

# POSITION STATEMENT



# ELEMENTS NEEDED IN A DIRECTIVE ON COGENERATION

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12 November 2001

# EUROPEAN DIRECTIVE ON COGENERATION

## INTRODUCTION

COGEN Europe, the European Association for the Promotion of Combined Heat and Power, welcomes the recommendations of the ECCP and the conclusion that a Directive is necessary and urgent. Certainly, the progress towards liberalising the energy markets in Europe, which is still incomplete, has caused the CHP industry enormous problems. Current market activity, in terms of sales of new equipment, is at around 15% of what was experienced before 1999 and the opening of the electricity market. In addition to this existing CHP plants are threatened with closure. None of this is good for improving the sustainability of Europe's energy market. The loss of CHP capacity and the slow down in the implementation of new schemes increases energy use in Europe, increases CO<sub>2</sub> emissions, loses jobs and will ultimately hurt the competitiveness of the European economy as a whole.

It is also bad for Europe's security of energy supply, as the Green Paper rightly points out curbing energy demand must be the first priority as it reduces import dependence. CHP is one of the most important energy efficiency measures that all sectors of the economy can make. For example, the chemical company Akzo Nobel has reduced its specific energy consumption for each unit of product by 50% in the last 15 years. 80% of this improvement has come from implementing CHP projects. Similar examples can be found in other sectors, be it District Heating, the tertiary sector, commerce or industry.

Thus, COGEN Europe believes it is extremely necessary that the Commission comes forward with a Directive on CHP and soon.

Asking for a Directive is one thing, deciding what it needs to contain is another matter. COGEN Europe has already made a number of suggestions during the ECCP process.

In short COGEN Europe believes that a Directive on CHP should include the following items:

- A definition on CHP, covering the issue of quality;
- Indicative targets;
- An obligation to support CHP through price support schemes;
- Grid connection and reinforcement issues;
- Administrative and planning procedures;
- Certificate Trading Scheme.

The Directive should cover much of the same ground as the Directive on Electricity from Renewable Energy Sources, in that a lot of the issues, especially the interface with the electricity system, are very similar. A study COGEN Europe undertook within the auspices of the SAVE Programme (The Administrative Obstacles to the Development of Decentralised Cogeneration) identified the electrical interface issues as a fundamental barrier to widespread use of CHP in Europe.

COGEN Europe would welcome an open consultation process, similar to the one conducted for the Buildings Energy Efficiency Directive proposal. COGEN Europe considered this to be an important step in constructing consensus for the Buildings proposal and a similar exercise would be appropriate for a CHP Directive. This consultation should include European Associations, National Administrations and other stakeholders such as NGOs.

## **ELEMENTS OF A COGENERATION DIRECTIVE**

The European Commission issued a proposal for a Directive on Renewable Energy Sources, which has recently passed through the other European Institutions. Many issues covered in this proposal are common to cogeneration, and they should certainly be covered in a Cogeneration Directive.

Bearing in mind that the principle of subsidiarity should be respected, there are a number of issues that a cogeneration Directive should cover.

### **GUIDELINES TO ENSURE THAT A MINIMUM LEVEL OF QUALITY IS ACHIEVED**

National situations are so different that agreeing on a common definition for cogeneration has proven a very difficult task. However, it is necessary to achieve a system that ensures that the growth of cogeneration leads to the reduction of emissions. Systems should take into consideration the national situations regarding the energy mix. The UK quality assurance programme could be a good example to be implemented in other countries. (Further short paper will be available from COGEN Europe on this aspect).

### **NATIONAL COGENERATION TARGETS**

As specified above, the Strategy sets a target by 2010 of 18%, departing from a situation of 9% in 1994. If we look at the cogeneration share of electricity production in the EU, we see that there are large differences. Given the differences in shares as well as in further potential, the responsibility of reaching 18% for the EU as a whole can not be distributed equally. A cogeneration Directive should therefore set ambitious, but at the same time realistic targets, for each Member State, These targets should ideally be legally binding, but indicative targets would be helpful.

### **AN OBLIGATION TO SUPPORT CHP THROUGH PRICE SUPPORT SCHEMES**

The pricing issue touches several aspects:

- Cogeneration, and decentralised generation in general, avoids network losses. This is not always reflected in the prices. Further, the tariff systems for the use of the network are often inadequate for decentralised generation, as they tend to charge through a “point system” and regardless of the distance. A few Member States are beginning to tackle this issue, for example by regulating the structure of the tariff paid for electricity sold to the grid from CHP. This system is however only possible when the electricity from CHP is sold to the grid, but not so easy when it is sold to other customers or when power is used on-site only. Another possibility is to make CHP pay for the use of the network only to the extent to which this is effectively used;

- A system where environmental costs are reflected in the prices needs to be installed urgently. A possibility of doing this is through energy taxes or carbon levies. The Directive should suggest a system of tax avoidance for quality CHP;
- Back-up and top-up supplies are a major barrier to cogeneration development. A Cogeneration Directive should make sure that Member States undertake measures to ensure a fair system.

The State Aid Guidelines for Environmental Protection (2001/C 37/03), published on 3 February 2001, are supportive of the requirements to promote cogeneration and are a good step forward. What is needed now is that Member States need to use the provisions in the Guidelines to support cogeneration. The intentions of Germany and the UK in this respect are welcome and other Member States should also come forward with their own measures.

### **GRID CONNECTION AND REINFORCEMENT ISSUES**

A Cogeneration Directive should contain provisions that require Member States to ensure fair grid access, both in technical and economic terms, for cogeneration systems, especially for small ones. Some Member States, such as Germany and the Netherlands, have been successful in establishing regimes that ensure that grid connection issues are never a barrier, while countries like Spain or France do not even contemplate the possibility of connecting to the low voltage system when feeding electricity into the network.

Another issue, as more generators are connected to the grid, a grid reinforcement might be necessary. The question of who has to pay for this is not widely solved.

On the other hand, a connection of a new generator on the appropriate part of the system can actually reinforce the grid, and a reinforcement can be postponed or becomes unnecessary.

The Member States should ensure several principles:

- The full costs and benefits associated with the connection of a new cogeneration installation should be made transparent;
- The future benefits of a grid system, such as avoided or postponed reinforcement, should be taken into account;
- There should be rules foreseeing compensation payments if subsequent persons connecting to the grid benefit from a grid asset (connection or strengthening) associated with and paid for by a first person connecting to the grid;

### **ADMINISTRATIVE AND PLANNING PROCEDURES**

A common barrier, especially for small systems, are unnecessarily bureaucratic planning and administrative procedures. The barriers can derive from the length of the procedure, the burdensome and unnecessary requirements, or the high and unnecessary costs. Sometimes the Administration just takes too long to give a response and the cogeneration developer has no other choice than waiting. The

Directive should contain provisions that enforce Member States to ensure that this does not happen.

Further, polluting forms of generation should face more barriers than environmentally friendly ones.

### **SYSTEM OF CERTIFICATE OF ORIGIN**

Consumers are asking more and more for “clean” electricity and sometimes they are willing to pay more for it. It should be their right to be able to demand it, but this right can not be achieved without a convenient and reliable system of certificate of origin. The Directive should provide for a framework to encourage Member States to establish electricity labelling schemes. (See longer section below on this issue).

### **OTHER POSSIBLE ELEMENTS**

#### **NET METERING FOR MICROCOGENERATION SYSTEMS**

Net metering for micro-cogeneration systems (i.e. under 20 kWe) should be the rule, at least for a limited period of time (for example 10 years) or until a certain market share (5% of the electricity generation) is achieved.

#### **NO FUEL PRICE DISCRIMINATION**

Unfortunately, the Gas Directive introduced the possibility of establishing a threshold of minimum consumption for the eligibility of CHP producers to the liberalised gas market (25 million cubic meters of gas per year). This can be a potentially important barrier, since it can lead to higher gas prices for small CHP systems. The most important element for the economics of a CHP project, is the ratio between the electricity and gas prices. The Directive should therefore make sure that a system is introduced to avoid discrimination in this respect. The link between the oil and the gas price, does not make sense in a liberalised market and should disappear.

#### **EU COGENERATION CERTIFICATE SCHEME**

CHP remains one of the most promising technology options to achieve significant reductions in greenhouse gas emissions in Europe over the next ten to twenty years. The technology is very well developed, with low technical risk and high confidence, at most scales of application.

Despite this, there is currently no consistent and strong policy framework for the support and promotion of CHP across the EU. The well-established target of 18% of electricity generation from CHP by 2010 is indicative only, and there are a wide variety of support measures in place in different Member States, of varying effectiveness. Moreover, the emergence of fierce price competition in the newly liberalising energy markets in Europe are making it difficult for CHP to compete against the price of bulk power, which is often priced at an artificially low level.

There is great value in looking for examples of successful, novel support mechanisms for environmentally friendly energy production that work in harmony with liberalised market conditions, and which may be adapted to support CHP. Great progress has been made over the last two years in the development of novel market mechanisms for the support of renewable generation, specifically the 'Tradable Green Certificate' (TGC). Such developments in tradeable instruments have

precedents in well-developed markets for environmental credits and permits, such as sulphur and carbon emissions.

Especially noteworthy is the development of voluntary, industry-driven initiatives that aim to achieve an accelerated growth of environmentally friendly technology, at least cost to industry and to consumers. Two good examples of this are the Dutch 'Groenlabel' (green label) scheme to support renewables, and the Renewable Energy Certificate System (RECS) group developments. Other countries and regions outside of the EU are also developing such schemes, notably certain states in the US.

The green label scheme was adopted by the electricity sector in the Netherlands, within the framework of voluntarily negotiated agreements, and used green labels to account for the production, trading and consumption of renewable energy benefits. The RECS group have taken the basic concept much further, developing a practical framework for the trading of green certificates between Member States, based initially on voluntary demand for renewable electricity. Various research and promotion projects are supporting the RECS initiative, including RECerT, InTraCert and ELGREEN.

Tradeable certificate systems have the promise of delivering greater overall economic efficiency, when compared to cogeneration promotion systems without an international tradeability element. In essence, international tradeability recognises that the environmental 'benefit' of a cogeneration scheme may be consumed anywhere in the EU, regardless of where the cogeneration plant is physically located. By de-linking environmental benefit (represented in the certificate itself) and the physical energy output, financial resources may be deployed to develop cogeneration schemes in those places delivering the greatest overall economic benefit. By extension, the consumers of the environmental benefit, whether driven by purchase obligations, voluntary targets, tax exemptions or other stimuli, also achieve their objectives at least overall cost.

Furthermore, it is important to add that the adoption of international trading schemes are consistent with the wider European goal of achieving a single, harmonised market for energy.

The demand driver that seems 'cleanest' is a purchase obligation imposed on electricity retailers. The conceptual model that COGEN Europe favours the most is the intra-MS negotiated agreement approach. In brief:

- 1) the EU as a whole adopts a binding cogeneration growth target (justified by the urgent need to improve overall environmental performance in the electricity sector);
- 2) the EU-level target is conceived as an EU 'bubble' in the same manner as the Kyoto targets;
- 3) just as in Kyoto bubble negotiations, the MS sit down together and agree a division of the target among themselves;
- 4) the targets are translated into individual obligations for MS, with penalties applied to the non-achievement of the obligation;
- 5) quality criteria, validation, certificate infrastructure etc are agreed;
- 6) the scheme is implemented.