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**A5-0457/2003**

4 December 2003

**\*\*\*II**

## **RECOMMENDATION FOR SECOND READING**

on the Council common position adopting a European Parliament and Council directive on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC (10345/2/2003 – C5-0444/2003 – 2002/0185(COD))

Committee on Industry, External Trade, Research and Energy

Rapporteur: Norbert Glante

### ***Symbols for procedures***

- \* Consultation procedure  
*majority of the votes cast*
- \*\*I Cooperation procedure (first reading)  
*majority of the votes cast*
- \*\*II Cooperation procedure (second reading)  
*majority of the votes cast, to approve the common position  
majority of Parliament's component Members, to reject or amend  
the common position*
- \*\*\* Assent procedure  
*majority of Parliament's component Members except in cases  
covered by Articles 105, 107, 161 and 300 of the EC Treaty and  
Article 7 of the EU Treaty*
- \*\*\*I Codecision procedure (first reading)  
*majority of the votes cast*
- \*\*\*II Codecision procedure (second reading)  
*majority of the votes cast, to approve the common position  
majority of Parliament's component Members, to reject or amend  
the common position*
- \*\*\*III Codecision procedure (third reading)  
*majority of the votes cast, to approve the joint text*

(The type of procedure depends on the legal basis proposed by the Commission)

### ***Amendments to a legislative text***

In amendments by Parliament, amended text is highlighted in ***bold italics***. Highlighting in *normal italics* is an indication for the relevant departments showing parts of the legislative text for which a correction is proposed, to assist preparation of the final text (for instance, obvious errors or omissions in a given language version). These suggested corrections are subject to the agreement of the departments concerned.

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## PROCEDURAL PAGE

At its sitting of 13 May 2003 Parliament adopted its position at first reading on the proposal for a European Parliament and Council directive on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC (COM(2002) 415 – 2002/0185(COD)).

At the sitting of 24 September 2003 the President of Parliament announced that the common position had been received and referred to the Committee on Industry, External Trade, Research and Energy (10345/2/2003 – C5-0444/2003).

The committee had appointed Norbert Glante rapporteur at its meeting of 27 August 2002.

It considered the common position and the draft recommendation for second reading at its meetings of 1 October 2003, 26 November 2003 and 2 December 2003.

At the latter/last meeting it adopted the draft legislative resolution by 27 votes to 0, with 1 abstention.

The following were present for the vote: Jaime Valdivielso de Cué, chairman; Norbert Glante, rapporteur; Gordon J. Adam (for Massimo Carraro), Konstantinos Alyssandrakis, Sir Robert Atkins, Guido Bodrato, Giles Bryan Chichester, Nicholas Clegg, Willy C.E.H. De Clercq, Concepció Ferrer, Alfred Gomolka (for Werner Langen), Michel Hansenne, Roger Helmer (for John Purvis), Hans Karlsson, Rolf Linkohr, Marjo Matikainen-Kallström, Eryl Margaret McNally, Bill Newton Dunn (for Colette Flesch), Seán Ó Neachtain, Paolo Pastorelli, Samuli Pohjamo (for Elly Plooi-j-van Gorsel), Imelda Mary Read, Paul Rübig, Esko Olavi Seppänen, Gary Titley, Claude Turmes, Alejo Vidal-Quadras Roca and Myrsini Zorba.

The recommendation for second reading was tabled on 4 December 2003.

## DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

on the Council common position adopting a European Parliament and Council directive on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC  
(10345/2/2003 – C5-0444/2003 – 2002/0185(COD))

(Codecision procedure: second reading)

*The European Parliament,*

- having regard to the Council common position (10345/2/2003 – C5-0444/2003),
- having regard to its position at first reading<sup>1</sup> on the Commission proposal to Parliament and the Council (COM(2002) 415)<sup>2</sup>,
- having regard the Commission's amended proposal (COM(2003) 416)<sup>3</sup>,
- having regard to Article 251(2) of the EC Treaty,
- having regard to Rule 80 of its Rules of Procedure,
- having regard to the recommendation for second reading of the Committee on Industry, External Trade, Research and Energy (A5-0457/2003),

1. Amends the common position as follows;
2. Instructs its President to forward its position to the Council and Commission.

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Council common position

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Amendments by Parliament

Amendment 1  
RECITAL 2

(2) Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003<sup>1</sup> establishes common rules for the generation, transmission, distribution and supply of electricity within the internal market in electricity.

***(2) Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity provides for an important step in the completion of the internal market in electricity. At its meeting in Lisbon on 23 and 24 March 2000, the European Council called for rapid work to be undertaken to complete the internal***

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<sup>1</sup>Texts adopted on 13.5.2003, P5\_TA(2003)0202

<sup>2</sup> OJ C 291E, 26.11.2002, p. 182.

<sup>3</sup> Not yet published in OJ.

***market in both electricity and gas and to speed up liberalisation in these sectors with a view to achieving a fully operational internal market.*** Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 establishes common rules for the generation, transmission, distribution and supply of electricity within the internal market in electricity. ***In this context the development of cogeneration helps open up the European energy market, currently dominated by a small number of operators, by allowing a degree of competition into the sector.***

#### *Justification*

*It is important to show that cogeneration helps open up the European internal energy market. A reference to the relevant directives is therefore essential. The rapporteur has reintroduced Amendment 2 from the first reading.*

#### Amendment 2

##### RECITAL 3

(3) The Green Paper entitled "Towards a European strategy for the security of energy supply" points out that the European Union is extremely dependent on its external energy supplies currently accounting for 50% of requirements and projected to rise to 70% by 2030 if current trends persists. Import dependency and rising import ratios ***may*** heighten the risk of interruption to or difficulties in supply. However, security of supply should not be conceived as merely a question of reducing import dependency and boosting domestic production. Security of supply calls for a wide range of policy initiatives aimed at, inter alia, diversification of sources and technologies and improved international relations. The Green Paper emphasised furthermore that security of energy supply is essential for a future sustainable development. The Green Paper concludes

(3) The Green Paper entitled "Towards a European strategy for the security of energy supply" points out that the European Union is extremely dependent on its external energy supplies currently accounting for 50% of requirements and projected to rise to 70% by 2030 if current trends persists. Import dependency and rising import ratios heighten the risk of interruption to or difficulties in supply. However, security of supply should not be conceived as merely a question of reducing import dependency and boosting domestic production. Security of supply calls for a wide range of policy initiatives aimed at, inter alia, diversification of sources and technologies and improved international relations. The Green Paper emphasised furthermore that security of energy supply is essential for a future sustainable development. The Green Paper concludes

that the adoption of new measures to reduce energy demand is essential both in terms of reducing the import dependence and in order to limit greenhouse gas emissions. In its Resolution of 15 November 2001 on the Green Paper, the European Parliament called for incentives to encourage a shift towards efficient energy production plants, including combined heat and power.

that the adoption of new measures to reduce energy demand is essential both in terms of reducing the import dependence and in order to limit greenhouse gas emissions. In its Resolution of 15 November 2001 on the Green Paper, the European Parliament called for incentives to encourage a shift towards efficient energy production plants, including combined heat and power.

### *Justification*

*It is obvious that rising import ratios and import dependency increase the risk of supplies being interrupted. The common position presents this risk as only a possible danger. This could lead to the problem being underestimated. The rapporteur has reintroduced part of Amendment 3 from the first reading.*

### Amendment 3 RECITAL 5

(5) The increased use of cogeneration geared towards making primary energy savings ***could constitute*** an important part of the package of measures needed to comply with the Kyoto Protocol to the United Nations Framework Convention on Climate Change, and of any policy package to meet further commitments. The Commission in its Communication on the implementation of the first phase of the European Climate Change Programme identified promotion of cogeneration as one of the measures needed to reduce the greenhouse gas emissions from the energy sector and announced its intention to present a proposal for a Directive on the promotion of cogeneration in 2002.

(5) The increased use of cogeneration geared towards making primary energy savings ***is*** an important part of the package of measures needed to comply with the Kyoto Protocol to the United Nations Framework Convention on Climate Change, and of any policy package to meet further commitments. ***The European Climate Change Programme stated the necessity for a Directive on cogeneration to complement and strengthen existing measures to promote cogeneration in electricity generation.*** The Commission in its Communication on the implementation of the first phase of the European Climate Change Programme identified promotion of cogeneration as one of the measures needed to reduce the greenhouse gas emissions from the energy sector and announced its intention to present a proposal for a Directive on the promotion of cogeneration in 2002.

### *Justification*

*The various European institutions have acknowledged, in numerous directives and communications, that cogeneration is an important part of the package of measures to implement the Kyoto targets. There should therefore be a reference to the requirements of the European Climate Change Programme. The rapporteur has reintroduced Amendment 7 from the first reading.*

#### Amendment 4 RECITAL 5 A (new)

***(5a) In its resolution of 25 September 2002<sup>1</sup> on the Commission communication on the implementation of the first phase of the European Climate Change Programme<sup>2</sup>, Parliament welcomes the idea of submitting a proposal to strengthen Community measures to promote the use of combined heat and power (CHP), calls for the immediate submission of an ambitious proposal containing binding objectives and for an internationally recognised definition of CHP. Parliament also calls for prompt adoption of the Directive on the promotion of CHP.***

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<sup>1</sup> OJ C 273 E, 14.11.2003, p. 172

<sup>2</sup> COM(2001) 580

### *Justification*

*This report on the implementation of the first stage of the ECCP already makes clear Parliament's demands concerning a Commission proposal on the promotion of cogeneration. This is Amendment 5 from the first reading.*

#### Amendment 5 RECITAL 6

(6) The importance of cogeneration was also recognised by the Council Resolution of 18 December 1997 and by the European Parliament Resolution of 15 May 1998 on a Community strategy to promote

(6) The importance of cogeneration was also recognised by the Council Resolution of 18 December 1997 and by the European Parliament Resolution of 15 May 1998 on a Community strategy to promote combined heat and power, ***in which a***



combined heat and power.

***doubling of the share of total gross power production in the Community represented by cogeneration, from 9% to 18%, is regarded as realistic.***

*Justification*

*A reference to what was regarded at the time as realistic is significant for the decision to be made now, at least in terms of providing guidance. This amendment reintroduces Amendments 6 and 7 from the first reading.*

Amendment 6  
RECITAL 6 a (new)

***(6a) The Sixth Environmental Action Programme of the European Community of 22 July 2002 (Decision No 1600/2002/EC of the European Parliament and of the Council<sup>1</sup>), which sets out the Community's strategic approach to environmental protection, regards climate change as one of the key priorities. The priority areas for action on tackling climate change include the reduction of greenhouse gas emissions, which is to be achieved by introducing, among other measures, incentives to increase combined heat and power and implement measures aimed at doubling to 18% the overall share of combined heat and power in the total gross electricity generation throughout the Community as a whole.***

***<sup>1</sup>OJ L 242, 10.9.2002, p. 1.***

*Justification*

*The reference to the Environment Action Programme adopted in July 2002 completes the list of reference documents already mentioned which already stress the importance of boosting the share of cogeneration as an environmental policy instrument. This amendment reintroduces Amendment 9 from the first reading.*

Amendment 7  
RECITAL 6 b (new)

***(6b) Because insufficient progress has been made in increasing the share of cogeneration in the Community so far, the target date should be postponed to 2012.***

*Justification*

*Since the target of doubling the share of cogeneration from 9% in 1994 to 18% in 2010 was set, its share in Europe has increased only minimally. It is therefore unlikely that the target will be reached by 2010. This amendment reintroduces Amendment 8 from the first reading.*

Amendment 8  
RECITAL 14

(14) ***In the long term***, the general objective of this Directive ***should be*** to establish a harmonised calculation of electricity from cogeneration, taking into account methodologies such as currently under development by European Standardisation Organisations.

(14) The general objective of this Directive ***is*** to establish, ***not more than two years after it enters into force***, a harmonised calculation of electricity from cogeneration ***and guidelines for the implementation and application of Annex II of this Directive***, taking into account methodologies such as *those* currently under development by European standardisation organisations.

*Justification*

*Where a harmonised calculation method is concerned, the common position refers to a long-term objective. This runs counter to the Directive's provisions concerning the guarantee of origin, which is to be introduced six months after the harmonised reference values are presented (not more than two years after the Directive enters into force) on the basis of a harmonised calculation method in accordance with Annex II to the Directive. It therefore makes sense to set a deadline for the presentation of a harmonised calculation method and of guidelines for its implementation. This recital is new in the common position, so that an amendment by the rapporteur is permissible.*

Amendment 9  
Recital 14 a (new)

***(14a) The calculation method for energy from cogeneration must be sufficiently precise, easy to follow, harmonised at European level and adjustable to take account of technical progress, and must avoid unnecessary administrative effort***

***and distortions on the internal energy market.***

*Justification*

*The harmonised calculation method should be presented by the Commission using the procedure laid down in Article 14 of the Directive, taking into account the results from the CEN/CENELEC workshop. This recital is intended to anchor the presentation by the Commission in a context providing political direction. This amendment reintroduces Amendments 13 and 78 from the first reading.*

Amendment 10  
Recital 15

<b><i>(15) The definitions of cogeneration and of high-efficiency cogeneration used in this Directive do not prejudice the use of different definitions in national legislation, for purposes other than those set out in this Directive. It is appropriate to borrow in addition the relevant definitions contained in Directive 2003/54/EC and in Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market.</i></b>	<b><i>Deleted</i></b>
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*Justification*

*The purpose of this Directive is to create framework conditions for the promotion of cogeneration in the internal market in energy. In order to achieve this, the fundamental requirement is a harmonised definition of cogeneration throughout Europe. There is consequently no point here in allowing the possibility of using other definitions of cogeneration. This amendment reintroduces Amendment 14 from the first reading.*

Amendment 11  
RECITAL 16

<b><i>(16) Measuring the useful heat output at the point of production of the cogeneration plant underlines the need to ensure that advantages of the cogenerated useful heat are not lost in high heat losses</i></b>	<b><i>Deleted</i></b>
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*from distribution networks.*

*Justification*

*This recital has been newly introduced by the Council and raises more questions than it answers. It is not clear who is responsible or how heat losses from distribution networks are to be avoided. Since the recital is not reflected in any of the articles, either, it should be deleted. Since the recital is new, its deletion is permissible.*

Amendment 12  
RECITAL 18

(18) For the purpose of this Directive, the definition of "cogeneration units" may also include equipment ***where it is possible to generate*** only electrical energy or only thermal energy, such as auxiliary firing and *after burning* units. The output from such equipment should not be considered as cogeneration for issuing a guarantee of origin and for statistical purposes.

(18) For the purpose of this Directive, the definition of "cogeneration units" may also include equipment ***in which*** only electrical energy or only thermal energy ***can be generated***, such as auxiliary firing and *after-burning* units. The output from such equipment should not be considered as cogeneration for issuing a guarantee of origin and for statistical purposes.

*Justification*

*The wording of the common position is not clear. The object is to describe electricity generated in equipment forming part of a cogeneration unit which can generate only heat or only power as not being cogenerated electricity. This lack of clarity should be removed. Since the recital is new in the common position it is permissible to amend it.*

Amendment 13  
RECITAL 22 a (new)

***(22a) In collecting statistics Member States are encouraged to analyse and monitor the amount of cogenerated electricity produced and consumed by the producer himself. Member States should be aware that even if such production is not visible, in the sense that it is sold or transmitted through the grid, it should be considered and counted as cogeneration. To establish a full overview of cogenerated production this type of production must be taken into account.***

### *Justification*

*Cogenerated electricity produced and consumed by the producer could be regarded as hidden production if it is not counted and taken into consideration. This amendment reintroduces Amendment 17 from the first reading.*

#### Amendment 14 RECITAL 25

(25) Member States operate different mechanisms of support for cogeneration at the national level, including investment aid, tax exemptions or reductions, green certificates and direct price support schemes. One important means to achieve the aim of this Directive is to guarantee the proper functioning of these mechanisms, until a harmonised **Community** framework is put into operation, in order to maintain investor confidence. The Commission intends to monitor the situation and report on experiences gained with the application of national support schemes.

(25) Member States operate different mechanisms of support for cogeneration at the national level, including investment aid, tax exemptions or reductions, green certificates and direct price support schemes. One important means to achieve the aim of this Directive is to guarantee the proper functioning of these mechanisms, until a harmonised **support** framework **at European level** is put into operation, in order to maintain investor confidence. The Commission intends to monitor the situation and report on experiences gained with the application of national support schemes.

### *Justification*

*The wording of the common position is not clear. What is meant is the introduction of a harmonised support framework. Since the sentence to which the amendment relates has been newly introduced by the Council, amending it is permissible.*

#### Amendment 15 RECITAL 26

(26) For the transmission and distribution of electricity from *high efficiency* cogeneration, the provisions of Article 7(1), (2) and (5) of Directive 2001/77/EC as well as relevant provisions of Directive 2003/54/EC should apply. Until the cogeneration producer is an eligible customer under national legislation within the meaning of Article 21(1) of Directive 2003/54/EC, tariffs related to the purchase of additional electricity

(26) For the transmission and distribution of electricity from *high-efficiency* cogeneration, the provisions of Article 7(1), (2) and (5) of Directive 2001/77/EC as well as relevant provisions of Directive 2003/54/EC should apply. Until the cogeneration producer is an eligible customer under national legislation within the meaning of Article 21(1) of Directive 2003/54/EC, tariffs related to the purchase of additional electricity

sometimes needed by cogeneration producers should be set according to objective, transparent and non-discriminatory criteria. Especially for *small scale* cogeneration units access to the grid system of electricity produced from *high efficiency* cogeneration *may* be facilitated ***subject to notification to the Commission.***

sometimes needed by cogeneration producers should be set according to objective, transparent and non-discriminatory criteria. Especially for *small-scale and micro*-cogeneration units access to the grid system of electricity produced from *high-efficiency* cogeneration ***should*** be facilitated.

#### *Justification*

*In accordance with what Parliament called for at first reading (Amendment 52), in addition to small-scale cogeneration units (up to 1 MW<sub>e</sub>) micro-cogeneration units (up to 50 kW<sub>e</sub>) should have easier access to the grid for their electricity.*

#### Amendment 16 ARTICLE 1

The purpose of this Directive is to increase energy efficiency and improve security of supply by creating a framework for promotion and development of *high efficiency* cogeneration of heat and power based on useful heat demand and primary energy savings in the internal energy market, taking into account the specific national circumstances especially concerning climatic and economic conditions.

The purpose of this Directive is to increase energy efficiency and improve security of supply by creating a framework for promotion and development of *high-efficiency* cogeneration of heat and power based on useful heat demand and primary energy savings in the internal energy market ***and laying down measures to increase the share of high-efficiency cogeneration in the Community's total gross power production***, taking into account the specific national circumstances especially concerning climatic and economic conditions.

#### *Justification*

*It should be made clear that the Directive is also intended to increase the share of high-efficiency cogeneration in Europe. Such an increase will only come about through practical measures (which also form part of this Directive), such as arrangements regarding grid access for cogenerated electricity, supported by the rules on renewable forms of energy, or the particular promotion of micro-cogeneration in the form of decentralised supply units, which have very great potential for the application of cogeneration. This amendment reintroduces Amendment 20 from the first reading.*

Amendment 17  
ARTICLE 3, POINT a

(a) "cogeneration" shall mean the simultaneous generation in one process of thermal energy and electrical and/or mechanical energy;

(a) "cogeneration" shall mean the simultaneous generation in one process of thermal energy and electrical and/or mechanical energy; ***"simultaneous" shall mean that the energy content of a process medium (gas or steam) within a thermodynamic process is used both for power and for heat production (cogeneration process);***

*Justification*

*The definition in the common position is inadequate. The definition of simultaneity is needed to ensure that the entire energy content of the process medium is used for the cogeneration process, and that no part of the heat is emitted unused into the environment. This amendment reintroduces part of Amendment 21 from the first reading.*

Amendment 18  
ARTICLE 3, POINT a a (new)

***(aa) "micro-cogeneration" shall mean cogeneration of energy output lower than 50 kW<sub>e</sub>;***

*Justification*

*Industry in Europe, Japan and the US believes that micro-cogeneration (up to 50 kW<sub>e</sub>) represents a totally new market for cogeneration. If properly promoted, it could flow into the residential and commercial sectors. The Directive, however, does not recognise the special nature of micro-cogeneration and does not introduce specific provisions for it. In order to do so, one needs first a clear definition of what micro-cogeneration means. The amendment provides the reader with such a definition. This amendment reintroduces Amendment 23 from the first reading.*

Amendment 19  
ARTICLE 3, POINT a b (new)

***(ab) "efficient micro-cogeneration" shall mean micro-cogeneration with certified overall efficiency of at least 80%;***

### *Justification*

*This amendment draws a clear distinction between efficient and inefficient micro-cogeneration. This amendment reintroduces Amendment 83 from the first reading.*

### Amendment 20 ARTICLE 3, POINT b

(b) "useful heat" shall mean heat produced in a cogeneration process to satisfy an economically justifiable demand for heat or cooling;

(b) "**cogenerated** useful heat" shall mean heat produced in a cogeneration process to satisfy an economically justifiable demand for heat or cooling;

### *Justification*

*An expansion of the definition in the common position provides greater precision and ensures consistency with the formula in Annex II. Cogenerated useful heat is the corollary to cogenerated electricity.*

### Amendment 21 ARTICLE 3, POINT d

(d) "electricity **from cogeneration**" shall mean electricity generated in a process **linked to the production** of useful heat and calculated in accordance with the methodology laid down in Annex II;

(d) "**cogenerated** electricity" shall mean electricity generated in a process **preceding** the **use of all the corresponding** useful heat and calculated in accordance with the methodology laid down in Annex II;

### *Justification*

*In order to rule out misinterpretation and abuse it is important to aim at use of all the heat. This definition fits in with the definition in point a of the same article, and takes up the intention expressed in Amendment 25 from the first reading.*

### Amendment 22 ARTICLE 3, POINT i

(i) "**high efficiency cogeneration**" shall mean cogeneration meeting the criteria of Annex III(a);

(i) "**high-efficiency cogeneration**" shall mean cogeneration meeting the criteria of Annex III;

### *Justification*

*It is not just the criteria in Annex III(a) which should be the determining factor for the*



*definition of high-efficiency cogeneration. The formula for calculating primary energy savings is a vital element in that definition. This amendment is permissible because this restriction appears for the first time in the common position.*

Amendment 23  
ARTICLE 3, POINT k

(k) "power to heat ratio" shall mean the ratio between electricity from cogeneration and useful heat when operating **at full capacity in** cogeneration mode using operational data of the specific unit;

(k) "power to heat ratio" shall mean the ratio between **net** electricity from cogeneration and **net cogenerated** useful heat when operating **in** full cogeneration mode using operational data of the specific unit;

*Justification*

*The power to heat ratio should be calculated on the basis of net values, since otherwise, for instance, electricity which is needed for the producer's own consumption might also be categorised as cogenerated electricity. Net values therefore reduce the risk of abuse. This amendment reflects Amendment 32 from the first reading. The change concerning 'im vollständigen KWK-Betrieb' has a linguistic background. In the English version this is 'when operating at full capacity' and in the German version 'bei voller Leistung'. However, 'when operating at full capacity' can also be translated as 'bei Vollast', which would be contrary to the principle of 'economically justifiable demand'. The wording can be interpreted differently depending on the language version, which is unsatisfactory. The wording 'im vollständigen KWK-Betrieb/in full cogeneration mode', however, is sufficiently precise to ensure a single interpretation. This amendment is permissible because this wording appears for the first time in the common position.*

Amendment 24  
ARTICLE 3, POINT la (new)

**(la) "micro-cogeneration unit" shall mean cogeneration units with a capacity lower than or equal to 50 kW<sub>e</sub> and with an overall efficiency of at least 80% guaranteed/certified by the producer of the cogeneration unit.**

**Most micro-cogeneration systems currently in development range in size from 1 to 50 kW<sub>e</sub>. However, provision should also be made in this category for larger systems, as it is probable that systems (up to 200 kW<sub>e</sub>) based on the same principle (standardised, serially**

***produced and subject to type approval) will be needed (particularly in warmer regions) and will provide a valuable contribution to the requirement to reduce energy and emissions;***

*Justification*

*Micro-cogeneration has a special position among cogeneration units. Micro-cogeneration units are an important part of decentralised energy supply, becoming increasingly important in view of security of supply. Especially for regions in fringe territories or islands, but also for small users for whom other installations would demand bigger investment, cogeneration is becoming increasingly important. This wording makes allowances for the development of larger systems (up to 200 kW<sub>e</sub>) based on the same principle (standardised, serially produced and subject to type approval) to be included in the micro-cogeneration category. These larger units are expected to operate at higher efficiency and could provide cooling as well as heat and power. This amendment reintroduces Amendment 34 from the first reading.*

Amendment 25  
ARTICLE 3, POINT m a (new)

***(ma) "cogeneration installation" shall mean an installation intended principally for cogeneration processes within the meaning of point (a) above. A cogeneration installation may have segments in which only electrical energy or only thermal energy is generated. The output from such segments shall not be considered cogeneration for the purpose of this Directive;***

*Justification*

*The common position has deleted the definition of 'cogeneration installation', yet the term appears in several recitals and also in an amendment concerning the calculation of primary energy savings. The definition is therefore necessary. This amendment reintroduces Amendment 35 from the first reading.*

Amendment 26  
ARTICLE 4, PARAGRAPH -1 (new)

***-1. This article does not apply to efficient micro-cogeneration, which is regarded as***

***an efficient process.***

*Justification*

*Micro-cogeneration qualifies as being efficient if the installation can demonstrate certified efficiency of at least 80%. For such 'efficient micro-cogeneration' there is no need for additional qualification through the calculation of primary energy savings. For this reason there is also no need for harmonised reference values for the calculation of primary energy savings. This exception does not apply to micro-cogeneration as such, but only to 'efficient micro-cogeneration'. This amendment reintroduces Amendments 41 and 42 from the first reading.*

Amendment 27  
ARTICLE 4, PARAGRAPH 1

1. For the purpose of determining the efficiency of cogeneration in accordance with Annex III, the Commission shall, in accordance with the procedure referred to in Article 14(2), not later than .....\*, establish harmonised efficiency reference values for separate production of electricity and heat. These harmonised efficiency reference values shall consist of a matrix of values differentiated by relevant factors, including year of construction, fuel ***mix and climate conditions***, and must be based on a well-documented analysis taking *inter alia* into account data from operational use under realistic conditions, cross-border exchange of electricity, as well as applied cogeneration technologies ***in accordance with the principles in Annex III.***

\*

1. For the purpose of determining the efficiency of cogeneration in accordance with Annex III, the Commission shall, in accordance with the procedure referred to in Article 14(2), not later than .....\*, establish harmonised efficiency reference values for separate production of electricity and heat. These harmonised efficiency reference values shall consist of a matrix of values differentiated by relevant factors, including year of construction ***and types of*** fuel, and must be based on a well-documented analysis taking into account *inter alia* data from operational use under realistic conditions, cross-border exchange of electricity, ***fuel mix and climate conditions***, as well as applied cogeneration technologies.

\*

*Justification*

*This amendment reintroduces parts of Amendment 42 from the first reading and supplements the common position by adding major elements to those involved in the analysis underpinning the harmonised reference values.*

Amendment 28  
ARTICLE 5, PARAGRAPH -1 (new)

***-1. The provisions of paragraph 1 do not apply to efficient micro-cogeneration units.***

*Justification*

*Efficient micro-cogeneration is involved if a cogeneration unit (up to 50 kW<sub>e</sub>) can prove 'certified overall efficiency of 80%'. Certification is carried out by the manufacturer. There is therefore no longer any reason to demand additionally a guarantee of origin for efficient micro-cogeneration. For practical reasons it would also make no sense to make each individual household responsible for such proof. This amendment reintroduces Amendment 38 from the first reading.*

Amendment 29  
ARTICLE 5, PARAGRAPH 2

2. Member States **may** designate one or more competent bodies, independent of generation and distribution activities, to supervise the issue of the guarantee of origin referred to in paragraph 1.

***2. No later than two years after the entry into force of this Directive*** Member States **shall** designate one or more competent bodies, independent of generation and distribution activities, to supervise the issue of the guarantee of origin referred to in paragraph 1.

*Justification*

*This amendment is not intended to mean that the Member States must set up such a body from scratch. A body to supervise the issue of the guarantee of origin may certainly be designated within a Member State's existing structures. The important point is that that body is designated, that it is entrusted with the task of issuing the guarantee of origin, and that it is known to be a supervisory body and contact for dialogue with cogeneration generators. This amendment reintroduces the proposal by the Commission to stipulate that such a body be designated, which was approved by Parliament at first reading. It is also necessary to adapt the provision at second reading in line with the timetable laid down by the common position with regard to the guarantee of origin.*

Amendment 30  
ARTICLE 5 a (new)

***Article 5 a***

***Targets and timetable***

***1. The EU and each individual Member State shall achieve a cogeneration electricity output of at least 18% of the***

*respective EU and national total electricity output by 2012.*

*2. Each Member State which has already achieved a cogeneration electricity output higher than 18% of its 1997 national total electricity output shall not reduce its cogeneration share by 2012.*

*3. Member States shall establish targets for cogeneration in 2012, 2015 and 2020, as a share of national electricity output within two years of the entry into force of this Directive. These targets shall be reported to the Commission.*

#### *Justification*

*The purpose of the Directive must be to provide a framework to increase cogeneration, together with energy efficiency measures which should reduce CO<sub>2</sub> and other greenhouse gas emissions. The target of 18% of total electricity output to be provided by cogeneration was set as long ago as 1997, but was not made binding. Its share has not markedly increased since then, which is also attributable to the non-binding nature of the target. This amendment reintroduces Amendments 43 and 84 from the first reading.*

#### Amendment 31 ARTICLE 6, PARAGRAPH 1

1. Member States shall establish an analysis of the national potential for the application of high-efficiency cogeneration.

1. Member States shall establish an analysis of the national potential for the application of high-efficiency cogeneration, ***including efficient micro-cogeneration, taking into account the aim of achieving the maximum possible energy and CO<sub>2</sub>- savings from cogeneration in each Member State.***

#### *Justification*

*The amendment clarifies on the one hand that micro-cogeneration should not be forgotten when Member States are evaluating their national cogeneration potential and, on the other hand, that energy and CO<sub>2</sub> savings are also part of the cogeneration Directive objectives.*

#### Amendment 32 ARTICLE 6, PARAGRAPH 3

3. Member States shall for the first time not later than ..... \* and thereafter every **four** years, following a request by the Commission at least six months before the due date, evaluate progress towards increasing the share of high-efficiency cogeneration.

3. Member States shall for the first time not later than ..... \* and thereafter every **two** years, following a request by the Commission at least six months before the due date, evaluate progress towards increasing the share of high-efficiency cogeneration. ***Member States shall also evaluate measures taken to promote cogeneration and indicate to what extent the measures are consistent with national climate change targets.***

#### *Justification*

*An interval of four years between evaluations of progress towards increasing the share of cogeneration is too long to permit ongoing checks on success which are intended to be a basis for practical measures. The Member States should therefore submit a report on the progress achieved every two years, and at the same time indicate national climate protection targets. This amendment reintroduces parts of Amendment 47 from the first reading. The last sentence is a requirement forming part of the Commission proposal which Parliament adopted at first reading.*

#### Amendment 33

#### ARTICLE 6, PARAGRAPH 3 a (new)

***3 a. Using the reports on national potential for high-efficiency cogeneration the Commission shall assess the extent to which the Member States have made progress in achieving the national targets and national potential for high-efficiency cogeneration. The Commission shall publish, no later than four years after the entry into force of this Directive, and at two-yearly intervals thereafter, its conclusions in the report pursuant to Article 11. Should the Commission find that the measures taken do not result in progress towards the objective stated in Article 5a, it shall propose effective measures to the European Parliament and the Council.***

### *Justification*

*The reports from the Member States and the Commission are an important foundation for assessing progress towards achieving the aim of increasing cogeneration in Europe. The reports must therefore be submitted regularly, without lengthy intervals between them. If the Member States do not manage by their own motivation to achieve the stated objective, it must be regarded as appropriate for the Commission to decide on the implementation of the Community objective at Community level. This amendment reintroduces parts of Amendments 49 and 85 from the first reading.*

### Amendment 34

#### ARTICLE 7, PARAGRAPH 1 a (new)

***1a. When drafting the national support schemes Member States shall give consideration to the criteria in Annex IVa of this Directive.***

### *Justification*

*At first reading Parliament voted in favour of a list of criteria for the definition of support schemes for high-efficiency systems (Annex IVa (new), Amendment 74). This amendment creates a link between that annex and the article on national support schemes.*

### Amendment 35

#### ARTICLE 8, PARAGRAPH 1 a (new)

***1a. Member States shall establish a legal framework, or require transmission system operators and distribution system operators to formulate and publish standard rules, on the bearing of the costs of technical adaptations, such as grid connections and grid reinforcements, which are necessary in order to integrate new producers feeding into the grid electricity produced from cogeneration.***

### *Justification*

*This amendment is analogous to Article 7(2) of Directive 2001/77/EC. The need to formulate this amendment arises, first, from the fact that the wording is adjusted to fit this cogeneration Directive and, secondly, from the fact that the following amendment refers to this paragraph. This amendment is permissible because it reintroduces the text of the Commission proposal (Article 5(2)) which was approved by Parliament at first reading.*

Amendment 36  
ARTICLE 8, PARAGRAPH 1 b (new)

***1 b. Member States may require transmission system operators and distribution system operators to bear, in full or in part, the costs referred to in paragraph 1a, in particular for micro-cogeneration units, where system operators should bear any such costs in full.***

*Justification*

*This amendment is analogous to Article 7(3) of Directive 2001/77/EC. However, the aim is also to emphasise the special treatment of micro-cogeneration. For this reason a reference to the Directive on renewable energy is insufficient. This amendment reintroduces Amendment 52 from the first reading.*

Amendment 37  
ARTICLE 8, PARAGRAPH 1 c (new)

***1 c. Member States shall ensure that the charging of transmission and distribution fees does not discriminate against electricity from cogeneration. Where appropriate, Member States shall put in place a legal framework or require transmission system operators and distribution system operators to ensure that fees charged for the transmission and distribution of electricity from installations using cogeneration reflect realisable cost benefits resulting from the installation's connection to the network. Such cost benefits may arise from the direct use of the low-voltage grid.***

*Justification*

*This amendment is analogous to Article 7(6) of Directive 2001/77/EC, but the wording has to be adjusted to fit this cogeneration Directive. For this reason a reference to the Directive on renewable energy is insufficient.*



Amendment 38  
ARTICLE 8, PARAGRAPH 2 a (new)

***2a. The bodies designated by the Member States pursuant to Article 23(1) and Article 23(1) of Directive 2003/54/EC shall monitor, pursuant to Article 23, paragraph 1(f) of that Directive, the tariffs and conditions offered to cogeneration producers for the purchase of back-up electricity and/or top-up electricity or for the sale of excess electricity, and shall compare these with guideline values. Three years after the entry into force of the Directive, and at three-yearly intervals thereafter, the competent body shall publish a report on the results of that analysis. That report shall be forwarded to the Commission.***

*Justification*

*This amendment reintroduces Article 8(7) of the Commission proposal, which was approved by Parliament at first reading. The text has been adjusted, however, to take account of the adoption of Directive 2003/54/EC in the summer of 2003.*

Amendment 39  
ARTICLE 8, PARAGRAPH 3

***3. Subject to notification to the Commission, Member States may particularly facilitate access to the grid system of electricity produced from high efficiency cogeneration from small scale cogeneration units.***

***3. Member States shall particularly facilitate access to the grid system of electricity produced from high-efficiency cogeneration from small-scale cogeneration units and cogeneration units using renewable energy sources, in particular by requiring transmission and distribution system operators to connect sub-1MW<sub>e</sub> systems to the electricity grid without imposing excessive connection fees or other impediments. Costs and administrative burdens should be reduced to an absolute minimum for these units and fair compensation should be paid for excess electricity sold to the grid. Member States shall ensure that access to the grid system of electricity produced from cogeneration units of less than 50 kW<sub>e</sub>***

*using renewable energy sources and efficient micro-cogeneration units is free of charge. The selling of electricity from these units to the grid shall be fixed at a minimum price equivalent to the household electricity purchase value.*

*Justification*

*Grid connection issues and problems with the sale of excess electricity have proved a barrier for innovative small-scale cogeneration systems and bureaucracy can be a significant disincentive to potential users. The administrative burden on small-scale systems must be lightened to permit the introduction of environmentally superior cogeneration technologies. In addition, in the case of micro-cogeneration units there exists no apparent reason why serially produced units for which the manufacturer has obtained type certification approval should not be treated by regulations in exactly the same way as, for example, existing boiler technology. It is impractical to expect small customers, such as individual householders and small businesses, to bear the cost of connection to the grid. This amendment reintroduces Amendment 54 from the first reading, slightly adjusted on grounds of consistency.*

Amendment 40

ARTICLE 9, PARAGRAPH 1, point a

(a) encouraging the design of cogeneration units to match economically justifiable demands for useful heat output and ***avoiding*** production of ***more*** heat ***than useful heat***;

(a) encouraging the design of cogeneration units to match economically justifiable demands for useful heat output and ***resulting in fuel savings compared with the separate*** production of heat ***and electricity***;

*Justification*

*An overt reference to fuel savings compared with separate production brings the desired aim more clearly into focus. This amendment reintroduces Amendment 55 from the first reading.*

Amendment 41

ARTICLE 9, PARAGRAPH 2 a (new)

***2a. Member States and their respective planning authorities at regional and local level should incorporate within their guidelines for planning procedures a requirement to:***

***(a) consider the scope for developing district heating networks to utilise the***

*useful heat production of new and existing cogeneration units;*

*(b) evaluate the technical and economic viability of cogeneration and cogeneration linked to district heating.*

*All planning proposals considered by the planning authorities must:*

*(a) demonstrate that an economic and technical analysis has been undertaken,*

*(b) present a rationale for any decision over whether or not cogeneration will be included in the scope of the proposal, and the extent to which cogeneration will be used to meet the useful heat demand.*

#### *Justification*

*In order to maximise the potential for the utilisation of high-efficiency cogeneration, it is vital that planning authorities, industry and public- and private-sector developers understand the opportunities that are available to exploit the technology in meeting useful heat demand. The Directive should therefore provide statutory backing to include consideration of the opportunities for high-efficiency cogeneration in the planning framework. This statutory backing is essential in providing accurate assessments of national potential for high-efficiency cogeneration, as required under Article 6. This amendment reintroduces Amendment 56 from the first reading.*

#### Amendment 42 ARTICLE 10, PARAGRAPH 2

2. Member States shall not later than ..... \*  
and thereafter every **four** years, following a  
request by the Commission at least six  
months before the due date, publish a  
report with the result of the evaluation  
referred to in Article 6(3).

---

\*

2. Member States shall not later than ..... \*  
and thereafter every **two** years, following a  
request by the Commission at least six  
months before the due date, publish a  
report with the result of the evaluation  
referred to in Article 6(3).

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\*

#### *Justification*

*An interval of four years between evaluations of progress towards increasing the share of cogeneration is too long to permit ongoing checks on success which are intended to be a basis for practical measures. This amendment reintroduces Amendment 60 from the first reading.*

Amendment 43  
Article 11, paragraph 1, introductory phrase

On the basis of the reports submitted pursuant to Article 10, the Commission shall review the application of this Directive and submit to the European Parliament and to the Council not later than ..... \* and thereafter every **four** years, a progress report on the implementation of this Directive. In particular, the report shall:

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\*

On the basis of the reports submitted pursuant to Article 10, the Commission shall review the application of this Directive and submit to the European Parliament and to the Council not later than ..... \* and thereafter every **two** years, a progress report on the implementation of this Directive. In particular, the report shall:

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\*

*Justification*

*The reports from the Member States and the Commission are an important foundation for assessing progress towards achieving the aim of increasing cogeneration in Europe. The reports must therefore be submitted regularly, without lengthy intervals between them. This amendment ensures consistency with the requirements of Article 6(3a) (new) of this Directive.*

Amendment 44  
ARTICLE 12, PARAGRAPH 1

1. ***Until the end of 2010*** and subject to prior approval by the Commission, Member States may use other methods than the one provided for in Annex II(b) to subtract possible electricity production not produced in a cogeneration process from the reported figures. However, for the purposes referred to in Article 5(1) and in Article 10(3), the quantity of electricity from cogeneration shall be determined in accordance with Annex II.

1. ***For not more than two years after the Directive enters into force*** and subject to prior approval by the Commission, Member States may use other methods than the one provided for in Annex II(b) to subtract possible electricity production not produced in a cogeneration process from the reported figures. However, for the purposes referred to in Article 5(1) and in Article 10(3), the quantity of electricity from cogeneration shall be determined in accordance with Annex II.

*Justification*

*Over and above the over-arching energy and environmental policy objectives of this Directive, the intention is for it to create a uniform basis for the definition of cogeneration which will in future provide the foundation for a European support framework for cogeneration. It is therefore baffling why, where the two most important aspects are concerned, namely the calculation of cogeneration in accordance with Annex II and the categorisation of cogeneration as high-efficiency using the calculation for primary energy*

*savings in Annex III, alternative calculation methods should be permitted on a long-term basis or for an unlimited period. Such alternatives should be retained only for a two-year transitional period, until the Commission provides the harmonised reference values for calculating primary energy savings and a uniform calculation method, with guidelines. From that point on, a uniform approach will be guaranteed within the European Union, and should therefore also be a requirement. The alternative calculation methods have been newly introduced in the common position, and an amendment is therefore permissible.*

Amendment 45  
ARTICLE 12, PARAGRAPH 2

2. Member States may calculate primary energy savings from a production of heat and electricity and mechanical energy according to Annex III(c), without using Annex II to exclude the non-cogenerated heat and electricity parts of the same process. Such a production can be regarded as *high efficiency* cogeneration provided it fulfils the efficiency criteria in Annex III(a) and, for cogeneration units with an electrical capacity larger than 25 MW, the overall efficiency is above **70%**. However, specification of the quantity of electricity from cogeneration produced in such a production, for issuing a guarantee of origin and for statistical purposes, shall be determined in accordance with Annex II.

**2. For not more than two years after the Directive enters into force** Member States may calculate primary energy savings from a production of heat and electricity and mechanical energy according to Annex III(c), without using Annex II to exclude the non-cogenerated heat and electricity parts of the same process. Such a production can be regarded as *high-efficiency* cogeneration provided it fulfils the efficiency criteria in Annex III(a) and, for cogeneration units with an electrical capacity larger than 25 MW, the overall efficiency is above **80%**. However, specification of the quantity of electricity from cogeneration produced in such a production, for issuing a guarantee of origin and for statistical purposes, shall be determined in accordance with Annex II.

*Justification*

*See justification relating to Article 12(1).*

*The efficiency threshold of 70% is set too low for the current state of technology. For cogeneration to qualify as high-efficiency, efficiency of at least 80% must be achieved. The common position has introduced these threshold values as a new element, so that an amendment is permissible.*

Amendment 46  
ARTICLE 12, PARAGRAPH 3

3. **Until the end of 2010**, Member States may, using an alternative methodology,

**3. For not more than two years after the Directive enters into force** Member States

define *a* cogeneration as *high efficiency* cogeneration without verifying that the cogeneration production fulfils the criteria in Annex III(a), if it is proved *on* national level that the cogeneration production identified by such an alternative calculation methodology on average fulfils the criteria in Annex III(a). If a guarantee of origin is issued for such production then the efficiency of the cogeneration production specified *on* the guarantee shall not exceed the threshold values of the criteria in Annex III(a) unless calculations in accordance with Annex III prove otherwise. However, specification of the quantity of electricity from cogeneration produced in such a production, for issuing a guarantee of origin and for statistical purposes, shall be determined in accordance with Annex II.

may, using an alternative methodology, define cogeneration as *high-efficiency* cogeneration, without verifying that the cogeneration production fulfils the criteria in Annex III(a), if it is proved *at* national level that the cogeneration production identified by such an alternative calculation methodology on average fulfils the criteria in Annex III(a). If a guarantee of origin is issued for such production then the efficiency of the cogeneration production specified *in* the guarantee shall not exceed the threshold values of the criteria in Annex III(a) unless calculations in accordance with Annex III prove otherwise. However, specification of the quantity of electricity from cogeneration produced in such a production, for issuing a guarantee of origin and for statistical purposes, shall be determined in accordance with Annex II.

#### *Justification*

*See justification relating to Article 12(1).*

#### Amendment 47 ANNEX I, POINT C

(c) Steam condensing extraction turbine

(c) ***Non-nuclear*** steam condensing extraction turbine

#### *Justification*

*Self-explanatory. This amendment reintroduces Amendment 64 from the first reading.*

#### Amendment 48 ANNEX I, POINT J A (NEW)

***(ja) Trigeneration cycles including refrigeration production for industrial or air-conditioning purposes***

### *Justification*

*Trigeneration is understood as the simultaneous production of electrical, heating and cooling energy. This highly developed type of technology ought to be mentioned in order to include refrigeration production systems not necessarily covered by the other technologies cited. This amendment reintroduces Amendment 65 from the first reading.*

Amendment 49  
ANNEX I, POINT K

(k) Any other type of technology or combination thereof falling under the **definition** laid down in Article 3(a)

(k) Any other type of **non-nuclear** technology or combination thereof falling under the **definitions** laid down in Article 3

*Justification*

*Self-explanatory. This amendment reintroduces Amendment 66 from the first reading.*

Amendment 50  
ANNEX II, PARAGRAPH 1

Values used for calculation of electricity from cogeneration **shall be determined** on the basis of the **expected or actual operation of the unit under normal conditions of use**.

Values used for *the* calculation of electricity from cogeneration **are calculated** on the basis of the **power to heat ratio where there is full heat use. If an installation is not designed for full heat use the efficiency values set out under point (a) are used to calculate the power to heat ratio.**

*Justification*

*A major issue at first reading, with regard to the calculation of cogenerated electricity, was the precise determination of the power to heat ratio (C). Although the rapporteur has not reintroduced the text of Annex III(a) (new) from the first reading (Amendment 70) for the second reading, so as not to anticipate the outcome of the current CEN/CENELEC workshop, the addition to Annex II regarding the power to heat ratio is nonetheless necessary. This amendment reflects Amendment 70 from the first reading. The wording 'measured at the generator outlets' leaves the workshop too little flexibility as to whether net or gross values should be used in the calculation: it makes a preliminary decision in favour of gross values, instead. That part of the sentence should therefore be deleted. This additional element was introduced by the common position, and the deletion is therefore permissible.*

Amendment 51  
ANNEX II, POINT A

(a) Electricity production from cogeneration shall be considered equal to total annual electricity production of the unit **measured at the outlet of the main generators**.

(a) **In the case of cogeneration units with an annual efficiency of at least 80%** electricity production from cogeneration shall be considered equal to total annual electricity production of the unit.



### Justification

*At first reading Parliament deleted the threshold values above which a calculation of cogenerated electricity is not necessary, since the electricity production can be equated to the unit's total annual electricity production. The common position reintroduces these thresholds, but further lowers them by comparison with the Commission proposal. This does not correspond to the current state of technology and would result in a large proportion of the condensing electricity in type (b), (d), (e), (f), (g) and (h) units being regarded as cogenerated electricity. As a compromise the rapporteur therefore proposes to apply a uniform threshold for all types of installation with 80% efficiency, which makes the system for determining cogenerated electricity from cogeneration.*

### Amendment 52

#### ANNEX II, POINT B, SUBPARAGRAPH 1

(b) In cogeneration units with an annual overall efficiency below the value referred to in paragraph (a)(i) ***(cogeneration units of type (b), (d), (e), (f), (g), and (h) referred to in Annex I)*** or with an annual overall efficiency below the value referred to in paragraph (a)(ii) ***(cogeneration units of type (a) and (c) referred to in Annex I)*** cogeneration is calculated according to the following formula:

$$E_{\text{CHP}} = H_{\text{CHP}} \cdot C$$

where

$E_{\text{CHP}}$  is the amount of electricity from cogeneration

$C$  is the power to heat ratio

$H_{\text{CHP}}$  is the amount of useful heat from cogeneration (calculated for this purpose as total heat production minus any heat produced in *separate* boilers or by live steam extraction from the steam generator before the turbine).

(b) In cogeneration units with an annual overall efficiency below the value referred to in paragraph (a) cogeneration is calculated according to the following formula:

$$E_{\text{CHP}} = H_{\text{CHP}} \cdot C$$

where

$E_{\text{CHP}}$  is the amount of electricity from cogeneration

$C$  is the power to heat ratio

$H_{\text{CHP}}$  is the amount of useful heat from cogeneration, calculated for this purpose as total heat production minus any heat produced *separately* (e.g. in boilers or by live steam extraction from the steam generator before the turbine).

### Justification

*Any separate production must be ruled out. The workshop should determine what else might fall into the category 'separate', apart from boilers or live steam extraction before the turbine. In any case, it makes more sense here to quote already familiar instances of separate production as examples, which might be supplemented, and not to rule out other elements of installations from the outset. This amendment reflects Amendment 67 from the first reading.*

Amendment 53  
ANNEX II, SUBPARAGRAPH 2

The calculation of electricity from cogeneration must be based on the actual power to heat ratio. If the actual power to heat ratio of a cogeneration **unit** is not known, the following default values may be used for units of type (a), (b), (c), (d), and (e) referred to in Annex I provided that the calculated cogeneration electricity is less or equal to total electricity production of the unit:

The calculation of electricity from cogeneration must be based on the actual power to heat ratio. If the actual power to heat ratio of a cogeneration **process** is not known, the following default values may be used, **solely for statistical purposes**, for units of type (a), (b), (c), (d), and (e) referred to in Annex I provided that the calculated cogeneration electricity is less or equal to total electricity production of the unit:

*Justification*

*Default values may be used only for statistical purposes, because in individual cases an installation's specific values may diverge from the default values by up to 30%. This amendment reflects Amendment 67 from the first reading.*

Amendment 54  
ANNEX II, POINT D

***(d) Member States may determine the power to heat ratio as the ratio between electricity and useful heat when operating in cogeneration mode at a lower capacity using operational data of the specific unit.***

***Deleted***

*Justification*

*The power to heat ratio must be determined from the operational data for the relevant reporting period (see Annex II(b) and Article 3(k)). If the definitions in Article 3(k) and Annex II(b) worded correctly, no special rules are needed, since all load situations are covered. This point has been newly introduced by the common position, so an amendment is permissible.*

Amendment 55  
ANNEX II, POINT E A (NEW)

***(ea) No later than two years after the Directive enters into force the***

***Commission, acting pursuant to the procedure laid down in Article 14(2) and taking into account the method currently under development in the CEN/CENELEC workshop, shall present detailed guidelines for the implementation and application of this Annex, including the determination of the power to heat ratio.***

*Justification*

*The Directive lays down the PROTERMO method, one which is recognised throughout Europe, as the basis for calculating cogenerated electricity. However, the formula in Annex II(b) is inadequate in terms of providing sufficient information for cogeneration operators about its application. Accordingly, the CEN/CENELEC workshop is to work out guidelines for implementing the formula and give the Commission a basis pointing the way for the drafting of a uniform European calculation method for cogenerated electricity. This amendment reflects Amendment 69 from the first reading.*

Amendment 56  
ANNEX III, POINT A, SECOND INDENT

- production from *small scale* cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration.

- production from *small-scale and micro-*cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration.

*Justification*

*Not only small-scale units providing primary energy savings should qualify as high-efficiency cogeneration, but also micro-cogeneration units. This amendment reflects Amendment 71 from the first reading.*

Amendment 57  
ANNEX III, POINT B

(b) Calculation of primary energy savings

The amount of primary energy savings provided by cogeneration production defined in accordance with Annex II shall be calculated on the basis of the following formula:

(b) Calculation of primary energy savings

The amount of primary energy savings provided by cogeneration production defined in accordance with Annex II shall be calculated on the basis of the following formula:

$$PES = \dots 1 - \left[ \frac{\frac{1}{\frac{CHP H\eta}{Ref H\eta} + \frac{CHP E\eta}{Ref E\eta}}}{1} \right] \times 100\%$$

$$PES = \left[ 1 - \frac{Ref E\eta}{EEE} \right] \times 100\%$$

$$EEE = \frac{E_{CHP}}{F - \frac{H_{CHP}}{Ref H\eta}}$$

PES is primary energy savings

***CHP Hη is the heat efficiency of the cogeneration production defined as annual useful heat output divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration***

Ref Hη is the efficiency reference value for separate heat production

***CHP Eη is the electrical efficiency of the cogeneration production defined as annual electricity from cogeneration divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element will not create a right to issue guarantees of origin in accordance with Article 5.***

Ref Eη is the efficiency reference value for separate electricity production.

**where:**

PES is primary energy savings

Ref Hη is the efficiency reference value for separate heat production

**EEE** is the electrical efficiency of the cogeneration production

Ref Eη is the efficiency reference value for separate electricity production.

***F is fuel consumed by the cogeneration plant working in cogeneration mode***

***$E_{CHP}$  is electricity produced by the cogeneration plant working in cogeneration mode***

***$H_{CHP}$  is useful heat produced by the cogeneration plant working in cogeneration mode.***

#### *Justification*

*The calculation proposed here is based on measurable (and therefore verifiable) parameters (E, H and F). Since it can be assumed that, where heat production is concerned, only limited energy savings can be achieved by comparison with separate production, the EEE index (equivalent electrical efficiency) produces only a link between primary energy savings and the electrical part, and becomes a direct reference value for simple electricity generation plants. In absolute figures, the primary energy savings thus defined produce the same results as the Commission's method.*

*The method proposed encompasses all technologies, and the assessment period in relation to output can be adjusted to the operating period of the cogeneration plant.*

*The method can be seen as an extension and simplification of the procedure proposed by the Commission. This amendment reflects Amendment 71 from the first reading.*

#### **Amendment 58 ANNEX III, POINT C, HEADING**

**(c) Calculations of energy savings using alternative calculation according to Article 12(2)**

**(c) Calculations of energy savings using alternative calculation which according to Article 12(2) *shall be permitted for not more than two years after the Directive enters into force***

#### *Justification*

*For the same reasons as those set out in relation to Article 12, the transitional period for the use of alternative calculation methods for calculating primary energy savings should be no more than two years. This point has been newly introduced by the common position, so that an amendment is permissible.*

*Annex IV a*

***Criteria for defining support schemes for high-efficiency systems***

***Member States shall take account of the following considerations in drawing up support schemes:***

***1. Cogeneration plants render two types of service, namely a) electricity production and supply services, and b) energy efficiency services contributing to primary energy savings and environmental quality programmes.***

***(a) Electricity production and supply services, including security of supply, transport and distribution for the customer, and benefits from the reduction in losses on transport and distribution networks:***

***all of these services must have a similar return to those of any other electricity production and distribution system operating at the same voltage level. The support schemes must be designed to guard against distortions of competition on electricity markets.***

***(b) Contribution to primary energy savings and environmental quality programmes:***

***support schemes must be designed so that they:***

- are equivalent and non-discriminatory with respect to other production systems and are based on actual savings of fossil fuel and reductions in CO<sub>2</sub> emissions,***
- promote and foster greater efficiency and energy savings throughout the service life of the installation, not merely at the moment of certification,***
- are proportionate to the real savings or benefits derived from each cogeneration plant, on the basis of the measurement of***

*verifiable parameters,*

*- incorporate the provisions of the emissions trading Directive in due course.*

*2. In order to promote investment in new cogeneration plants a fully legitimate framework is required to provide security to investors for a sufficiently lengthy period (i.e. to enable them to recover their investment).*

*3. The defined framework must make provision for future adjustments to take account of technological developments, fuel-price trends and potential changes on electricity markets.*

*4. The economic support schemes must be defined to take account of the same measurable parameters that quantify and monitor primary energy savings in order to ensure that such savings are encouraged.*

#### *Justification*

*If the Directive is to be transposed properly, the principles underpinning the support schemes need to be laid down, without prejudice to adjustments to take account of the specific circumstances of each Member State and future Community legislation in this area. This amendment reflects Amendment 74 from the first reading.*

## EXPLANATORY STATEMENT

Cogeneration (or combined heat and power: CHP) is an environmental and energy policy instrument for increasing energy efficiency and improving the security of energy supplies. As such, cogeneration needs special consideration and support. The purpose of this Directive is to increase the share of cogeneration in the Community's total gross electricity production by means of targeted measures, such as the removal of obstacles to the development of cogeneration, specific arrangements for access to the grid for cogenerated electricity and the special promotion of micro-cogeneration. In addition, the Directive is intended to create the basis for a uniform definition and calculation of cogeneration. The rapporteur has drawn up his report for Parliament's second reading in the light of the above.

The Council's common position was forwarded to Parliament on 22 September 2003. Unfortunately, the Council has accepted only a few of Parliament's first-reading amendments. The rapporteur welcomes the fact that the Council has accepted the proposal for harmonising the reference values for calculating primary energy savings. Where the calculation method for cogenerated electricity is concerned, the Council has taken up the proposal to consult an expert body (the CEN/CENELEC workshop). The rapporteur explicitly welcomes this decision, too.

Other Parliament amendments have not been taken up. Consequently, the rapporteur has reintroduced the most important points in this report.

First, micro-cogeneration should receive special support. The purpose of changes to Recital 26, a number of articles (Articles 3(aa), (ab) and (la); 4(-1); 5(-1), 6(1); 8(1b) and (3)) and Annex III(b) is to define micro-cogeneration and efficient micro-cogeneration, facilitate access to the electricity grid for micro-cogeneration and minimise costs. Micro-cogeneration makes a major contribution to decentralised energy supply and is thus of major importance, particularly in the light of last summer's power cuts. The rapporteur considers that the provisions in the common position regarding small-scale units are insufficient to do justice to this significant role.

Secondly, the rapporteur again proposes laying down binding targets for the Community and the Member States, and wishes to point out once again that without any targets no sustainable increase in cogeneration in Europe can be expected. The Commission's guideline figure from 1997 is taken up and adjusted to the current situation. The proposal is to increase cogeneration to 18% by 2012. In addition, the Member States are to notify the Commission of their national targets for 2015 and 2020. These demands are reflected in Recital 6b and in Articles 5a and 5(3a). Recitals 5a, 6 and 6a merely refer to the targets set in earlier documents.

A third major point from the first reading was the tightening of the timetable for implementing the Directive. In order to ensure consistency and achievability the rapporteur agrees with the common position on a number of deadlines. Changes are required, however, with regard to the frequency with which progress is assessed by the Member States and the Commission. The rapporteur regards regular checks on progress, without lengthy intervals between them, as necessary if the targets are actually to be implemented (changes to Articles 11(1) and 10(2)). From the rapporteur's point of view, the most problematical issue is the deadlines in Article 12. These concern alternative calculation methods, which may be used



either until 2010 or even for an unlimited period. This article contradicts the Directive's overall aim, which is to achieve a uniform way of calculating and categorising cogeneration in Europe. Such alternative calculation methods should therefore be used only until the Commission presents a uniform calculation method, with guidelines, and harmonised reference values for calculating the primary energy savings enabling cogeneration to be categorised (not more than two years after the Directive enters into force). Changes to that effect have been made to Article 12(1), (2) and (3).

Fourthly, the rapporteur has reintroduced some amendments relating to definitions. However, most of the definition were taken up by the common position. The purpose of those changes which are still needed is to remove remaining imprecisions and ensure consistent terminology throughout the document. Changes can be found in Article 3(a), (b), (d), (i), (k) and (ma).

Finally, a number of new changes are required with regard to the arrangements for access to the grid. In this connection, the common position merely refers to the rules in the Directive on renewable energy (2001/77/EC) and the Directive on the internal market in electricity (2003/54/EC). This is insufficient, since not all the rules can be taken over by analogy: adjustments to the wording are required. Changes to that effect can be found in Article 8(1a), (1b), (1c) and (2a).

The bulk of the amendments reintroduced by the rapporteur, or those newly tabled, clearly show his dissatisfaction with the common position. The rapporteur hopes for broad support for his proposals in Parliament and constructive and fruitful negotiations with the Council.