europa.eu.int/comm/environment/ippc/index.htm)</p> <p>IPPC Bureau website (http://eippcb.jrc.es)</p> <p>EPER website (http://www.eper.cec.eu.int/eper/default.asp)</p> <p>Directive review (http://ec.europa.eu/environment/ippc/ippc_review_process.htm)</p>

Energy Efficiency

Energy Performance of Buildings	
Full Title	Directive 2002/91/EC on the energy performance of buildings ("Buildings Directive")
Brief Outline	Lays down a general framework to devise a methodology to calculate the integrated energy performance of buildings, for which Member States have to define minimum requirements. This performance describes the amount of energy, which the standard use of the building consumes. The calculation process has to take into account the "positive influence of electricity produced by CHP" and of "district or block heating and cooling systems". For new buildings with a useful floor area of more than 1000 m ² , Member States have to ensure that the feasibility of alternative systems, including "CHP" and "district or block heating or cooling" systems is considered. The Directive also sets the basis for creating an energy performance certification systems of buildings. This certificate must be visibly displayed in larger public buildings. Member States will also have to make sure that regular inspections of old boilers, air conditioning systems and heating installations are being carried out, and that the owners of the buildings are advised on improvements, alternatives, or replacements.
Comments	Four mechanisms could support cogeneration: (a) requirement to integrate its benefits into the calculation of the energy performance of buildings (b) mandatory feasibility studies for CHP for larger new buildings (c) the inspection duties for old heating installations (d) the energy performance certificate of buildings. However, buildings smaller than 1000m ² and boilers with a capacity below 20kW are not properly covered. The effect on the market penetration of micro-cogeneration units for single apartments or individual dwellings may therefore be limited.
Procedure	The deadline for transposition into national legislation was January 2006. Nearly all Member States have requested from the European Commission three years of extra time for training sufficient expert to carry



	<p>out the inspection of boilers and air-conditioning systems, and for awarding the energy performance certificates. The European Commission is expected to give green light to these requests, as art. 15 (2) explicitly allows for this option.</p> <p>According to Energy efficiency action plan, introduced by the Commission in October 2006 and approved by Member States in November, there will be in 2009, after its complete implementation, a revision of the directive with the extension of its scope, probably including smaller buildings.</p>
Impact on co/poly-generation	The Buildings Directive is not expected to have any significant impact on industrial co/polygeneration as its main focus is on tertiary sector buildings. The Directive may have however an indirect effect in that it may spur interest in district heating which could be fed by co/polygeneration plants.
Website	http://ec.europa.eu/energy/demand/legislation/buildings_en.htm

Energy end-use efficiency and energy services	
Full Title	Directive on energy end-use efficiency and energy services (Directive 2006/32/EC)
Brief Outline	<p>Directive 14 March 2006 aims to boost the cost effective and efficient end-use of energy in the Union by establishing a framework for the creation of a competitive European market for energy services. The directive sets an indicative national target of 1% yearly energy savings in the retail, supply and distribution of electricity, natural gas, urban heating, and other energy products including transport fuels. In order to reach this target Member States are required, starting from 2008 and till 2017, to draw national action plans that will need the approval of the Commission and that will be reviewed every 3 years.</p> <p>The directive introduces the public sector obligation to take energy efficiency into account in public procurements for the purchasing of vehicles, buildings and other equipment and the supply-side obligation for energy distributors and retailers that are required to offer efficiency improvement measures to their customers. Moreover the directive introduces a harmonised measurement system for energy savings and a harmonised framework for common definitions, certification schemes for energy services providers, consumer information plus contractual, financial and legal instruments in order to create a single EU market for energy efficiency.</p> <p>In order to kick -start a market for energy services, energy distributors would be required to integrate energy services into their distribution and sales activities and to cover at least a 5% share of their consumers.</p> <p>Of particular interest for the cogeneration industry is the fact that the European Parliament has included CHP (and micro-CHP in particular) into the list of examples of where Member States may develop and implement energy efficiency measures (annex III). This amendment was introduced by the British liberal MEP, Ms Fiona Hall.</p>
Comments	After its full implementation the Directive could potentially help remove market barriers and create new business opportunities for the installation of CHP by energy service companies.
Procedure	<p>The Energy efficiency action plan calls for a full collaboration from Member States for the implementation of this directive. The first national energy efficiency action plan is due on 30 June 2007, while the deadlines for the second and third one are 30 June 2011 and 30 June 2014.</p> <p>Moreover it states that the Commission will work on a Memorandum of Understanding in co-operation with the Council of European Energy Regulators (CEER) setting forth guidelines and a code of conduct on improving energy end-use efficiency in all sectors.</p> <p>Moreover the action plan stresses how the directive will allow the evaluation of an EU-wide White Certification Scheme in 2008, taking into account developments in Member States and progress with the EU harmonised measurement system for energy efficiency improvements.</p>
Impact on co/poly-generation	The energy end-use and energy services directive does not relate directly to industrial co/polygeneration as its main focus is on demand side management in the retail sector.
Websites	http://ec.europa.eu/energy/demand/legislation/end_use_en.htm

INTERNAL MARKET FOR ENERGY

Internal Market for Electricity	
Full Title	Directive 2003/54/EC concerning common rules for the internal market in electricity ("Electricity Directive")
Brief Outline	<p>Defines common rules for the generation, transmission, distribution and supply of electricity. The electricity market has to be opened at the latest to all non-household customers from 1 July 2004 and to all customers on 1 July 2007. Authorisation procedures for new generators can include requirements related to environmental protection, energy efficiency or specific primary energy sources. They also should reflect the limited size and potential impact of small and/or distributed generators. Distribution system operators have to consider energy efficiency, demand side management and/or distributed generation when they plan the network. Member States can require transmission and distribution system operators to give priority dispatch to generators using renewables, waste or CHP. Electricity suppliers have to specify in their bills and promotional materials for final customers the fuel mix of their electricity during the last 12 months. They also have to inform customers where to find information on the CO₂ emissions and the radioactive waste, which this fuel mix generates. Transmission and distribution system operators, which form part of an integrated electricity company, need to have at least a legal form, organisation and decision-making, which are independent from other activities of the company. Integrated electricity companies have to keep separate accounts for their transmission, distribution and other activities. Revenue from ownership of electricity networks has to be specified. The connection of new generators to the transmission and distribution networks has to be based on objective, transparent and non-discriminatory criteria, and all costs and benefits from connecting generators using renewables, CHP and/or distributed generation have to be taken into account. Network tariffs have to be approved and published before being applied. Member States have to designate a national regulatory authority, which is "wholly independent of interests of the electricity industry" and which disposes of a minimum set of regulatory and supervisory powers vis-à-vis electricity undertakings. They have to be able to monitor the functioning of the market and of competition, control grid connection and grid use conditions and tariffs, and settle disputes between market participants.</p>
Comments	<p>The Directive gives national governments a wide margin to establish regulatory mechanisms and economic incentives to promote energy efficiency, distributed generation and cogeneration. Yet, whether Member States make use of these opportunities or not depends to a large extent on their policy objectives and determination.</p> <p>In its latest benchmarking report, the Commission expressed disappointment about slow progress in developing the internal electricity market in most Member States. The risk of new pan-European oligopolies is a genuine possibility.</p>
Procedure	<p>The deadline for transposing the Directive into national law was 1 July 2004. Until 2010, Member States have to submit by 31 of each year a report to the European Commission, which informs on market dominance, and predatory or anti-competitive behaviour of market participants. The Commission is currently unsatisfied by the degree of implementation of liberalisation measures. In December 2006 it sent "reasoned opinions" to countries in the second step of legal procedures launched in 2006 to speed up the implementation of gas and electricity liberalisation directives. At the same time, the Commission presented a Communication in the framework of its Energy Package presented on 10 January 2007 (COM(2006) 841 final). In this document the Commission declares the need of further legislation in order to guarantee a full opening of the market. In particular, the Commission is considering to present proposals to reform unbundling on the basis of two main options: A fully "ownership unbundling" or a full independent system operator, without ownership unbundling.</p>
Impact on co/poly-generation	<p>Directive 2003/54/EC has varying levels of impact on co/polygeneration installations (including new installations) depending on the Member State in which the installation is located as well as the electricity network operator the plant is linked to. It is possible identify however several important issues that directly impact the viability and/or attractiveness of co/polygeneration installations:</p> <p><u>Technical rules</u></p> <p>Article 5 states that Member States shall ensure that technical rules establishing the minimum technical design and operational requirements (...) are developed and made public. These technical rules shall ensure the interoperability of systems and shall be objective and non discriminatory."</p> <p>The provisions in article 5 were meant to prevent abuse of dominant power from historical utilities who still owned and managed networks and could use this to prevent competition in the electricity generation sector. Work carried out in the ELEP (European Local Electricity Production - www.elep.net) project indicates that technical rules are not always public and that in several Member States technical rules are left to the interpretation of the network companies, which results in some cases in bilateral negotiations between the project developer and the network operator. This situation has given rise to many arbitrations by national energy regulators. Industrial co/polygeneration installations suffer from the current lack of clarity on technical rules.</p> <p><u>Authorisation procedures for new capacity</u></p>



	<p>Article 6 ("Authorisation procedure for new capacity") states that Member States may use criteria (article 6-2) in evaluating the granting of authorisations. The criteria "may relate to (...) protection of the environment (...), energy efficiency (...)."</p> <p>Article 6-3 requires Member States to "ensure that authorisation procedures for small and/or distributed generation take into account their limited size and potential impact."</p> <p>Article 6 gave Member States the opportunity to require energy efficiency thresholds and facilitate the authorisation procedures for distributed generation installations. Since the adoption of the Directive no Member State however has made direct and explicit use of article 6 to direct new investment towards co/polygeneration based on energy efficiency or environmental considerations. This appears as a great missed opportunity as article 6 provides a legal basis for setting high efficiency thresholds.</p> <p><u>Dispatching and balancing</u></p> <p>Article 11-3: "A Member State may require the system operator, when dispatching generating installations, to give priority to generating installations using renewable energy sources or waste or producing combined heat and power."</p> <p>Member States have followed a number of different courses when implementing this provision, which for the main part carried forward existing practices in many Member States. Its impact can therefore be considered to have been minimal.</p> <p>Article 11-7: "Rules adopted by TSOs for balancing the electricity system shall be objective, transparent and non-discriminatory, including rules for the charging of system users of their networks for energy imbalances. Terms and conditions, including rules and tariffs, for the provision of such services by TSOs shall be established (...) in a non-discriminatory and cost-reflective way and shall be published."</p> <p>Co/polygeneration installations in a number of Member States have complained about what they perceive as excessive tariffs. The difficulty is that as these tariffs are usually approved by the electricity regulator, once approved there is little generators can do.</p> <p><u>Direct lines</u></p> <p>Article 11 on Direct Lines essentially gives the right to generators to sell electricity via a direct line to an eligible customer. This was expected to help co/polygeneration installations find alternative options to selling their electricity to the electricity network. It is believed that some Member States are reluctant to authorise the sale of electricity to eligible customers through a direct line.</p> <p><u>Transparency of procedures and charging</u></p> <p>Article 23-1 (entitled "Regulatory authorities") requires member States to designate one or more competent bodies with the function of regulatory authorities. They are expected to ensure "non-discrimination, effective competition and the efficient functioning of the market (...)." Follows a list of specific points that the regulatory authorities must monitor. The list includes: "(c) the time taken by transmission and distribution undertakings to make connections and repairs", "(f) the terms, conditions and tariffs for connecting new producers of electricity to guarantee that these are objective, transparent and non-discriminatory, in particular taking full account of the costs and benefits of the various renewable energy sources technologies, distributed generation and combined heat and power."</p> <p>Many Member States have not correctly implemented article 23-1 as in many countries the terms of connection are not transparent.</p> <p>In addition to the above, capacity charges, despite being regulated by the regulator, are often viewed as having a negative impact on co/polygeneration, in particular for those that import little or no power, which is often true of on-site installations.</p> <p>On most of the issues listed, it is unclear to what extent the Commission's review of the Directive 2003/54/EC will provide remedies to the lapses identified. It ought to be noted however that implementation of the Directive's provisions is what is required, rather than incremental evolutions in the text of the Directive itself.</p> <p>Industrial site operators have pointed out that in the early stages of the opening of the market, network operators had a tendency to communicate requests for preliminary connection studies to their supply division, who would then lower the price of electricity for that given customer in order to prevent it from building on-site power generation capacity.</p>
Website	http://europa.eu.int/comm/energy/electricity/legislation/index_en.htm

Access to Electricity Transmission Networks	
Full Title	REGULATION (EC) No 1228/2003 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity
Brief Outline	Regulation 1228/2003 allows for the intensification of trade in electricity by imposing fair, cost-reflective, transparent and directly applicable rules and supplements the provisions of Directive 96/92/EC. In particular, the Decision has an impact on cross-border tariffication and the allocation of available interconnection capacities as it lays down basic principles with regard to both issues. In addition, the Regulation provides for the adoption of guidelines detailing further principles and methodologies.



Comments	Regulation 1228/2003 focuses first and foremost on trans-border flows of electricity and the legal and commercial framework in which these flows take place. The Regulation does not carry provisions directly affecting power generators active in a single Member State (i.e. not trading the electricity across borders). The Regulation however does call for transmission access charges reflecting "the balance between generation and consumption of the region concerned, on the basis of a differentiation of the network access charges on producers and/or consumers" (point 12). Article 4 of the Regulation deals with "Charges for access to networks" and reiterates the key requirement of transparency.
Procedure	The Regulation entered into force on 27 July 2003 and applies in all Member States since 1 July 2004. Member States must lay down rules on penalties applicable to infringements of the provisions of the new regulation. The Commission shall monitor the implementation of this Regulation. In its report under Article 31(3) of Directive 2003/55/EC, the Commission shall also report on the experience gained in the application of this Regulation. In particular the report shall examine "to what extent the Regulation has been successful in ensuring non-discriminatory and cost-reflective network access conditions (...) as well as to what extent effective locational signals are in place. If necessary, the report shall be accompanied by appropriate proposals and/or recommendations."
Impact on co/poly-generation	The Regulation is not particularly relevant as its focus is on cross-border flows of electricity. Nevertheless, the Regulation restates the importance of transparency when it comes to the terms of access to the transmission grid. The Regulation has one important provision for on-site power producers embedded in it: article 4-1 indicates that "charges applied by network-operators for access to the networks (...) shall not be distance related."
Websites	http://ec.europa.eu/energy/electricity/legislation/legislation_en.htm http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_176/l_17620030715en00010010.pdf

Internal Market for Natural Gas	
Full Title	Directive 2003/55/EC concerning common Rules for the Internal Market in Natural Gas ("Gas Directive")
Brief Outline	Establishes common rules on the storage, transmission, supply and distribution of natural gas. 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 gas market should be opened for all non-household customers by July 2004 and for all customers by July 2007. Legal unbundling of network activities from supply is required like in the Electricity Directive. Member States have to establish a regulator, require published network tariffs, reinforce public service obligations and monitor security of supply. Member States can chose between negotiated or regulated access to the gas network system. Gas undertakings may refuse access only if they can give substantial reasons. The Commission has to benchmark progress on the Gas Directive annually.
Comments	According to the latest benchmarking report from 2004 of the European Commission, competition in the natural gas market has well developed only in 4 out of 25 Member States, whilst the majority of countries has taken only initial steps towards market opening. There are still too many barriers to reach the objective to "[to create] a fully operational internal gas market, in which fair competition prevails (...)" seems therefore still remote. The EU has also adopted the Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply. This Directive clarifies some points with respect to the obligations of the various gas market actors.
Procedure	The deadline for transposing the Directive into national law was 1 July 2004. The Commission is currently unsatisfied by the degree of implementation of liberalisation measures. In December 2006 it sent "reasoned opinions to countries in the second step of legal procedures launched in 2006 to speed up the implementation of gas and electricity liberalisation directives. At the same time, the Commission presented a Communication in the framework of its Energy Package presented on 10 January 2007 (COM(2006) 841 final). In this document the Commission declares the need of further legislation in order to guarantee the full opening of the market. In particular the Commission is considering to present proposal to reform unbundling on the basis of two main options: "full ownership" unbundling or a fully independent system operator, without ownership unbundling.
Impact on co/poly-generation	Much of the EU's installed co/polygeneration capacity is fuelled by natural gas and therefore the opening of the gas market has been a significant development for operators. <u>The issue of gas prices and contracts</u> Despite indications that gas prices particularly for large customers may be becoming more competitive, the evidence in published statistics is still unclear. The risk that national monopolies will be replaced by a pan-European oligopoly is a genuine possibility. Recent trends point towards this development. Industrial co/polygeneration operators have been reluctant to exit their long-term fixed tariffs for natural

	<p>gas as the natural gas market is volatile, which increases the risk premium.</p> <p>Overall, increased gas price volatility has acted as a disincentive for co/polygeneration as compared with an industrial boiler more natural gas is consumed. In addition, the correlation between natural gas price changes and electricity price variations is not perfect, thereby increasing the risk of unprofitable operation for industrial co/polygeneration operators should gas price rise further.</p> <p><u>Network access as an issue relevant to industrial co/polygeneration</u></p> <p>Access to the natural gas grid system is dealt with by the Directive under Chapter VI (articles 18 to 25). Many of the issues surrounding access to the natural gas networks are similar to those facing co/polygeneration installations with regards to the electricity grid. However, fewer problems have arisen for co/polygeneration installations that are linked with poor implementation of Directive 2003/55/EC than for the Electricity Directive 2003/54/EC.</p> <p>It is necessary to also consider the provisions of Regulation 1775/2005 when it comes to access to the gas transmission networks.</p>
Website	http://europa.eu.int/comm/energy/gas/legislation/index_en.htm

Access to Gas Transmission Networks	
Full Title	Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005
Brief Outline	<p>The Regulation sets fair rules for access conditions to natural gas transmission systems taking into account the specificities of national and regional markets. The regulation sets up guidelines on access taking account of the differences between national gas systems. The guidelines establish minimal requirements in order to ensure non-discriminatory access to the network. It aims at setting non-discriminatory rules for access conditions to natural gas transmission systems taking into account the specificities of national and regional markets with a view to ensuring the proper functioning of the internal gas market.</p> <p>This objective shall include the setting of harmonised principles for tariffs, or the methodologies underlying their calculation, for access to the network, the establishment of third party access services and harmonised principles for capacity allocation and congestion management, the determination of transparency requirements, balancing rules and imbalance charges and facilitating capacity trading.</p> <p>The regulation is aimed at complementing internal gas market directive 2003/55/EC, in parallel to regulation 1228/2003 on conditions for access to the network for cross-border exchanges in electricity, adopted in 2003 as a package.</p> <p>The regulation also takes into account guidelines approved by the European gas regulatory forum (Madrid Forum).</p>
Comments	Due to the contractual structure of natural gas transport contracts, it is the supplier that books transport capacity for all end-users. This can cause difficulties for co/polygeneration operators who wish to change supplier as their former supplier retains the transport capacity. Hence, despite the fact that capacity charges are usually transparent and regulated, industrial operators can find it difficult to change supplier as in many large EU Member States the former supplier has to give his agreement for the capacity he booked to be transferred.
Procedure	<p>The Regulation entered into force on 23/11/2005. It applies since 1 July 2006 with the exception of the second sentence of Article 9(2), which applies since 1 January 2007.</p> <p>Member States may establish an entity or body set up for the purpose of carrying out one or more functions typically attributed to the transmission system operator, which shall be subject to the requirements of this Regulation. In addition, the Member States must lay down rules on penalties applicable to infringements of the provisions of the new regulation.</p> <p>The Commission shall monitor the implementation of this Regulation. In its report under Article 31(3) of Directive 2003/55/EC, the Commission shall also report on the experience gained in the application of this Regulation. In particular the report shall examine to what extent the Regulation has been successful in ensuring non-discriminatory and cost-reflective network access conditions for gas transmission networks in order to contribute to customer choice in a well functioning internal market and to long-term security of supply. If necessary, the report shall be accompanied by appropriate proposals and/or recommendations.</p>
Impact on co/poly-generation	<p>The Regulation is relevant as it establishes harmonised principles on:</p> <ul style="list-style-type: none"> ▪ the definition on tariffs for access to networks and on third party access services; ▪ capacity allocation mechanisms and congestion management procedures; ▪ transparency requirements; ▪ balancing rules and imbalance charges; ▪ trading of capacity rights.
Websites	<p>http://europa.eu.int/prelex/detail_dossier_real.cfm?CL=en&DosId=187550</p> <p>http://eur-lex.europa.eu/LexUriServ/site/en/oj/2005/l_289/l_28920051103en00010013.pdf</p>

Taxation of Energy Products and Electricity	
Full Title	Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity ("Energy Taxation Directive")
Brief Outline	<p>This Directive widens the scope of the EU's minimum rate system for energy products, previously limited to mineral oils, to all energy products including coal, natural gas and electricity. It aims to reduce distortions caused by different tax rates on energy products between Member States, and between mineral oils and the other energy products. It also provides for national incentives to encourage energy efficiency and emissions reduction. Energy products are taxed only when used as fuel or for heating, and not when used as raw materials, or in chemical reductions or in electrolytic or metallurgical processes. Furthermore, energy products used in particular in stationary engines and for agricultural purposes will normally be taxed at lower levels than the levels applicable to fuel used in motor cars. Member States will be able to tax business use of energy products at a lower rate than non-business use, and to exempt renewable energy sources including biofuels.</p> <p>The Directive allows preferential tax regimes for cogeneration. Article 15 states that Member States may exempt electricity from high-efficiency cogeneration partly or entirely. National governments can use national definitions of "high-efficiency" until the definition under the CHP Directive is transposed into national law. The Directive includes various transitional periods and derogations for certain Member States of the old EU-15.</p>
Comments	<p>The Directives gives Member States the possibility to support the development of high-efficiency cogeneration through preferential tax regimes. But this outcome depends (a) on national governments and (b) on whether installations qualify as high-efficiency cogeneration under the Cogeneration Directive.</p> <p>It should be noted that some Member States go against the spirit of the Directive by applying the full tax for natural gas and coal to industrial co/polygeneration, while exempting centralised power-only installations. This unfortunate situation can currently be found in France (where co/polygeneration plants nevertheless receive a tax exemption for the first 5 years of operation).</p>
Procedure	On 27 October 2003, the European Union's Council of Ministers adopted the Directive and it was published in the Official Journal of 31 October 2003. The Directive has come into force on 1 January 2004. The Commission proposed transitional arrangements for Accession Countries that were later adopted by the Council of ministers in the form of two directives amending Directive 2003/96/EC. These are Council Directive 2004/74/EC and Council Directive 2004/75/EC of 30 April 2004.
Impact on co/poly-generation	The Directives provides the possibility to support the development of high-efficiency cogeneration through preferential tax regimes.
Website	http://ec.europa.eu/taxation_customs/taxation/excise_duties/energy_products/legislation/index_en.htm

RENEWABLE ENERGY SOURCES

Electricity from Renewable Energy Sources	
Full Title	Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market ("Renewables Directive")
Brief Outline	<p>The directive sets an EU-wide target of 21% of renewables share in electricity production by 2010 in the framework of the target of 12 per cent of total energy consumption by 2010, set by 1997 White Paper "Energy for the future: renewable sources of energy - White Paper for a Community Strategy and Action Plan" (COM(97)599 final) The directive defines renewable energy as all non-fossil sources, including biogases, biomass, geothermal, hydro-power, landfill gas, sewage treatment plant gas, solar and wind. Electricity is classified as being produced from RES if it is obtained from plants using solely renewable energy sources, as well as the proportion of electricity produced in hybrid plants that use conventional energy sources. The directive defines national indicative targets for the share of electricity to be produced from renewable sources by 2010. It is up to the Member States to take appropriate measures to promote renewable energy production and consumption in order to reach these targets, and they must issue regular reports assessing the progress made. The Directive introduces a system of 'guarantee of origin' to ensure that electricity really is produced from a renewable source. Certificates to this effect are to be issued by the Member States and they should be recognised EU-wide. Member States have to ensure that access of the renewable electricity to the grid is guaranteed by the operators. They may also provide for priority access to the grid system of renewable electricity. Connection charges have to reflect the economic cost and benefits associated with the connection. This is to avoid unfairly high costs for small producers.</p>
Comments	The Directive is important for all types of bio-fuelled cogeneration. It has led to simplified planning procedures for renewable projects and guaranteed grid access for green power. It has also created more transparent terms for grid access and use.
Procedure	In the Renewable Energy road map, part of the Energy- Climate change package presented in January 2007, the Commission stated that with current policies and efforts in place, the EU will probably achieve

	not more than 19% by 2010. In particular only 9 Member States are fully on track to reach their goals.
Impact on co/poly-generation	The Directive has an impact for cogeneration from renewables through <ul style="list-style-type: none"> • Quantified national targets for consumption of electricity from renewable sources of energy • National support schemes plus, if necessary, harmonised support system • Simplification of national administrative procedures for authorisation • Guaranteed access to transmission and distribution of electricity from renewable energy sources
Website	http://ec.europa.eu/energy/res/legislation/electricity_en.htm

RESEARCH AND DEVELOPMENT

Seventh Framework Programme for Research and Technological Development	
Full Title	Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013) ("FP7")
Brief Outline	FP7 has been designed to build on the achievements of its predecessor towards the creation of the European Research Area, and carry it further towards the development of the knowledge economy and society in the European Union. It fosters scientific excellence, competitiveness, employment and innovation through the promotion of better co-operation and co-ordination between relevant actors at all levels. Objectives of FP7 have been grouped into four categories: Cooperation, Ideas, People and Capacities. For each type of objective, there is a specific programme corresponding to the main areas of EU research policy. Overall FP7 budget for the period 2007-2013 should be EUR 50 521 million, while the budget dedicated to Energy area (included in "cooperation") should be EUR 2350 million. In particular FP7 will finance the development of technologies to increase the use of renewables for heating and cooling, Smart energy networks and Energy efficiency and savings.
Comments	While the European Commission has earmarked more funds to research and technological development for the energy sector, a majority of funds are to be destined to RTD on nuclear power generation. Large amounts of funding will be directed to research on renewable power generation and it is not clear at this stage what type of polygeneration-related projects and programme activities will be funded.
Procedure	On 18 December 2006, the Council adopted decisions establishing the Seventh Framework Programme of the European Community (EC) for research and technological development for the period 2007 to 2013, and the FP7 for nuclear research activities (Euratom) for 2007 to 2011. The Council also adopted a regulation laying down the rules for the participation of undertakings, research centres and universities in actions under FP7-EC and for the dissemination of research results. Following this adoption, the Specific Programmes were also adopted by the Council on 19 December. The first calls for proposals were published on 22 December 2006. You can find all the information about them and how to apply on the CORDIS web site.
Impact on co/poly-generation	Research on combustion processes and energy efficiency will have a positive influence on polygen/cogeneration equipment and systems in the long-term but will not help build up capacity in European industry in the next few years.
Website	DG Research webpage on FP7: http://ec.europa.eu/research/fp7/index_en.cfm Cordis webpage on FP7: http://cordis.europa.eu/fp7/home_en.html

ENERGY INFRASTRUCTURE

Energy Infrastructure Investment and Security of Supply	
Full Title	Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment ("the Infrastructure Directive")
Brief Outline	The Directive aims to promote investment in the European energy sector by both strengthening competition and helping to prevent the reoccurrence of the blackouts that took place during summer 2003. In particular, it highlights the major importance of a clear demand management, through the development of a more oriented energy efficiency policy. It also emphasises the need of a clear EU legislative framework for the proper functioning of a competitive internal market for electricity, by safeguarding security of electricity supply and ensuring an adequate level of interconnection between Member States, through general, transparent and non-discriminatory policies. Moreover, the Commission makes further proposals for the Energy Trans-European networks in electricity and gas, in order to make it more efficient, to link decisively the future new Member States to the Energy Single Market, and to develop a similar approach with neighbouring countries. It also proposes a regulation on cross-border exchanges in gas which will incorporate in the EU legislation the guidelines agreed by the sector and empower the national regulators to ensure their implementation.
Comments	Under the directive Member States would have to develop policies on how to satisfy electricity demand



	and define standards to ensure secure transmission and distribution. Transmission system operators and national energy regulators would play a bigger role than now in producing and monitoring investment strategies.
Procedure	The 27 Member States must bring into force all the necessary provisions by 24 February 2008. By 1 December 2007 the Member States must notify the Commission of the text of the provisions of national law which they adopt in the field covered by this Directive. The deadline for transposition is 24 February 2008
Impact on co/poly-generation	The Directive states that, notwithstanding Articles 87 and 88 of the Treaty, Member States may take additional measures that facilitate new generation capacity and the entry of new generation companies to the market. Measures may also be introduced facilitating the removal of barriers that prevent the use of interruptible contracts, the removal of barriers that prevent the conclusion of contracts of varying lengths for both producers and customers, the adoption of real-time demand management technologies such as advanced metering systems and energy conservation measures.
Website	http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexdoc!prod!CELEXnumdoc&lg=EN&numdoc=32005L0089&model=guicheti

Trans-European Energy Networks (TEN-E)

Full Title	Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks and repealing Decision 96/391/EC and Decision No 1229/2003/EC
Brief Outline	The EU finances electricity and gas transmission infrastructure projects of European interest. The TEN-E initiative aims to support the development of cross-border electricity and gas networks, particularly to link up with new Member States and neighbouring regions. It identifies projects of common interest, including those with priority, access to Community financial aid from the budget for TENs, Structural and Cohesion Funds, and the European Investment Bank. It will introduce the Declaration of European Interest and nominate a European co-ordinator for some cross-border projects.
Comments	The construction only of the priority projects foreseen for the 2007-13 period would require a total investment in the order of €28 billion. The EU financial support foreseen will lead towards more a centralised electricity system in the EU, despite the well-known deficiencies of such a system. An investment of a similar size in the development of a more decentralised electricity system would probably result in better security of supply, higher efficiency, primary energy savings, reduced CO ₂ emissions, lower specific investment costs, and more jobs. The decision should therefore be withdrawn, and a different approach to developing Europe's electricity system should be taken.
Procedure	A yearly budget of about €25 million is spent mainly for supporting feasibility studies. Most of the projects cross national borders or have an influence on several Member States. The <u>guidelines</u> on Trans European Energy Networks specify which projects are eligible for funding. The <u>financial rules</u> specify the financial procedures involved. The TEN-E initiative obliges Member States to set out streamlined timetables for these projects and grant planning permits for their accelerated development; Commission has to report annually on overall level of interconnection, the projects, and its financial contribution to them The <u>call for applications for funding</u> 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 TENs are integral to the EU's overall energy policy objectives, increasing competitiveness in the electricity and gas markets, reinforcing security of supply, and protecting the environment.
Impact on co/poly-generation	Directing investments toward reinforcing the trans-border transmission networks will not help spur industrial polygeneration as some of the value of decentralised generation will not be realised if priority is given to increasing interconnector capacity. This could however benefit very large installations located close to another Member State.
Website	http://ec.europa.eu/ten/energy/index_en.htm

EU LEGISLATION AND POLICIES UNDER DEVELOPMENT

Energy Efficiency Action Plan	
Full Title	Communication from the Commission, Action Plan for Energy Efficiency: Realising the Potential COM (2006) 545 final (19 October 2006)
Brief Outline	<p>The Action Plan follows other measures taken to increase energy savings (the 2002 Directive on Performance of Buildings, the 2004 Cogeneration Directive, the 2005 Directive on energy savings from domestic appliances, and the 2006 Directive on energy end-use efficiency and energy services).</p> <p>On 22 June 2005 the Commission opened a debate with a Green Paper on Energy Efficiency (COM(2005) 265 final), stressing on the importance of new efforts to increase energy savings in order to reduce greenhouse gases emissions and Europe's dependence on oil and gas imports and to boost competitiveness and jobs. In the Green Paper the Commission indicated as potential target savings for the 20% of its present energy consumption by 2020, obtaining half of them from the enforcement of existing legislation.</p> <p>The objective of the plan, presented in October 2006 is to "provide EU citizens with the most-energy efficient buildings, appliances, processes, cars and energy systems". It identifies 75 specific measures to be taken, indicating an implementation period of 6 years. Among the areas covered by the Action Plan:</p> <ul style="list-style-type: none"> • New energy performance standards for products as boilers, copiers, TVs and lights (from 2007) • New standards for buildings and the promotion of low energy buildings (2008-2009) • Improvement of the efficiency of power generation and distribution (2007-2008) • Measures facilitating bank financing of SMEs investing in energy efficiency (2007-2008) • Improvement the use of taxation in 2007 • Education campaigns • Improvement of energy efficiency in urban areas with the creation, in 2007, of a "Covenant of Mayors" in order to stimulate the exchange of best practices • International agreements on energy efficiency
Comments	<p>The Plan underlines the importance of minimum energy performance standards for a wide range of appliances and equipment, and for buildings and energy services. In combination with performance ratings and labelling schemes minimum performance standards represent a powerful tool for removing inefficient products from the market, informing consumers of the most efficient products and transforming the market to make it more energy efficient. Minimum performance requirements for new and renovated buildings will be developed. Very low energy consumption buildings (or passive houses) will also be promoted.</p> <p>The Plan emphasises the considerable potential for reducing losses in the generation, transmission and distribution of electricity. The Action Plan proposes targeted instruments to improve the efficiency of both new and existing generation capacity and to reduce transmission and distribution losses.</p> <p>The Action Plan on Energy Efficiency, when fully implemented, can thus improve the Union's competitiveness, improve the living standards of its citizens, boost employment and increase exports of new, energy-efficient technology. On an individual level, small changes in our energy consumption patterns will mean saving money, improving the environment and doing our share for our common European goals.</p>
Procedure	<p>The Action Plan, which will be implemented over the next five years, is in response to the urgent call from Heads of State and Government at the Spring European Council 2006 for a realistic Energy Efficiency strategy. On 23 November 2006 the Council has unanimously approved the Action Plan. It has to be stressed that the demand from Denmark, asking for the introduction of a binding annual target of 1, 15% of energy savings was rejected by the Council.</p> <p>Member States are required to submit their national energy efficiency plans to the Commission during the summer of 2007 but some Member States are expected to miss the deadline set by the Commission.</p>
Impact on co/poly-generation	<p>The Plan sees a particular role for cogeneration in</p> <ol style="list-style-type: none"> 1. "Priority Action 3: Making power generation and distribution more efficient". Minimum performance requirements and regulations for district heating and micro CHP will also be proposed as from 2007. 2. improving energy transformation: Implementation and amendment of the Cogeneration Directive, including: <ul style="list-style-type: none"> - accelerate harmonisation of the calculation methods for high-efficiency CHP (2008-



	<p>2011)</p> <ul style="list-style-type: none">- issue a mandate for a European Norm (EN) for certification of chief engineers for CHP plants (2008)- reach agreement on a harmonised electronic Guarantee of Origin (2007-2009)- propose stricter requirements for market regulators to promote CHP (2008-2011)- propose to require Member States to identify heat demand suitable for CHP (2007-2008)- propose that Member States be required to identify in national potentials waste heat potential (2007-2008)- propose minimum efficiency requirements for district heating based on new norm (2007-2008)- seek to adopt a European Norm and a minimum efficiency requirement for micro CHP (2007-2009) <p>All of the above hold particular importance to co/polygeneration stakeholders as the proposals would require Member States to ensure that the technical potential for large-scale co/polygeneration be taken into account. It remains to be seen however how ambitious the national plans will be.</p>
Website	http://ec.europa.eu/energy/action_plan_energy_efficiency/index_fr.htm

Energy-climate change package

Energy & climate change 'package'	
Full Title	An energy policy for Europe (COM (2007) 1 final)
Brief Outline	<p>The commission presented its Communication "An energy policy for Europe" (COM (2007) 1 final) on 10 January 2007. The package of proposals 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 Commission believes that when an international agreement is reached on the post-2012 framework this should lead to a 30% cut in emissions from developed countries by 2020. To further underline its commitment the Commission proposes that the European Union commits now to cut greenhouse gas emissions by at least 20% by 2020, in particular through energy measures.</p> <p>9 March 2007: EU leaders endorse key points contained in the package, agreeing on a two-year action plan (2007-2009) to launch a common energy policy. In particular they agreed on a binding target to reduce EU emissions by 20% by 2020, regardless of progress made in international negotiations for a post-Kyoto agreement and on a binding target to have 20% of the EU's overall energy consumption coming from renewables by 2020.</p>
Comments	Following the Russia-Ukrainian energy conflict, the European Union decided to take action to increase the common approach towards security of energy supply, a move backed by the Member States. The extend and detail of this process is not fully known but it is clear that the European Commission together with the Member States acknowledge the need for common action and to significantly increase cooperation in energy policies.
Procedure	<p>By end 2007: Commission to propose draft of follow-up measures including:</p> <ul style="list-style-type: none"> - Sept. 2007: Measures to ensure completion of internal market for electricity and gas - Legislative proposal to revise the EU Emissions Trading Scheme for CO2 (EU-ETS) - Strategic Energy Technology Plan - Public consultation (Green Paper) on adaptation to climate change - Progress report on national energy-savings plans <p>By spring 2008: Second Strategic European Energy Review</p> <p>2020: Target date to achieve objectives</p>
Impact on co/poly-generation	In endorsing the objective of saving 20% of the EU's energy consumption in a cost-efficient manner by 2020 as presented in the Commission's Energy Efficiency Action Plan, the European Commission intends to "continue to improve efficiency in energy generation, in particular by promoting high efficiency combined heat and power technologies".
Website	http://ec.europa.eu/energy/energy_policy/index_en.htm

Renewable energy road map	
Full Title	Renewable Energy Road Map - Renewable energies in the 21st century: building a more sustainable future (COM (2006) 848 final)
Brief Outline	<p>The proposed package will include legally binding targets, allowing each Member State the freedom to determine the best renewable energy mix for its own circumstances. At the same time and in view of reaching the overall national target, Member States will be required to establish National Action Plans outlining their specific objectives and sectoral targets for each of the renewable energy sectors - electricity, biofuels and heating and cooling.</p> <p>Furthermore, the Commission aims to remove unreasonable barriers to the integration of renewable energy sources into EU energy systems and develop and liberalise the internal electricity market, where greater transparency will also allow innovative new players to enter. It will co-operate with grid authorities, electricity regulators and the renewable industry to enable better integration of renewable energy sources into the power grid. Last but not least, it will foster better use of the Community's financial instruments, notably the structural and cohesion funds.</p> <p>In addition, the Renewable Energy Roadmap replaces the initiative on renewable heat.</p>
Comments	If the Commission's objectives are to be met, Member States will also need to change their policy to increase the use of renewable energy significantly and in all fields: electricity, transport and heating and cooling. Member States will be called upon to ensure rapid, fair and simple authorisation procedures for renewable energies, improve pre-planning mechanisms in which regions and municipalities have to



	assign suitable locations for the deployment of renewable energies and integrate renewable energies into their regional and local plans. Indeed, regional and local authorities can help reach the objectives set by this Road map considerably.
Procedure	<p>On 9 March 2007 the EU summit endorses Commission roadmap with:</p> <ul style="list-style-type: none"> - A binding target to have 20% of the EU's overall energy consumption coming from renewables by 2020, and; - as part of the overall target, a binding minimum target for each member state to achieve at least 10% of their transport fuel consumption from biofuels. However, the binding character of this target is "subject to production being sustainable" and to "second-generation biofuels becoming commercially available". <p>The Commission is expected to produce report and review the need for harmonisation of support mechanisms for renewable electricity.</p> <p>The Commission is expected (September 2007) to put forward proposal for a comprehensive directive on renewable energies.</p>
Impact on co/poly-generation	The Roadmap pledges to address main issues for renewable heating and cooling, such as binding targets, removal of barriers, grid connection and financial support measures. The 27 National Action Plans will have to outline specific objectives and targets for heating and cooling.
Website	http://ec.europa.eu/energy/energy_policy/annexes_en.htm


Biomass and Biofuels	
Full Title	Communication from the Commission - Biomass Action Plan COM(2005)0628 and Biofuels Progress Report COM(2006)845
Brief Outline	<p>Outlines policy options to enable the biomass sector (wood, biogas, biofuels) to reach the EU target of 12% of gross domestic energy production by 2010. CEC would: prepare a proposal to encourage renewable energy use (including biomass) for heating and cooling; examine amendment of the Directive on energy performance of buildings to increase incentives for renewable energy; study the potential to improve the efficiency of biomass household boilers, through the implementation of Directive on eco-design; encourage district heating schemes, and MSs to apply reduced VAT to gas and electricity for such heating. In relation to transport, CEC will: present a report in 2006 which may recommend revision of Directive on biofuels, with respect to national targets, biofuels obligations on fuel suppliers, and certification requirements; propose the promotion, through public procurement, of clean and efficient vehicles; and present a Communication on biofuels in 2006. CEC may also look into how waste legislation may be amended to facilitate the use of clean wastes as fuel.</p>
Comments	The Biomass Action Plan focuses on the treatment of biomass within Europe. Cogeneration is one of the technologies which is considered in the treatment of biomass. However, the major set back within the Biomass Action Plan is that it treats heating and cooling separately and does not consider cogeneration as a whole.
Procedure	<p>The European Parliament adopted on December 14th a resolution based on the own-initiative report drafted by Werner Langen (PPE-DE, D), welcoming the two Commission communications on the biomass action plan and on an EU strategy for biofuels. It urged support for the cost-effective and sustainable production of biomass in the areas of electricity generation, methane production, transport and heating and cooling.</p> <p>On 10 January 2007: Commission presents its 'climate change and energy package' and on 9 March 2007 EU summit endorses key points contained in the package, including:</p> <ul style="list-style-type: none"> - 20% renewable energy target for 2020 - 10% biofuels target by 2020 <p>The Commission was expected in late march to table a formal legislative proposal to increase the share of bio fuels to a minimum of 10% of the EU's transport fuel mix by 2020</p> <p>The Commission launched a consultation in order to give answer, with a questionnaire, to the following questions:</p> <ul style="list-style-type: none"> • How should a biofuel sustainability system be designed? • How should overall effects on land use be monitored? • How should the use of second-generation biofuels be encouraged? • What further action is needed to make it possible to achieve a 10% biofuel share? <p>It is possible to submit responses until Monday, 18 June 2007</p>

Impact on co/poly-generation	This plan has impact for biomass cogeneration initiatives. However, the major setback within the Biomass Action Plan is that it treats heating and cooling separately.
Website	http://ec.europa.eu/energy/res/biomass_action_plan/index_en.htm

European Strategic Energy Technology Plan	
Full Title	Towards a European strategic energy technology plan COM(2006)847
Brief Outline	<p>The Energy climate change package presented by the Commission in January 2007 proposes to develop a European Strategic Energy Technology Plan ("SET-Plan") in order to fulfil 3 key objectives:</p> <ul style="list-style-type: none"> • To lower the current cost of renewables • To facilitate the efficient use of energy • To place European industries in the leading position in low carbon technologies <p>More generally the strategic energy technology plan aims to create the conditions for the development of renewable sources in combination with better use of energy in conversion processes, in buildings, industry and transport.</p> <p>The Commission will annually invest approximately 1 billion euros between 2007 and 2013 in energy technology research and innovation.</p>
Comments	Despite the fact that the European Commission is bent on supporting research low carbon technologies, there is little indication that the forthcoming SET-Plan will cover co/polygeneration. If this holds true, this will be a set-back for the sector as the Plan is expected to drive Member States toward certain types of technologies over some others and could prove to be an important underlying element of a future common European energy policy.
Procedure	The Commission will present the first SET-Plan for the approval by the 2008 Spring European Council
Impact on co/poly-generation	In the broadest terms the SET Plan contribute to the further development of the cogeneration sector in terms of promotion of cogeneration research initiatives and market readiness/penetration of different technologies within the area.
Website	http://ec.europa.eu/energy/energy_policy/index_en.htm

ENVIRONMENT AND CLIMATE CHANGE

Air Quality: Clean Air for Europe Programme (CAFE)	
Full Title	"The Clean Air for Europe" (CAFE) Programme and proposed directive on ambient air quality and cleaner air for Europe (COM(2005) 447) final of 21 September 2005
Brief Outline	CAFE was launched in March 2001 and is a programme of technical analysis and policy development which will lead to the adoption of a thematic strategy on air pollution under the Sixth Environmental Action Programme. Its aim is to develop a long-term, strategic and integrated policy advice to protect against significant negative effects of air pollution on human health and the environment. Commission adopted the Thematic Strategy on 21 September 2005 (COM (2005) 446), targeting 5 main pollutants. According the strategy, "No further change is foreseen for combustion plants greater than 50 MWth beyond the current directives on large combustion plants", while it shall be examined whether the IPPC directive should be expanded to cover sources below 50 MWth. Moreover the Commission proposed a directive on ambient air quality and cleaner air that is currently being examined by the Council and the Parliament.
Comments	Under CAFE research is currently undertaken concerning the costs and environmental effectiveness of reducing air pollution for large and small-scale combustion installations. More specifically, the programme looks at the amounts of heavy metals emitted, the cost-effectiveness and costs and advantages of further emission reductions, the technical and economic feasibility, an inventory of existing measures and an inventory of new and emerging technologies.
Procedure	For the proposed directive: DG Environment. Responsible EP Committee: Environment, Public Health and Food Safety, EP Rapporteur: Holger Kraemer (ADLE)
Impact on co/poly-generation	As the CAFE programme deals with the emissions of air pollutants, it has relevance for the co/polygeneration sector. For air pollution (including NOx) it has developed a methodology, an Integrated Assessment Modelling and Cost-Benefit Analysis and Review and ex-Post Evaluation of current policies and measures.
Website	http://europa.eu.int/comm/environment/air/cafes/index.htm

Market-based instruments for environment and energy-related policy purposes	
Full Title	Green Paper on market-based instruments for environment and energy-related policy purposes  COM(2007)140 (28 March 2007)
Brief Outline	<p>The Green Paper on the use of market-based instruments to support energy and environment objectives was launched by Environment Commissioner Dimas and Taxation Commissioner Kovacs on 28 March 2007. The Commission believes that increased use of these instruments could be a more cost-effective way of achieving the targets formulated during the Spring European Summit than direct legislation.</p> <p>The Green Paper looks at potential areas and options for further use, highlighting also some of the following challenges:</p> <ul style="list-style-type: none"> • Can these market instruments be used without undermining EU industry competitiveness and without putting extra tax burdens on consumers? • Can the EU promote a shift from labour taxes to environmental taxes at national level? • Would a 'Market-Based instruments Forum' be useful to stimulate best practices? • How can the EU get rid of environmentally harmful subsidies? • How can the current Energy Taxation Directive be reviewed and streamlined with new energy and environmental objectives? • How can the use of market-based instruments be combined with the EU emissions-trading scheme? <p>The discussion paper also recognises that EU unanimity rules on taxation limit the potential influence of the EU on Member States.</p>
Comments	<p>Right after the successful Spring European Council that set very ambitious goals in the area of energy and climate change, the European Commission adopted on 28 March 2007 a Green Paper on the use of market-based instruments for environment and energy related policy purposes. Since market-based instruments have proven to be cost-effective means of achieving policy goals, the paper aims to stimulate a broad public debate on how taxes, tradable emissions rights and other market-based instruments can be used more widely and effectively for environmental and energy policy purposes at Community and national level. This green paper is a joint project by Commissioners Dimas and Kovács, in association with Commissioners Barrot and Piebalgs.</p> <p>The Green Paper covers a wide range of areas where market-based instruments (mainly taxes, emissions trading rights) can be further promoted, in particular in energy use, transport's impact on the environment and in other specific areas of environmental policy such as sustainable management of water, waste management, protection of biodiversity and reduction of air pollution.</p> <p>In particular it focuses on possible ways forward to make the Energy Taxation Directive more directly supportive of the Community's energy and environmental objectives.</p> <p>The Green Paper also suggests the creation of a new forum that could encourage and facilitate exchanges of experience and best practice between Member States on the use of market-based instruments and co-ordination of national approaches as well as national experiences with Environmental Tax Reforms.</p> <p>In effect, the Green paper indicates that the European Commission intends to create a coherent, holistic framework for a growing number of sectors and activities, both large (as industrial polygeneration) and small in order to drive energy efficiency and environmental sustainability. The Green Paper appears to be an indication that the Commission recognises that the Emissions Trading Scheme is limited by its design and cannot be expanded much further.</p> <p>Just as cogeneration installations happen to need special recognition under the ETS, in the upcoming consultations, it will be necessary to ensure that the contributions of high efficiency cogeneration to the EU's energy policy goals of security of supply, sustainability and competitiveness are taken into account when designing the future market-based instruments.</p>
Procedure	<p>Replies to the consultation can be sent to Green-paper-mpi@ec.europa.eu until 31 July 2007.</p> <p>The Commission intends to take the reactions on the Green Paper for the upcoming review of the Energy Taxation Directive (IP/03/1456).</p>
Impact on co/poly-generation	The document does not address cogeneration specifically but does have an impact on the way national administrations decide to financially support cogeneration by using economic or market-based instruments (MBI), such as indirect taxation and targeted subsidies for policy purposes.
Website	http://ec.europa.eu/taxation_customs/taxation/index_en.htm



Revised State Aid Guidelines for Environmental Protection	
Full Title	"Community Guidelines for Environmental State Aid" (Preliminary Draft 10.05.2007)
Brief Outline	<p>The European Commission has prepared new guidelines for state aid for environmental protection. According to these guidelines, "the primary objective of state aid control in the field of environmental protection is to ensure that state aid measures will result in a higher level of environmental protection that would not occur without the aid and to ensure that the positive effects of the aid outweigh the negative effects of the aid in term of distortions of competition, taking account of the polluter pays principle."</p> <p>While carrying the general approach of the existing community guidelines forward, the draft presented by the Commission carries some changes directly relevant to co/polygeneration project developers and operators.</p>
Provisions relevant to co/poly-generation plants	<p>It is important to note, that in order to qualify for state aid, the cogeneration plant has to satisfy the definition of high efficiency cogeneration according to Annex III of the cogeneration directive 2004/8/EC (Art. 96 of the Community Guidelines).</p> <p>Investment aid for CHP</p> <p>The intensity of investment aid shall not exceed 50% of the eligible investment costs. However, the aid for CHP given to medium-sized enterprises can increase by 10 percentage points and by 20 percentage points when given to small enterprises (Art. 97 & 98).</p> <p>Eligible costs must be limited to the extra investment costs necessary to realise a high efficiency cogeneration plant. Alternative investment that would be realised without aid must be deducted from the eligible costs (Art. 99).</p> <p>Operating aid for CHP</p> <p>Operating aid for high efficiency can be granted "to undertakings distributing electric power and heat to the public where the costs of producing such electric power or heat exceed its market price. The decision as to whether the aid is essential will take account of the costs and revenue resulting from the production and sale of the electric power or heat." It can also be granted "for the industrial use of the combined production of electric power and heat where it can be shown that the production cost of one unit of energy using that technique exceeds the market price of one unit of conventional energy. The production cost may include the plant's normal return on capital, but any gains by the undertaking in terms of heat production must be deducted from production costs." (Art. 102)</p> <p>There are two options how to grant operating aid:</p> <p><i>Option 1</i></p> <p>Operating aid may be granted to compensate for the difference between the production cost and the market price of energy.</p> <p>However, according to Art. 94b, production costs (and consequently operating aid) must be reduced for the amount of the investment aid for a new plant. Furthermore, Art. 94a states that after the plant is depreciated, it is no longer applicable for operating aid (unless a Member State can show that a fair return on capital is needed due to poor competitiveness of certain renewable energy sources).</p> <p><i>Option 2</i></p> <p>Operating aid can be granted by using market mechanisms such as green certificates or tenders. Member States must show the Commission that the system does not result in overcompensation and does not dissuade the producers from becoming more competitive. The Commission will then authorise such systems for a maximum period of ten years.</p> <p>Additional detailed assessment of aid granted</p> <p>The guidelines also require additional detailed assessment of aid granted. Art. 140 says: "In order to enable the Commission to carry out more detailed assessment for any substantial amounts of aid granted under authorized schemes and to decide whether such aid is compatible with the common market, Member States should notify it in advance of any individual case of investment or operating aid granted under an authorized scheme or individually where the aid satisfies the following conditions [...]."</p>



	<p>This provision and conditions affect cogeneration in four paragraphs. The first one, paragraph i of Art. 140, requires such detailed assessment and notification to the Commission for <u>investment aid</u> above EUR 5 million for one undertaking (applicable to all cases covered by the guidelines).</p> <p>However, the second one, (paragraph iii of Art. 140) requires such a procedure <u>only</u> for the production of renewable electricity and/or combined production of renewable heat for sites with capacity exceeding 100 MWe. This provision applies for <u>operating aid</u>.</p> <p>The third one, paragraph v of Art. 140 addresses <u>only cogeneration</u>, stating that detailed assessment and notification to the Commission is needed for <u>operating aid</u> for cogeneration installations with the capacity exceeding 200 MWe.</p> <p><u>Gas powered CHP plants</u> with annual gas consumption above 4 500 000 GJ are also subject to this procedure according to paragraph vi of Art. 140, when operating aid is granted in form of energy tax reductions/exemptions "where tax actually paid by the undertakings after reduction is below the Community minimum level or where taxes concerned are not harmonised at Community level."</p> <p>The main changes introduced by the new guidelines (compared to the existing guidelines) with regard to CHP are the following:</p> <ul style="list-style-type: none"> • Investment aid does not consider regional aid and assisted areas anymore. There is a general maximum investment aid for the whole EU (50%). • Regions that were previously outside assisted areas could be better off in the new scheme for investment aid (previously 40%, now 50% of the eligible investment costs). Some of the previously assisted areas could now be worse off, depending on the regional ceiling they could apply before. • The ceiling of investment aid for SMEs has increased from 50% of the eligible investment costs to 60% (medium-size enterprises) and 70% (small enterprises). However, in the old system this aid could be combined with regional aid in assisted areas and could therefore be even higher than new ceilings. • The definition of "extra investment costs" has changed. They were defined as the extra cost compared to the cost of a comparable conventional power plant, but stand now for the extra cost necessary to realise a high efficiency CHP plant. • For the operating aid, the new system excludes two options, i.e. aid for the avoided external costs and a five-year operating aid (either in degressive or non-degressive mode). • The remaining two options for operating aid in the new guidelines stricter are more stringent. With option 1, investment aid granted to the undertaking must be deducted from operating aid, whereas in the old system it only should have been taken into account. In option 2 the aid system will be authorised for a maximum of ten years, but there is no possibility anymore for the Commission to assess whether it needs to be continued after this period. • The new guidelines introduces the concept of detailed assessment of aid granted. There are some conditions and thresholds which are aimed directly at CHP plants (see the section above on additional detailed assessment of aid granted).
<p>Procedure</p>	<p>The draft Community guidelines for State aid for environmental protection have been published on 10 May 2007 and interested parties may submit their comments on the draft guidelines by 25 June 2007.</p> <p>The Commission has not yet given an indication as to when the final community guidelines would be adopted.</p>
<p>Impact on co/poly-generation</p>	<p>The provisions in the revised draft have significant impacts on co/polygeneration plants. Although the approach remains the same, some of the proposed changes could have an impact on the development of large-scale projects in several Member States.</p> <p>The most contentious issues are:</p> <ul style="list-style-type: none"> • The definition of eligible costs (of which a certain percentage can be covered by state aid) • The duration in time of operational support (the current draft limits operational support to the period until the plant is fully depreciated)



	<ul style="list-style-type: none">• The thresholds of 100 and 200 MWe. <p>Despite these issues, the proposed revised guidelines highlight the contribution co/polygeneration installations make toward meeting the European energy policy targets and the Commission is actively seeking input from key stakeholders in order to ensure that the final community guidelines create a strong framework for supporting co/polygeneration.</p>
Websites	<p>http://ec.europa.eu/comm/competition/state_aid/reform/guidelines_environment_en.pdf</p> <p>See also "State aid decisions on environmental aid" on http://ec.europa.eu/comm/competition/state_aid/register/ii/by_primary_obj_environmental_protection.html</p>