

IV

(Notices)

NOTICES FROM EUROPEAN UNION INSTITUTIONS AND BODIES

COMMISSION

COMMUNITY GUIDELINES ON STATE AID FOR ENVIRONMENTAL PROTECTION

(Text with EEA relevance)

(2008/C 82/01)

CONTENTS

	Page
1. Introduction	4
1.1. State aid policy and Energy Policy for Europe	4
1.2. State aid policy and environmental protection	4
1.3. The balancing test and its application to aid for environmental protection	5
1.3.1. The State Aid Action Plan: less and better targeted aid, balancing test for the assessment of aid	5
1.3.2. The objective of common interest addressed by the Guidelines	6
1.3.3. Appropriate instrument	6
1.3.4. Incentive effect and necessity of aid	7
1.3.5. Proportionality of the aid	7
1.3.6. Negative effects of environmental aid must be limited so that the overall balance is positive	8
1.4. Implementing the balancing test: legal presumptions and need for more detailed assessment	8
1.5. Reasons for specific measures covered by these Guidelines	9
1.5.1. Aid for undertakings which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards	9
1.5.2. Aid for the acquisition of new transport vehicles which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards	9

	Page
1.5.3. Aid for early adaptation to future Community standards	9
1.5.4. Aid for environmental studies	9
1.5.5. Aid for energy saving	9
1.5.6. Aid for renewable energy sources	10
1.5.7. Aid for cogeneration and aid for district heating (DH)	10
1.5.8. Aid for waste management.....	11
1.5.9. Aid for the remediation of contaminated sites	11
1.5.10. Aid for the relocation of undertakings.....	11
1.5.11. Aid involved in tradable permit schemes.....	11
1.5.12. Aid in the form of reductions of or exemptions from environmental taxes	11
2. Scope of application and definitions	12
2.1. Scope of application of the Guidelines	12
2.2. Definitions.....	13
3. compatibility of aid under Article 87(3) of the EC Treaty	15
3.1. Compatibility of aid under Article 87(3)(c) of the EC Treaty	15
3.1.1. Aid for undertakings which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards.....	15
3.1.2. Aid for the acquisition of new transport vehicles which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards	17
3.1.3. Aid for early adaptation to future Community standards	17
3.1.4. Aid for environmental studies	18
3.1.5. Aid for energy saving	18
3.1.5.1. Investment aid	18
3.1.5.2. Operating aid	18
3.1.6. Aid for renewable energy sources	19
3.1.6.1. Investment aid	19
3.1.6.2. Operating aid	19
3.1.7. Aid for cogeneration.....	20
3.1.7.1. Investment aid	20
3.1.7.2. Operating aid	20
3.1.8. Aid for energy-efficient district heating.....	21
3.1.9. Aid for waste management.....	21
3.1.10. Aid for the remediation of contaminated sites	22
3.1.11. Aid for the relocation of undertakings.....	22
3.1.12. Aid involved in tradable permit schemes.....	23

	Page
3.2. Incentive effect and necessity of aid.....	24
3.3. Compatibility of aid under Article 87(3)(b) of the EC Treaty	24
4. Aid in the form of reductions of or exemptions from environmental taxes	25
5. Compatibility of aid subject to a detailed assessment	26
5.1. Measures subject to a detailed assessment.....	26
5.2. Criteria for economic assessment of individual cases.....	27
5.2.1. Positive effects of the aid	27
5.2.1.1. Existence of a market failure	27
5.2.1.2. Appropriate instrument	27
5.2.1.3. Incentive effect and necessity of aid.....	27
5.2.1.4. Proportionality of the aid.....	28
5.2.2. Analysis of the distortion of competition and trade	28
5.2.2.1. Dynamic incentives/crowding out.....	29
5.2.2.2. Maintaining inefficient firms afloat.....	29
5.2.2.3. Market power/exclusionary behaviour.....	30
5.2.2.4. Effects on trade and location.....	30
5.2.3. Balancing and decision	30
6. Cumulation	31
7. Final provisions	31
7.1. Annual reporting	31
7.2. Transparency.....	31
7.3. Monitoring and evaluation	31
7.4. Appropriate measures	32
7.5. Application, validity and revision	32

1. INTRODUCTION

1.1. State aid policy and Energy Policy for Europe

(1) The spring 2007 European Council called on Member States and EU institutions to pursue actions to develop a sustainable integrated European climate and energy policy. The Council stated among other things: 'Given that energy production and use are the main sources for greenhouse gas emissions, an integrated approach to climate and energy policy is needed to realise this objective. Integration should be achieved in a mutually supportive way. With this in mind, the Energy Policy for Europe (EPE) will pursue the following three objectives, fully respecting Member States' choice of energy mix and sovereignty over primary energy sources and underpinned by a spirit of solidarity amongst Member States:

- increasing security of supply,
- ensuring the competitiveness of European economies and the availability of affordable energy,
- promoting environmental sustainability and combating climate change.'

(2) As a milestone in the creation of this Energy Policy for Europe, the European Council supported a comprehensive Energy Action Plan for the period 2007-2009 and invited in particular the Commission to submit the proposals requested in the Action Plan as speedily as possible. One of these proposals relates to the review of the Community guidelines on State aid for environmental protection.

(3) The European Council made a firm independent commitment for the EU to achieve at least a 20 % reduction in greenhouse gas emissions by 2020 compared to 1990. It also stressed the need to increase energy efficiency in the EU so as to achieve the objective of saving 20 % of the EU's energy consumption compared to projections for 2020, and endorsed a binding target of a 20 % share of renewable energies in overall EU energy consumption by 2020 as well as a 10 % binding minimum target to be achieved by all Member States for the share of biofuels in overall EU transport petrol and diesel consumption by 2020.

(4) These new guidelines constitute one of the instruments to implement the Action Plan and the environmental aspects of the energy- and climate change-related targets decided by the European Council.

1.2. State aid policy and environmental protection

(5) In the 'State Aid Action Plan — Less and better targeted State aid: A roadmap for State aid reform 2005-2009' (1) (hereafter referred to as the 'State Aid Action Plan') the

Commission noted that State aid measures can sometimes be effective tools for achieving objectives of common interest. Under some conditions, State aid can correct market failures, thereby improving the functioning of markets and enhancing competitiveness. It can also help to promote sustainable development, irrespective of the correction of market failures (2). The State Aid Action Plan also stressed that environmental protection can provide opportunities for innovation, create new markets and increase competitiveness through resource efficiency and new investment opportunities. Under some conditions, State aid can be conducive to these objectives, thus contributing to the core Lisbon strategy objectives of more sustainable growth and jobs. Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme (3) (hereafter referred to as the 'Sixth Environment Action Programme') identifies the priority areas for actions to protect the environment (4).

(6) The primary objective of State aid control in the field of environmental protection is to ensure that State aid measures will result in a higher level of environmental protection than would occur without the aid and to ensure that the positive effects of the aid outweigh its negative effects in terms of distortions of competition, taking account of the polluter pays principle (hereafter 'PPP') established by Article 174 of the EC Treaty.

(7) Economic activities can harm the environment not least through pollution. In certain cases, in the absence of government intervention, undertakings can avoid bearing the full cost of the environmental harm arising from their activities. As a result, the market fails to allocate resources in an efficient manner, since the (negative) external effects of production are not taken into account by the producer, but are borne by society as a whole.

(8) According to the PPP, these negative externalities can be tackled by ensuring that the polluter pays for its pollution, which implies full internalisation of environmental costs by the polluter. This is intended to ensure that the private costs (borne by the undertaking) reflect the true social costs of the economic activity. Full implementation of the PPP would thus lead to correction of the market failure. The PPP can be implemented either by setting mandatory environmental standards or by market-based instruments (5). Some of the market-based instruments may involve the granting of State aid to all or some of the undertakings which are subject to them.

(2) See State Aid Action Plan, para. 10.

(3) OJ L 242, 10.9.2002, p. 1.

(4) The priority areas are: climate change, nature and biodiversity, environment and health and natural resources and waste. Health is not covered by these guidelines.

(5) With regard to the latter see the Green Paper on market-based instruments for environment and related policy purposes, 28 March 2007, COM(2007) 140 final.

(1) COM(2005) 107 final.

- (9) Although there are currently limits to the application of the PPP, this regulatory failure should not prevent Member States from imposing requirements for environmental protection that go beyond Community requirements and from reducing negative externalities to the greatest possible extent.
- (10) In order to increase the level of environmental protection, Member States may want to use State aid to create incentives on an individual level (at the level of the undertaking) to achieve a higher level of environmental protection than required by Community standards or to increase the environmental protection in the absence of Community standards. They may also set national standards or environmental taxation at a higher level than required by Community legislation or they may use environmental taxation to implement PPP unilaterally in the absence of Community legislation.
- (11) The Commission considers that it is necessary to revise the State aid guidelines on environmental protection in order to meet the objectives set out in the State Aid Action Plan, in particular to ensure better targeted aid, improved economic analysis and more effective procedures. Furthermore, the Commission considers it necessary to take into account developments in environmental policy and environmental technologies and to adjust the rules in the light of experience.
- (12) The Commission will apply these Guidelines in the assessment of environmental aid, thereby increasing legal certainty and the transparency of its decision-making. Aid for environmental protection will primarily be justified on the basis of Article 87(3)(c) of the EC Treaty. These Guidelines replace the Community guidelines on State aid for environmental protection ⁽⁶⁾ that came into force in 2001.
- (13) Guidelines are given for two types of assessments: a standard assessment for measures involving aid under a certain threshold or aid granted to installations with a production capacity below a certain threshold (Chapter 3) and a detailed assessment for measures involving aid above that threshold or aid granted to installations with a production capacity above that threshold as well as for aid granted to new plants producing renewable energy where the aid amount is based on a calculation of the external costs avoided (Chapter 5).
- (14) These Guidelines will be applied to all measures notified to the Commission (either because the measure is not covered by a block exemption regulation (hereafter 'BER') or a BER imposes an obligation to notify aid individually, or because the Member State concerned decides to notify a measure which could in principle have been exempted under a BER), as well as in the assessment of all non-notified aid after the publication of these Guidelines.
- 1.3. The balancing test and its application to aid for environmental protection**
- 1.3.1. *The State Aid Action Plan: less and better targeted aid, balancing test for the assessment of aid*
- (15) In the State Aid Action Plan, the Commission announced that 'to best contribute to the re-launched Lisbon Strategy for growth and jobs, the Commission will, when relevant, strengthen its economic approach to State aid analysis. An economic approach is an instrument to better focus and target certain State aid towards the objectives of the re-launched Lisbon Strategy'.
- (16) In assessing whether an aid measure can be deemed compatible with the common market, the Commission balances the positive impact of the aid measure in reaching an objective of common interest against its potentially negative side effects, such as distortion of trade and competition. The State Aid Action Plan, building on existing practice, has formalised this balancing exercise in what has been termed a 'balancing test' ⁽⁷⁾. It operates in three steps; the first two steps address the positive effects of the State aid and the third addresses the negative effects and resulting balancing of the positive and negative effects. The balancing test is structured as follows:
- 1) Is the aid measure aimed at a well-defined objective of common interest? (for example: growth, employment, cohesion, environment, energy security). In the context of these Guidelines, the relevant common interest objective is the protection of the environment.
 - 2) Is the aid well designed to deliver the objective of common interest that is to say, does the proposed aid address the market failure or other objective?
 - a) is State aid an appropriate policy instrument?
 - b) is there an incentive effect, namely does the aid change the behaviour of undertakings?
 - c) is the aid measure proportional, namely could the same change in behaviour be obtained with less aid?
 - 3) Are the distortions of competition and effect on trade limited, so that the overall balance is positive?

⁽⁶⁾ OJ C 37, 3.2.2001, p. 3.

⁽⁷⁾ Cf. State Aid Action Plan, para. 11 and 20, as elaborated in more detail in the Communication on innovation (COM(2005) 436 final 21.9.2005).

(17) This balancing test is applicable to the design of State aid rules as well as to the assessment of cases.

1.3.2. *The objective of common interest addressed by the Guidelines*

(18) The first indent of Article 2 of the Treaty on European Union stipulates that sustainable development is one of the objectives in the European Union. This should be based on economic prosperity, social cohesion and a high level of protection of the environment. Promoting environmental protection is thus an important objective of common interest. In addition, Article 6 of the EC Treaty mentions the need to integrate protection of the environment into all Community policies and Article 174(2) of the EC Treaty states that environment policy is to be based on the principles of precaution, prevention, rectifying pollution⁽⁸⁾ at source and 'polluter pays'.

(19) These Guidelines lay down the conditions for authorising the granting of State aid to address those market failures which lead to a sub-optimal level of environmental protection.

(20) The most common market failure in the field of environmental protection is related to negative externalities. Undertakings acting in their own interest have no incentive to take the negative externalities arising from production into account either when they decide on a particular production technology or when they decide on the production level. In other words, the production costs that are borne by the undertaking are lower than the costs borne by society. Therefore undertakings have no incentive to reduce their level of pollution or to take individual measures to protect the environment.

(21) Governments confronted with this market failure tend to use regulation in order to ensure that the negative externalities arising from production are accounted for. Through the introduction of standards, taxation, economic instruments and other regulation, the undertakings producing pollution have to pay for the cost to society of pollution in accordance with the PPP. Internalising these negative externalities will consequently raise the private costs borne by those undertakings, thereby negatively affecting their revenue. Moreover, since the generation of pollution is unevenly spread among industries and undertakings, the costs of any environmentally friendly regulation tend to be

differentiated, not only between undertakings, but also between Member States. Member States may furthermore have a different appreciation of the need to introduce high environmental targets.

(22) In the absence of Community standards and market-based instruments fully reflecting the PPP level (regulatory failure), Member States may thus decide unilaterally to pursue a higher level of environmental protection. This may in turn create additional costs for the undertakings active in their territory. For that reason, in addition to regulation, Member States may use State aid as a positive incentive to achieve higher levels of environmental protection. They can do this in two ways:

— **positive individual incentives to reduce pollution and other negative impacts on the environment:**

First, Member States can create positive incentives on an individual level (at the level of the undertaking) to go beyond Community standards. In this case, the aid beneficiary reduces pollution because it receives aid to change its behaviour, and not because it has to pay for the costs of this pollution. The objective of State aid here is to address directly the market failure linked with the negative effects of pollution;

— **positive incentives to introduce national environmental regulation going beyond Community standards:**

Second, Member States can impose national regulation going beyond the Community standards. However, this may lead to additional costs for certain undertakings, and thus affect their competitive conditions. Moreover, such costs may not represent the same burden for all undertakings given their size, market position, technology and other specificities. In this case, State aid may be necessary, to lessen the burden on the most affected undertakings and thereby enable Member States to adopt national environmental regulation that is stricter than Community standards.

1.3.3. *Appropriate instrument*

(23) There is a role for government intervention to ensure more adequate environmental protection. Regulation and market-based instruments are the most important tools to achieve environmental objectives. Soft instruments, such as voluntary eco-labels, and the diffusion of environmentally friendly technologies may also play an important role. However, even if finding the optimal mix of policy instruments can be complicated, the existence of market failures or political objectives does not automatically justify the use of State aid.

⁽⁸⁾ This can include activities such as the release of chemical pollutants into the environment, or for instance physically altering the aquatic environment, and thereby causing disturbances of ecosystems or activities having a negative impact on the status of water resources.

(24) According to the PPP, the polluter should pay all the costs of its pollution, including the indirect costs borne by society. For this purpose, environmental regulation can be a useful instrument to increase the burden on the polluter. Respect for the PPP ensures, in theory, that the market failure linked to negative externalities will be rectified. Consequently, if the PPP were fully implemented, further government intervention would not be necessary to ensure a market-efficient outcome. The PPP remains the main rule and State aid is in fact a second-best option. Using State aid in the context of the PPP would relieve the polluter of the burden of paying the cost of its pollution. Therefore, State aid may not be an appropriate instrument in such cases.

(25) However, on account, in particular, of incomplete implementation of the PPP, the existing level of environmental protection is often considered to be unsatisfactory for the following reasons:

a) first, the exact cost of pollution is not easy to establish. It is technically complicated to calculate the extra costs for society for all types of production, and it may sometimes be inefficient to take account of the fact that different producers have different levels of pollution if the associated administrative costs are very high. Different sensitivities towards changes in consumer prices (price elasticity) also play a role. Furthermore, the valuation of the cost of pollution can differ among individuals and societies, depending on societal choices as regards, for instance, the effect of current policies on future generations. In addition, some costs are difficult to express without some uncertainty in monetary terms, such as shorter life expectancy or environmental damage. There will therefore always be a degree of uncertainty involved in calculating the costs of pollution.

b) second, raising the price of a series of (industrial) products too abruptly in order to internalise the cost of pollution may act as an external shock and create disturbances in the economy. Governments may therefore consider it more desirable to progress with moderation towards integrating the full price of pollution into certain production processes.

(26) In the context of an unsatisfactory level of environmental protection, State aid, although it does not resolve all the above-mentioned problems, may provide positive incentives for undertakings to carry out activities or make investments which are not mandatory and would otherwise not be undertaken by profit-seeking companies. In addition, State aid may be an appropriate instrument to enable Member States to adopt national environmental regulation going beyond Community standards, by lowering the burden on the undertakings most affected by that regulation, and thus making the regulation possible.

1.3.4. *Incentive effect and necessity of aid*

(27) State aid for environmental protection must result in the recipient of the aid changing its behaviour so that the level of environmental protection will be higher than if the aid had not been granted. However, investments which increase the level of environmental protection may at the same time increase revenues ⁽⁹⁾ and/or decrease costs ⁽¹⁰⁾ and thus be economically attractive in their own right. Therefore, it needs to be verified that the investment concerned would not have been undertaken without any State aid.

(28) The objective is to be sure that undertakings would not, without the aid, engage in the same activity because of its intrinsic benefits. The incentive effect is identified through counterfactual analysis, comparing the levels of intended activity with aid and without aid. Correct identification of the counterfactual scenario is key to determining whether or not State aid has an incentive effect. It is also essential for the calculation of the extra investment or production costs incurred to achieve the higher level of environmental protection.

(29) Investment may be necessary in order to meet mandatory Community standards. Since the company would have to comply with those standards in any event, State aid to meet mandatory Community standards that are already in force cannot be justified.

1.3.5. *Proportionality of the aid*

(30) Aid is considered to be proportional only if the same result could not be achieved with less aid. In addition, proportionality may also depend on the degree of selectivity of a measure.

(31) In particular, the aid amount must be limited to the minimum needed to achieve the environmental protection sought. Therefore, eligible costs for investment aid are based on the notion of the extra (net) cost necessary to meet the environmental objectives. This concept implies that, in order to establish how much aid can be granted, all the economic benefits which the investment gives the company must in principle be subtracted from the additional investment costs.

⁽⁹⁾ More environmentally friendly production may result, for example, in more possibilities for recycling waste materials, thus generating additional revenues. It may also be possible to increase the price or the sales of products that are perceived as more environmentally-friendly and thus more appealing to consumers.

⁽¹⁰⁾ More environmentally friendly production may result notably in reduced consumption of energy and input materials.

- (32) However, it is difficult to fully take into account all economic benefits which a company will derive from an additional investment. For example, according to the methodology for calculating eligible costs set out in points 80 to 84, operating benefits are not taken into account beyond a certain initial period following the investment. Likewise, certain kinds of benefits which are not always easy to measure — such as the 'green image' enhanced by an environmental investment — are not taken into account in this context either. Consequently, in order for the aid to be proportionate, the Commission considers that the aid amount must normally be less than the eligible investment costs, see Annex. It is only in cases where investment aid is granted in a genuinely competitive bidding process on the basis of clear, transparent and non-discriminatory criteria — effectively ensuring that the aid is limited to the minimum necessary for achieving the environmental gain — that the aid amount may reach 100 % of the eligible investment cost. This is because under such circumstances it can be assumed that the respective bids reflect all possible benefits that might flow from the additional investment.
- (33) Moreover, for some measures, it is not possible to calculate the amount of aid on the basis of the extra costs; this is the case for aid in the form of environmental tax exemptions or reductions and aid in the form of tradable permit schemes. In those cases, proportionality has to be ensured through conditions and criteria for granting the exemptions and reductions, which ensure that the beneficiary does not receive excessive advantages, and that the selectivity of the measure is limited to the strict minimum.
- (34) The cost of achieving environmental protection is often higher for small and medium-sized enterprises in relative terms compared to the size of their activity. In addition, the ability of small and medium-sized enterprises to bear such costs is often restricted by capital market imperfections. For this reason, and in view of the reduced risk of serious distortions of competition when the beneficiary is a small or medium-sized enterprise, a bonus can be justified for such enterprises for some types of aid.
- (35) In addition, Member States are encouraged to ensure cost-effectiveness in achieving environmental benefits, for example by choosing measures for which the external costs avoided are significant in relation to the amount of aid. However, since there is no direct link between the external costs avoided and the cost incurred by the undertaking, only in exceptional cases may external costs avoided be used as a basis to determine State aid amounts. Normally, in order to ensure an adequate incentive for the undertaking to change its behaviour, the aid amount must be linked directly to the cost borne by the undertaking.

1.3.6. *Negative effects of environmental aid must be limited so that the overall balance is positive*

- (36) If environmental State aid measures are well targeted to counterweigh only the actual extra costs linked to a higher level of environmental protection, the risk that the aid will

unduly distort competition is normally rather limited. Consequently, it is crucial that environmental State aid measures are well targeted. In cases where aid is not necessary or proportionate to achieve its intended objective it will harm competition. This may in particular be the case if aid leads to:

- a) maintaining inefficient firms afloat;
- b) distorting dynamic incentives/crowding out;
- c) creating market power or exclusionary practices;
- d) artificially altering trade flows or the location of production.

- (37) In some cases, the purpose of the measure is to intervene in the functioning of the market with a view to favouring, to the overall benefit of the environment, certain environmentally friendly productions at the expense of other, more polluting ones. As a result of such measures, the producers of the environmentally friendly products concerned will be able to improve their market position in relation to competitors offering environmentally less beneficial products. In such cases, the Commission will take into account the overall environmental effect of the measure when looking at its negative impact on the market position, and thus on the profits, of non-aided firms. The lower the expected environmental effect of the measure in question, the more important the verification of its effect on market shares and profits of competing products.

1.4. Implementing the balancing test: legal presumptions and need for more detailed assessment

- (38) Without prejudice to Articles 4 to 7 of Council Regulation (EC) No 659/1999 of 22 March 1999 laying down detailed rules for the application of Article 93 of the EC Treaty ⁽¹¹⁾, the legal presumptions applied by the Commission differ according to the type of State aid measure notified.
- (39) In Chapter 3 of these Guidelines, the Commission has identified a series of measures in respect of which it considers *a priori* that State aid will address a market failure hampering environmental protection or improve on the level of environmental protection. The Commission also sets out a series of conditions and parameters, which are intended to ensure that State aid actually has an incentive effect, is proportionate and has a limited negative impact on competition and trade. Chapter 3 thus contains parameters in respect of the aided activity, aid intensities and conditions attached to compatibility.

⁽¹¹⁾ OJ L 83, 27.3.1999, p. 1. Regulation as last amended by Regulation (EC) No 1791/2006 (OJ L 363, 20.12.2006, p. 1).

(40) However, for aid amounts above certain thresholds as well as for certain specific situations, additional scrutiny is necessary, because of higher risks of distortion of competition and trade. The additional scrutiny will generally consist in further and more detailed factual analysis of the measure in accordance with Chapter 5. These measures will be declared compatible if the balancing test pursuant to Chapter 5 results in an overall positive evaluation. In the context of this analysis, no compatibility criteria will be presumed to be fulfilled at the outset. Tax exemptions and reductions from environmental taxes will be subject only to the assessment laid down in Chapter 4 ⁽¹²⁾.

(41) As a result of this detailed assessment, the Commission may approve the aid, declare it incompatible with the common market or take a compatibility decision subject to conditions.

1.5. Reasons for specific measures covered by these Guidelines

(42) The Commission has identified a series of measures for which State aid may, under specific conditions, be compatible with Article 87(3)(c) of the EC Treaty.

1.5.1. *Aid for undertakings which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards*

(43) This type of aid provides individual incentives to companies to achieve higher environmental protection. Normally, an undertaking does not have an incentive to go beyond mandatory standards if the cost of doing so exceeds the benefit for the undertaking. In such cases State aid may be granted to give an incentive to undertakings to improve environmental protection. In accordance with the Community objective to support eco-innovation, more favourable treatment can be accepted for eco-innovation projects that address the double market failure linked to the higher risks of innovation, coupled with the environmental aspect of the project. Aid for eco-innovation thus aims to accelerate the market diffusion of eco-innovations.

1.5.2. *Aid for the acquisition of new transport vehicles which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards*

(44) Transport is responsible for a large share of overall greenhouse gas emissions (approximately 30 %), as well as for local pollution by dust, particulates, NO_x and SO_x. Hence, it is important to encourage clean modes of transport, both in order to fight global climate change and in order to reduce local pollution, in particular in cities. In this context, it is particularly important to encourage the acquisition of clean transport vehicles (including clean ships).

1.5.3. *Aid for early adaptation to future Community standards*

(45) These Guidelines do not authorise aid to assist undertakings to comply with Community standards already in force, because such aid would not lead to a higher level of environmental protection. However, State aid may ensure significantly quicker implementation of newly adopted Community standards which are not yet in force and thereby contribute to reducing pollution at a faster pace than would have been the case without the aid. In such situations, State aid may therefore create individual incentives for enterprises to counterbalance the effects of the negative externalities linked to pollution.

1.5.4. *Aid for environmental studies*

(46) Aid to companies for studies on investments aimed at achieving a level of environmental protection going beyond Community standards or increasing the level of environmental protection in the absence of Community standards, as well as studies on energy saving and production of renewable energy, addresses the market failure linked to asymmetric information. Often undertakings underestimate the possibilities and benefits related to energy saving and renewable energy, which leads to under-investment.

1.5.5. *Aid for energy saving*

(47) This type of aid addresses the market failure linked to negative externalities by creating individual incentives to attain environmental targets for energy saving and for the reduction of greenhouse gas emissions. At Community level, in the Communication from the Commission to the European Council and the European Parliament — an Energy Policy for Europe ⁽¹³⁾ the aim has been set to achieve at least a 20 % reduction in greenhouse gas emissions by 2020 compared to 1990, as endorsed by the European Council of 8 and 9 March 2007. Furthermore, Member States are obliged to adopt and aim to achieve an overall national indicative energy savings target of 9 % over nine years in accordance with Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC ⁽¹⁴⁾. State aid may be appropriate where the investments resulting in energy savings are not compulsory pursuant to applicable Community standards and where they are not profitable, that is to say where the cost of energy saving is higher than the related private economic benefit. In the case of small and medium-sized enterprises, more favourable support may be needed to take into account the fact that these enterprises often under-estimate the benefits related to energy savings over long periods, which leads to their under-investment in energy-saving measures.

⁽¹²⁾ Aid granted in the form of fiscal aid in accordance with Chapter 3 will be subject to a detailed assessment if the thresholds in Chapter 5 are exceeded.

⁽¹³⁾ COM(2007) 1 final.

⁽¹⁴⁾ OJ L 114, 27.4.2006, p. 64.

1.5.6. *Aid for renewable energy sources*

(48) This type of aid addresses the market failure linked to negative externalities by creating individual incentives to increase the share of renewable sources of energy in total energy production. Increased use of renewable energy sources is one of the Community's environmental priorities as well as an economic and energy-related priority. It is expected to play an important role in meeting the targets for the reduction of greenhouse gas emissions. At Community level, in the Communication from the Commission to the European Council and the European Parliament — an energy policy for Europe the target has been set for renewable energy to account for 20 % of overall EU energy consumption by 2020. State aid may be justified if the cost of production of renewable energy is higher than the cost of production based on less environmentally friendly sources and if there is no mandatory Community standard concerning the share of energy from renewable sources for individual undertakings. The high cost of production of some types of renewable energy does not allow undertakings to charge competitive prices on the market and thus creates a market-access barrier for renewable energy. However, due to technological developments in the field of renewable energy and to gradually increasing internalisation of environmental externalities (resulting, for example, from Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control ⁽¹⁵⁾, air quality legislation and the emissions trading scheme), the cost difference has shown a decreasing trend over the past years, thus reducing the need for aid.

(49) In addition, as highlighted in the Biofuel Progress Report ⁽¹⁶⁾, biofuel promotion should benefit both security of supply and climate change policy in a sustainable way. Therefore, State aid may be an appropriate instrument only for those uses of renewable energy sources where the environmental benefit and sustainability is evident. More particularly, biofuels not fulfilling the sustainability criteria set out in Article 15 of the proposal for a Directive of the European Parliament and the Council on the promotion of the use of energy from renewable sources ⁽¹⁷⁾ will not be considered eligible for State aid. When designing their support systems, Member States may encourage the use of biofuels which give additional benefits — including the benefits of diversification offered by biofuels made from wastes, residues, cellulosic and ligno-cellulosic material — by taking due account of the different costs of producing

energy from traditional biofuels, on the one hand, and of those biofuels which give additional benefits, on the other hand.

(50) With regard to hydropower installations it should be noted that their environmental impact can be twofold. In terms of low greenhouse gas emissions they certainly provide potential. Therefore, they can play an important part in the overall energy mix. On the other hand, such installations might also have a negative impact, for example on water systems and biodiversity ⁽¹⁸⁾.

1.5.7. *Aid for cogeneration and aid for district heating (DH)*

(51) These types of aid address market failure linked to negative externalities by creating individual incentives to meet environmental targets in the field of energy savings. Cogeneration of heat and electricity (hereafter 'CHP') is the most efficient way of producing electricity and heat simultaneously. By producing both electricity and heat together, less energy is wasted in production. The Community strategy outlined in the Commission's cogeneration strategy of 1997 sets an overall indicative target of doubling the share of electricity production from cogeneration to 18 % by 2010. Since then the importance of CHP for the EU energy strategy has been underlined by the adoption of Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC ⁽¹⁹⁾ and by a chapter on cogeneration in the Commission Action Plan for Energy Efficiency: Realising the Potential ⁽²⁰⁾. The latter document also points to the potential of waste heat, for example from industry or utilities, for useful applications, for example in district heating (hereafter 'DH'). Further, DH may be more energy-efficient than individual heating and may provide a significant improvement in urban air quality. Therefore, provided that DH is shown to be less polluting and more energy efficient in the generation process and the distribution of the heat, but more costly than individual heating, State aid can be granted with a view to giving incentives to attain environmental targets. However, as in the case of renewable energies, the progressive internalisation of environmental externalities in the costs of other technologies can be expected to reduce the need for aid by bringing about a gradual convergence of these costs with those of CHP and DH.

⁽¹⁵⁾ OJ L 24, 29.1.2008, p. 8.

⁽¹⁶⁾ COM(2006) 845 final.

⁽¹⁷⁾ COM(2008) 19 final. Once the Directive has been adopted by the European Parliament and the Council, the Commission will apply the sustainability criteria in the final text.

⁽¹⁸⁾ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1). Directive as last amended by Decision No 2455/2001/EC (OJ L 331, 15.12.2001, p. 1). In particular Article 4(7) lays down criteria in relation to allowing new modifications of bodies of water.

⁽¹⁹⁾ OJ L 52, 21.2.2004, p. 50.

⁽²⁰⁾ COM(2006) 545 final.

1.5.8. *Aid for waste management*

- (52) This type of aid aims to give individual incentives to reach environmental targets linked to waste management ⁽²¹⁾. The Sixth Environment Action Programme identifies waste prevention and management as one of the four top priorities. Its primary objective is to separate waste generation from economic activity, so that EU growth will not lead to more and more waste. In this context, State aid may be granted to the producer of the waste (under section 3.1.1) as well as to undertakings managing or recycling waste created by other undertakings (under section 3.1.9). However, the positive effects on the environment must be ensured, the PPP must not be circumvented and the normal functioning of secondary materials markets should not be distorted.

1.5.9. *Aid for the remediation of contaminated sites*

- (53) This type of aid is intended to create an individual incentive to counterbalance the effects of negative externalities, where it is not possible to identify the polluter and make it pay for repairing the environmental damage it has caused. In such cases, State aid may be justified if the cost of remediation is higher than the resulting increase in the value of the site.

1.5.10. *Aid for the relocation of undertakings*

- (54) This type of investment aid aims to create individual incentives to reduce negative externalities by relocating undertakings that create major pollution to areas where such pollution will have a less damaging effect, which will reduce external costs. In line with the precautionary principle, these Guidelines introduce the possibility of granting aid for the relocation of *high risk establishments* in accordance with Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances ⁽²²⁾ (hereafter the 'Seveso II Directive'). Past accidents have shown that the location of an establishment covered by the Seveso II Directive is of crucial importance as regards both the prevention of accidents and limitation of the consequences of accidents on people and the environment. State aid may therefore be justified if the relocation is made for environmental reasons. To ensure that aid is not granted for relocation for other purposes, an administrative or judicial decision of a competent public authority or an agreement between the competent public authority and the undertaking to relocate the firm is required. The eligible costs must take into account any advantages that the firm may obtain due to the relocation.

⁽²¹⁾ Waste management includes re-utilisation, recycling and recovery.

⁽²²⁾ OJ L 10, 14.1.1997, p. 13. Directive as last amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

1.5.11. *Aid involved in tradable permit schemes*

- (55) Tradable permit schemes may involve State aid in various ways, for example, when Member States grant permits and allowances below their market value and this is imputable to Member States. This type of aid may be used to target negative externalities by allowing market-based instruments targeting environmental objectives to be introduced. If the global amount of permits granted by the Member State is lower than the global expected needs of undertakings, the overall effect on the level of environmental protection will be positive. At the individual level of each undertaking, if the allowances granted do not cover the totality of expected needs of the undertaking, the undertaking must either reduce its pollution, thus contributing to the improvement of the level of environmental protection, or buy supplementary allowances on the market, thus paying a compensation for its pollution. To limit the distortion of competition, no over-allocation of allowances can be justified and provision must be made to avoid undue barriers to entry.

- (56) The criteria set out in point 55 form the basis for the Commission's assessment of situations arising during the trading period ending on 31 December 2012. With respect to situations arising during the trading period after that date, the Commission will assess the measures according to whether they are both necessary and proportional. Finally, this will inform the revision of these Guidelines taking into account, in particular, the new Directive on the EU CO₂ Emission Trading System, for the trading period after 31 December 2012.

1.5.12. *Aid in the form of reductions of or exemptions from environmental taxes*

- (57) Reductions of and exemptions from environmental taxes concerning certain sectors or categories of undertakings may make it feasible to adopt higher taxes for other undertakings, thus resulting in an overall improvement of cost internalisation, and to create further incentives to improve on environmental protection. Accordingly, this type of aid may be necessary to target negative externalities indirectly by facilitating the introduction or maintenance of relatively high national environmental taxation. For aid to be compatible, it must be shown that the exemptions or reductions are necessary for all the suggested categories of beneficiaries and that they are proportional in size. This is assumed to be the case if beneficiaries pay at least the Community minimum tax level set by the applicable Directive, if any. Otherwise, the necessity will depend on the extent to which the national tax impacts on production costs as well as on the possibility to pass on the tax to consumers and reduce profit margins. Proportionality will depend on the extent to which the beneficiaries can further reduce their consumption or emission, pay a part of the national tax or enter into environmental agreements to reduce pollution ⁽²³⁾.

⁽²³⁾ The Commission may re-evaluate the approach towards this kind of aid when Directive 2003/96/EC is reviewed.

2. SCOPE OF APPLICATION AND DEFINITIONS

2.1. Scope of application of the Guidelines

- (58) These Guidelines apply to State aid for environmental protection. They will be applied in accordance with other Community policies on State aid, other provisions of the Treaty establishing the European Community and the Treaty on European Union and legislation adopted pursuant to those Treaties.
- (59) These Guidelines apply to aid ⁽²⁴⁾ to support environmental protection in all sectors governed by the EC Treaty. They also apply to those sectors which are subject to specific Community rules on State aid (steel processing, shipbuilding, motor vehicles, synthetic fibres, transport, coal agriculture and fisheries) unless such specific rules provide otherwise.
- (60) The design and manufacture of environmentally friendly products, machines or means of transport with a view to operating with fewer natural resources and action taken within plants or other production units with a view to improving safety or hygiene are not covered by these Guidelines.
- (61) For agriculture and fisheries, these Guidelines apply to aid for environmental protection in favour of undertakings active in the processing and marketing of products. For undertakings active in the processing and marketing of fisheries products, if the aid concerns expenses eligible under Council Regulation (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund ⁽²⁵⁾, the maximum aid rate allowed is the higher of the aid rate provided for in these Guidelines and the aid rate laid down in that Regulation. In the field of agricultural primary production, these Guidelines apply only to measures which are not already governed by the Community guidelines for State aid in the agriculture and forestry sector 2007 to 2013 ⁽²⁶⁾, and in the field of fisheries and aquaculture primary production, they apply only where no specific provisions dealing with environmental aid exist.
- (62) The financing of environmental protection measures relating to air, road, railway, inland waterway and maritime transport infrastructure, including any project of common interest as identified in Decision No 1692/96/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network ⁽²⁷⁾ is not covered by these Guidelines.
- (63) State aid for research, development and innovation in the environmental field is subject to the rules set out in the Community framework for State aid for research and development and innovation ⁽²⁸⁾. However, the market diffusion stage of eco-innovation (acquisition of an eco-innovation asset) is covered by these Guidelines.
- (64) The characteristics of aid for environmental training activities do not justify separate rules to those on aid for training activities generally, and the Commission will therefore examine such aid in accordance with Commission Regulation (EC) No 68/2001 of 12 January 2001 on the application of Articles 87 and 88 of the EC Treaty to training aid ⁽²⁹⁾.
- (65) Consultancy services play an important role in helping small and medium-sized enterprises to make progress in environmental protection. In particular, they can be used to conduct eco-audits or to evaluate the economic benefits of an environmentally friendly investment for the undertaking and thus give an incentive to those enterprises to undertake the investment supporting environmental protection. Aid to small and medium-sized enterprises for advisory/consultancy services in the environmental field may be granted under Commission Regulation (EC) No 70/2001 of 12 January 2001 on the application of Articles 87 and 88 of the EC Treaty to State aid for small and medium-sized enterprises ⁽³⁰⁾.
- (66) These Guidelines do not apply to stranded costs as defined in the Commission Communication relating to the methodology for analysing State aid linked to stranded costs ⁽³¹⁾.
- (67) Furthermore, to the extent that the provisions relating to energy saving set out in section 3.1.5 are not applicable, these Guidelines do not apply to State aid to investments in infrastructure related to district heating, which will be assessed under Article 87(3)(c) of the EC Treaty.
- (68) In some Member States, companies may be subject to environmental taxes and, at the same time, participate in tradable permit schemes. The Commission has not gathered sufficient experience in assessing the compatibility of reductions of environmental taxes in such situations. Consequently, it is too early for the Commission to provide general guidance thereon. Instead, the assessment of such cases, to the extent that they constitute State aid within the meaning of Article 87(1) of the EC Treaty, will take place on the basis of Article 87(3)(c) of the EC Treaty.

⁽²⁴⁾ These guidelines do not discuss the concept of State aid, which derives from Article 87(1) of the EC Treaty and from the case law of the Court of Justice of the European Communities.

⁽²⁵⁾ OJ L 223, 15.8.2006, p. 1.

⁽²⁶⁾ OJ C 319, 27.12.2006, p. 1.

⁽²⁷⁾ OJ L 228, 9.9.1996, p. 1. Decision as last amended by Council Regulation (EC) No 1791/2006 (OJ L 363, 20.12.2006, p. 1).

⁽²⁸⁾ OJ C 323, 30.12.2006, p. 1.

⁽²⁹⁾ OJ L 10, 13.1.2001, p. 20. Regulation as last amended by Regulation (EC) No 1976/2006 (OJ L 368, 23.12.2006, p. 85). When the new block exemption regulation covering training aid is adopted, the new regulation will apply.

⁽³⁰⁾ OJ L 10, 13.1.2001, p. 33. Regulation as last amended by Regulation (EC) No 1976/2006. When the new block exemption regulation covering aid to SMEs is adopted, the new regulation will apply.

⁽³¹⁾ Adopted by the Commission on 26 July 2001 and communicated to Member States by letter ref. SG(2001) D/290869, 6 August 2001.

(69) Finally, some of the means to support fossil fuel power plants or other industrial installations equipped with CO₂ capture, transport and storage facilities, or individual elements of the Carbon Capture Storage chain, envisaged by Member States, could constitute State aid but, in view of the lack of experience, it is too early to lay down guidelines relating to the authorisation of any such aid. Given the strategic importance of this technology for the Community in terms of energy security, reduction of greenhouse gas emissions and achievement of its agreed long-term objective to limit climate change to 2 °C above pre-industrial levels and given also the Commission's stated support for the construction of industrial-scale demonstration plants up to 2015, provided that they are environmentally safe and contribute to environmental protection, the Commission will have a generally positive attitude towards State aid for such projects⁽³²⁾. Projects could be assessed under Article 87(3)(c) of the EC Treaty or be eligible as important projects of common European interest under the conditions set out in Article 87(3)(b) of the Treaty and point 147 of these Guidelines.

2.2. Definitions

(70) For the purpose of these Guidelines the following definitions shall apply:

- 1) *environmental protection* means any action designed to remedy or prevent damage to physical surroundings or natural resources by a beneficiary's own activities, to reduce the risk of such damage or to lead to more efficient use of natural resources, including energy-saving measures and the use of renewable sources of energy⁽³³⁾;
- 2) *energy-saving measure* means any action which enables undertakings to reduce the amount of energy used in particular in their production cycle;
- 3) *Community standard* means
 - i) a mandatory Community standard setting the levels to be attained in environmental terms by individual undertakings⁽³⁴⁾, or
 - ii) the obligation under Directive 2008/1/EC to use the best available techniques as set out in the most recent relevant information published by the Commission pursuant to Article 17(2) of that Directive;

⁽³²⁾ See Commission proposal for a Directive of the European Parliament and of the Council on the geological storage of carbon dioxide COM(2008) 18 final.

⁽³³⁾ See in particular the Sixth Environment Action Programme.

⁽³⁴⁾ Consequently, standards or targets set at Community level which are binding for Member States but not for individual undertakings are not deemed to be 'Community standards'.

4) *eco-innovation* means all forms of innovation activities resulting in or aimed at significantly improving environmental protection. Eco-innovation includes new production processes, new products or services, and new management and business methods, whose use or implementation is likely to prevent or substantially reduce the risks for the environment, pollution and other negative impacts of resources use, throughout the life cycle of related activities.

The following are not considered innovations:

- i) minor changes or improvements;
 - ii) an increase in production or service capabilities through the addition of manufacturing or logistical systems which are very similar to those already in use;
 - iii) changes in business practices, workplace organisation or external relations that are based on organisational methods already in use in the undertaking;
 - iv) changes in management strategy;
 - v) mergers and acquisitions;
 - vi) ceasing to use a process;
 - vii) simple capital replacement or extension;
 - viii) changes resulting purely from changes in factor prices, customisation, regular seasonal and other cyclical changes;
 - ix) trading of new or significantly improved products;
- 5) *renewable energy sources* means the following renewable non-fossil energy sources: wind, solar, geothermal, wave, tidal, hydropower installations, biomass, landfill gas, sewage treatment plant gas and biogases;
 - 6) *biomass* means the biodegradable fraction of products, waste and residues from agriculture (including vegetal and animal substances), forestry and related industries, as well as the biodegradable fraction of industrial and municipal waste;
 - 7) *biofuels* means liquid or gaseous fuel for transport produced from biomass;
 - 8) *sustainable biofuels* means biofuels fulfilling the sustainability criteria set out in Article 15 of the proposal for a Directive of the European Parliament and the Council on the promotion of the use of energy from renewable sources⁽³⁵⁾;

⁽³⁵⁾ COM(2008) 19 final. Once the Directive has been adopted by the European Parliament and the Council, the Commission will apply the sustainability criteria in the final text.

- 9) *energy from renewable energy sources* means energy produced by plants using only renewable energy sources, as well as the share in terms of calorific value of energy produced from renewable energy sources in hybrid plants which also use conventional energy sources. It includes renewable electricity used for filling storage systems, but excludes electricity produced as a result of storage systems;
- 10) *cogeneration* means the simultaneous generation in one process of thermal energy and electrical and/or mechanical energy;
- 11) *high-efficiency cogeneration* means cogeneration meeting the criteria of Annex III to Directive 2004/8/EC and satisfying the harmonised efficiency reference values established by Commission Decision 2007/74/EC of 21 December 2006 establishing harmonised efficiency reference values for separate production of electricity and heat in application of Directive 2004/8/EC of the European Parliament and of the Council ⁽³⁶⁾;
- 12) *district heating* means the supply of heat, either in the form of steam or hot water, from a central source of production through a transmission and distribution system to multiple buildings, for the purpose of heating;
- 13) *energy-efficient district heating* means district heating which, with regard to generation, either complies with the criteria for high-efficiency cogeneration or, in the case of heat-only boilers, meets the reference values for separate heat production laid down in Decision 2007/74/EC;
- 14) *environmental tax* means a tax whose specific tax base has a clear negative effect on the environment or which seeks to tax certain activities, goods or services so that the environmental costs may be included in their price and/or so that producers and consumers are oriented towards activities which better respect the environment;
- 15) *Community minimum tax level* means the minimum level of taxation provided for in Community legislation. For energy products and electricity, the Community minimum tax level means the minimum level of taxation laid down in Annex I to Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity ⁽³⁷⁾;
- 16) *small and medium-sized enterprises* (hereafter 'SMEs'), *small enterprises* and *medium-sized enterprises* (or 'undertakings') mean such enterprises within the meaning of Regulation (EC) No 70/2001 or any regulation replacing it;
- 17) *large enterprises* and *large undertakings* means enterprises which are not within the definition of small and medium-sized enterprises;
- 18) *aid* means any measure fulfilling all the criteria laid down in Article 87(1) of the EC Treaty;
- 19) *aid intensity* means the gross aid amount expressed as a percentage of the eligible costs. All figures used must be taken before any deduction of tax or other charge. Where aid is awarded in a form other than a grant, the aid amount must be the grant equivalent of the aid. Aid payable in several instalments must be calculated at its value at the moment of granting. The interest rate to be used for discounting purposes and for calculating the aid amount in a soft loan must be the reference rate applicable at the time of grant. The aid intensity is calculated per beneficiary;
- 20) *operating benefits* means, for the purposes of calculating eligible costs, in particular cost savings or additional ancillary production directly linked to the extra investment for environmental protection and, where applicable, benefits accruing from other support measures whether or not they constitute State aid (operating aid granted for the same eligible costs, feed-in tariffs or other support measures). By contrast, proceeds flowing from the sale by the undertaking of tradable permits issued under the European Trading System will not be deemed to constitute operating benefits;
- 21) *operating costs* means, for the purposes of calculating eligible costs, in particular additional production costs flowing from the extra investment for environmental protection;
- 22) *tangible assets* means, for the purposes of calculating eligible costs, investments in land which are strictly necessary in order to meet environmental objectives, investments in buildings, plant and equipment intended to reduce or eliminate pollution and nuisances, and investments to adapt production methods with a view to protecting the environment;
- 23) *intangible assets* means, for the purposes of calculating eligible costs, spending on technology transfer through the acquisition of operating licences or of patented and non-patented know-how where the following conditions are complied with:

- i) the intangible asset concerned must be regarded as a depreciable asset,

⁽³⁶⁾ OJ L 32, 6.2.2007, p. 183.

⁽³⁷⁾ OJ L 283, 31.10.2003, p. 51. Directive as last amended by Directive 2004/75/EC (OJ L 157, 30.4.2004, p. 100).

- ii) it must be purchased on market terms, from an undertaking in which the acquirer has no power of direct or indirect control,
- iii) it must be included in the assets of the undertaking, and remain in the establishment of the recipient of the aid and be used there for at least five years. This condition does not apply if the intangible asset is technically out of date. If it is sold during those five years, the yield from the sale must be deducted from the eligible costs and all or part of the amount of aid must, where appropriate, be reimbursed;

24) *internalisation of costs* means the principle that all costs associated with the protection of the environment should be included in the polluting undertakings' production costs;

25) *the polluter pays principle* means that the costs of measures to deal with pollution should be borne by the polluter who causes the pollution, unless the person responsible for the pollution cannot be identified or cannot be held liable under Community or national legislation or may not be made to bear the costs of remediation. Pollution in this context is the damage caused by the polluter by directly or indirectly damaging the environment, or by creating conditions leading to such damage⁽³⁸⁾, to physical surroundings or natural resources;

26) *polluter* means someone who directly or indirectly damages the environment or who creates conditions leading to such damage⁽³⁹⁾;

27) *contaminated site* means a site where there is a confirmed presence, caused by man, of dangerous substances of such a level that they pose a significant risk to human health or the environment taking into account current and approved future use of the land.

3. COMPATIBILITY OF AID UNDER ARTICLE 87(3) OF THE EC TREATY

3.1. Compatibility of aid under Article 87(3)(c) of the EC Treaty

(71) State aid for environmental protection is compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty if, on the basis of the balancing test, it leads to increased environmental protection activities without adversely affecting trading conditions to an extent

⁽³⁸⁾ Council Recommendation of 3 March 1975 regarding cost allocation and action by public authorities on environmental matters (OJ L 194, 25.7.1975, p. 1).

⁽³⁹⁾ Recommendation of 3 March 1975 regarding cost allocation and action by public authorities on environmental matters.

contrary to the common interest. In this context, the duration of aid schemes should be subject to reasonable time limits, without prejudice to the possibility for a Member State to re-notify a measure after the time limit set by the Commission decision has passed. Member States may support notifications of aid measures by rigorous evaluations of similar past aid measures demonstrating the incentive effect of the aid.

(72) The measures described in points 73 to 146 may be found to be compatible under Article 87(3)(c).

3.1.1. *Aid for undertakings which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards*

(73) Investment aid enabling undertakings to go beyond Community standards for environmental protection or to increase the level of environmental protection in the absence of Community standards will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty provided that the conditions set out in points 74 to 84 and section 3.2 are fulfilled.

(74) The aided investment must fulfil one of the following two conditions:

a) the investment enables the beneficiary to increase the level of environmental protection resulting from its activities by going beyond the applicable Community standards, irrespective of the presence of mandatory national standards that are more stringent than the Community standard, or

b) the investment enables the beneficiary to increase the level of environmental protection resulting from its activities in the absence of Community standards.

(75) Aid may not be granted where improvements bring undertakings into compliance with Community standards already adopted and not yet in force⁽⁴⁰⁾.

Aid intensity

(76) The aid intensity must not exceed 50 % of the eligible investment cost as defined in points 80 to 84.

⁽⁴⁰⁾ However, aid for early adaptation to future standards and for the acquisition of new transport vehicles is possible under the conditions developed in sections 3.1.3 and 3.1.2.

(77) Where the investment aid is granted in a genuinely competitive bidding process on the basis of clear, transparent and non discriminatory criteria, effectively ensuring that the aid is limited to the minimum necessary for achieving the environmental gain, the aid intensity may amount to up to 100 % of the eligible investment cost as defined in points 80 to 84. Such a bidding process must be non-discriminatory and provide for the participation of a sufficient number of undertakings. In addition, the budget related to the bidding process must be a binding constraint in the sense that not all participants can receive aid. Finally, the aid must be granted on the basis of the initial bid submitted by the bidder, thus excluding subsequent negotiations.

(78) Where the investment concerns the acquisition of an eco-innovation asset or the launching of an eco-innovation project, the aid intensity may be increased by 10 percentage points, provided that following conditions are fulfilled:

- a) the eco-innovation asset or project must be new or substantially improved compared to the state of the art in its industry in the Community. The novelty could, for example, be demonstrated by the Member States on the basis of a precise description of the innovation and of market conditions for its introduction or diffusion, comparing it with state-of-the-art processes or organisational techniques generally used by other undertakings in the same industry;
- b) the expected environmental benefit must be significantly higher than the improvement resulting from the general evolution of the state of the art in comparable activities ⁽⁴¹⁾;
- c) the innovative character of these assets or projects involves a clear degree of risk, in technological, market or financial terms, which is higher than the risk generally associated with comparable non-innovative assets or projects. This risk could be demonstrated by the Member State for instance in terms of: costs in relation to the undertaking's turnover, time required for the development, expected gains from the eco-innovation in comparison with the costs, probability of failure.

(79) Where the investment aid for undertakings going beyond Community standards or increasing the level of environmental protection in the absence of such Community standards is to be given to SMEs, the aid intensity may be

⁽⁴¹⁾ When assessing point 78(b), if quantitative parameters can be used to compare eco-innovative activities with standard, non-innovative activities, 'significantly higher' means that the marginal improvement expected from eco-innovative activities, in terms of reduced environmental risk or pollution, or improved efficiency in energy or resources, should be at least twice as high as the marginal improvement expected from the general evolution of comparable non-innovative activities.

Where the proposed approach is not appropriate for a given case, or if no quantitative comparison is possible, the application file for State aid should contain a detailed description of the method used to assess this criterion, ensuring a standard comparable to that of the proposed method.

increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Aid intensity for aid to undertakings going beyond Community standards or increasing the level of environmental protection in the absence of Community standards <i>except for eco-innovation</i>	Aid intensity for aid to undertakings going beyond Community standards or increasing the level of environmental protection in the absence of Community standards <i>in the field of eco-innovation</i>
Small enterprises	70 %	80 %
Medium-sized enterprises	60 %	70 %
Large enterprises	50 %	60 %

Calculation of eligible costs — methodology

(80) Eligible costs must be limited to the extra investment costs necessary to achieve a higher level of environmental protection than required by the Community standards and will be calculated in two steps. First, the cost of the investment directly related to environmental protection will be established by reference to the counterfactual situation, where appropriate. Second, operating benefits will be deducted and operating costs will be added.

(81) Identifying the part of the investment directly related to environmental protection:

a) where the cost of investing in environmental protection can be easily identified in the total investment cost, this precise environmental protection-related cost constitutes the eligible costs ⁽⁴²⁾;

b) in all other cases the extra investment costs must be established by comparing the investment with the counterfactual situation in the absence of State aid. The correct counterfactual is the cost of a technically comparable investment that provides a lower degree of environmental protection (corresponding to mandatory Community standards, if they exist) and that would credibly be realised without aid ('reference investment'). Technically comparable investment means an investment with the same production capacity and all other technical characteristics (except those directly related to the extra investment for environmental protection). In addition, such a reference investment must, from a business point of view, be a credible alternative to the investment under assessment.

⁽⁴²⁾ This could be the case, for example, where an existing production process is up-graded and where the very parts which improve the environmental performance can be clearly identified.

- (82) Identifying operating benefits/costs: eligible costs must, unless specified otherwise in this chapter, be calculated net of any operating benefits and operating costs related to the extra investment for environmental protection and arising during the first five years of the life of the investment concerned. This means that such operating benefits must be deducted and such operating costs may be added to the extra investment costs.
- (83) The eligible investment may take the form of investment in tangible assets and/or in intangible assets.
- (84) In the case of investments aiming at obtaining a level of environmental protection higher than Community standards the counterfactual should be chosen as follows:
- where the undertaking is adapting to national standards adopted in the absence of Community standards**, the eligible costs consist of the additional investment costs necessary to achieve the level of environmental protection required by the national standards;
 - where the undertaking is adapting to, or goes beyond, national standards which are more stringent than the relevant Community standards or goes beyond Community standards**, the eligible costs consist of the additional investment costs necessary to achieve a level of environmental protection higher than the level required by the Community standards. The cost of investments needed to reach the level of protection required by the Community standards is not eligible;
 - where no standards exist**, eligible costs consist of the investment costs necessary to achieve a higher level of environmental protection than that which the undertaking or undertakings in question would achieve in the absence of any environmental aid.

3.1.2. *Aid for the acquisition of new transport vehicles which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards*

- (85) The general rules set out in points 73 to 84 apply to aid for undertakings improving on Community standards or increasing the level of environmental protection in the absence of Community standards in the transport sector. By derogation from point 75, aid for acquisition of new transport vehicles for road, railway, inland waterway and maritime transport complying with adopted Community standards is permissible, when such acquisition occurs

before their entry into force and where the new Community standards, once mandatory, will not apply retroactively to already purchased vehicles.

- (86) For retrofitting operations with an environmental protection objective in the transport sector the eligible costs are the total extra net costs involved according to the methodology of calculating eligible costs set out in points 80 to 84 if the existing means of transport are upgraded to environmental standards that were not yet in force at the date of entry into operation of those means of transport or if the means of transport are not subject to any environmental standards.

3.1.3. *Aid for early adaptation to future Community standards*

- (87) Aid for complying with new Community standards which increase the level of environmental protection and are not yet in force will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty if the Community standards have been adopted, provided that the investment is implemented and finalised at least one year before the entry into force of the standard.

Aid intensity

- (88) The maximum aid intensities are 25 % for small enterprises, 20 % for medium-sized enterprises and 15 % for large enterprises if the implementation and finalisation take place more than three years before the mandatory date of transposition or date of entry into force. The aid intensity is 20 % for small enterprises, 15 % for medium-sized enterprises and 10 % for large enterprises if the implementation and finalisation take place between one and three years before the mandatory date of transposition or date of entry into force.

	Aid intensity for aid for early adaptation to Community standards when the implementation and finalisation take place	
	More than three years before the entry into force of the standard	Between one and three years before the entry into force of the standard
Small enterprises	25 %	20 %
Medium-sized enterprises	20 %	15 %
Large Enterprises	15 %	10 %

Eligible costs

- (89) Eligible costs must be limited to the extra investment costs necessary to achieve the level of environmental protection required by the Community standard compared to the existing level of environmental protection required prior to the entry into force of this standard.
- (90) Eligible costs must be calculated net of any operating benefits and operating costs related to the extra investment and arising during the first five years of the life of this investment, as set out in points 81, 82 and 83.

3.1.4. *Aid for environmental studies*

(91) Aid to companies for studies directly linked to investments for the purposes of achieving standards under the conditions set out in section 3.1.1, of achieving energy saving under the conditions set out in section 3.1.5, of producing renewable energy under the conditions set out in section 3.1.6 will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty if the conditions set out in this chapter are fulfilled. This will also apply in cases where, following the findings of a preparatory study, the investment under investigation is not undertaken.

(92) The aid intensity must not exceed 50 % of the costs of the study.

(93) Where the study is undertaken on behalf of an SME, the aid intensity may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Environmental studies
Small enterprises	70 %
Medium-sized enterprises	60 %
Large enterprises	50 %

3.1.5. *Aid for energy saving*

(94) Investment and/or operating aid enabling undertakings to achieve energy savings will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty, if the following conditions are fulfilled:

3.1.5.1. *Investment aid**Aid intensity*

(95) The aid intensity must not exceed 60 % of the eligible investment costs.

(96) Where the investment aid for energy saving is to be given to SMEs, the aid intensity may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Aid intensity for energy saving
Small enterprises	80 %
Medium-sized enterprises	70 %
Large enterprises	60 %

(97) Where the investment aid is granted in a genuinely competitive bidding process on the basis of clear, transparent and non discriminatory criteria, effectively ensuring that the aid is limited to the minimum necessary for achieving the maximum energy saving, the aid intensity may amount

to up to 100 % of the eligible investment cost as defined in point 98. Such a bidding process must be non-discriminatory and must provide for the participation of a sufficient number of undertakings. In addition, the budget related to the bidding process must be a binding constraint in the sense that not all participants can receive aid. Finally, the aid must be granted on the basis of the initial bid submitted by the bidder, thus excluding subsequent negotiations.

Eligible costs

(98) Eligible costs must be limited to the extra investment costs necessary to achieve energy savings beyond the level required by the Community standards.

The calculation of extra costs must respect the following rules:

a) *the part of the investment directly related to energy saving* must be identified in accordance with the rules laid down in points 81 and 83 of these Guidelines;

b) *a level of energy saving higher than Community standards* must be identified in accordance with the rules laid down in point 84 of these Guidelines;

c) *identifying operating benefits/costs*: eligible costs must be calculated net of any operating benefits and operating costs related to the extra investment for energy saving and arising during the first three years of the life of this investment in the case of SMEs, the first four years in the case of large undertakings that are not part of the EU CO₂ Emission Trading System and the first five years in the case of large undertakings that are part of the EU CO₂ Emission Trading System. For large undertakings this period can be reduced to the first three years of the life of this investment where the depreciation time of the investment can be demonstrated not to exceed three years.

3.1.5.2. *Operating aid*

(99) Operating aid for energy saving shall be granted only if the following conditions are met:

a) the aid is limited to compensating for net extra production costs resulting from the investment, taking account of benefits resulting from energy saving⁽⁴³⁾. In determining the amount of operating aid, any investment aid granted to the undertaking in question in respect of the new plant must be deducted from production costs;

⁽⁴³⁾ The concept of production costs must be understood as being net of any aid but inclusive of a normal level of profit.

b) the aid is subject to a limited duration of five years.

(100) In the case of aid which is gradually reduced, the aid intensity must not exceed 100 % of the extra costs in the first year but must have fallen in a linear fashion to zero by the end of the fifth year. In the case of aid which does not decrease gradually, the aid intensity must not exceed 50 % of the extra costs.

3.1.6. Aid for renewable energy sources

(101) Environmental investment and operating aid for the promotion of energy from renewable sources will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty, if the conditions in points 102 to 111 are fulfilled. State aid may be justified if there is no mandatory Community standard concerning the share of energy from renewable sources for individual undertakings. Aid for investment and/or operating aid for the production of biofuels shall be allowed only with regard to sustainable biofuels.

3.1.6.1. Investment aid

Aid intensity

(102) The aid intensity must not exceed 60 % of the eligible investment costs.

(103) Where the investment aid for renewable energy sources is to be given to SMEs, the aid intensity may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Aid intensity for renewable energy sources
Small enterprises	80 %
Medium-sized enterprises	70 %
Large enterprises	60 %

(104) Where the investment aid is granted in a genuinely competitive bidding process on the basis of clear, transparent and non discriminatory criteria, effectively ensuring that the aid is limited to the minimum necessary for delivering maximum renewable energy, the aid intensity may amount to up to 100 % of the eligible investment cost as defined in points 105 and 106. Such a bidding process must be non-discriminatory and must provide for the participation of a sufficient number of undertakings. In addition, the budget related to the bidding process must be a binding constraint in the sense that not all participants can receive aid. Finally, the aid must be granted on the basis of the initial bid submitted by the bidder, thus excluding subsequent negotiations.

Eligible costs

(105) For renewable energy, eligible investment costs must be limited to the extra investment costs borne by the beneficiary compared with a conventional power plant or with a

conventional heating system with the same capacity in terms of the effective production of energy.

(106) Eligible costs must be calculated net of any operating benefits and operating costs related to the extra investment for renewable sources of energy and arising during the first five years of the life of this investment, as set out in points 81, 82 and 83.

3.1.6.2. Operating aid

(107) Operating aid for the production of renewable energy may be justified in order to cover the difference between the cost of producing energy from renewable energy sources and the market price of the form of energy concerned. That applies to the production of renewable energy for the purposes of subsequently selling it on the market as well as for the purposes of the undertaking's own consumption.

(108) Member States may grant aid for renewable energy sources as follows:

(109) **Option 1**

a) Member States may grant operating aid to compensate for the difference between the cost of producing energy from renewable sources, including depreciation of extra investments for environmental protection, and the market price of the form of energy concerned. Operating aid may then be granted until the plant has been fully depreciated according to normal accounting rules. Any further energy produced by the plant will not qualify for any assistance. However, the aid may also cover a normal return on capital.

b) Where aid is granted in accordance with point (a) any investment aid granted to the undertaking in question in respect of the new plant must be deducted from production costs when determining the amount of operating aid. When notifying aid schemes to the Commission, Member States must state the precise support mechanisms and in particular the methods of calculating the amount of aid.

c) Unlike most other renewable sources of energy, biomass requires relatively low investment costs, but higher operating costs. The Commission will, therefore, be amenable to operating aid for the production of renewable energy from biomass exceeding the amount of investment where Member States can show that the aggregate costs borne by the undertakings after plant depreciation are still higher than the market prices of the energy.

(110) Option 2

- a) Member States may also grant support for renewable energy sources by using market mechanisms such as green certificates or tenders. These market mechanisms allow all renewable energy producers to benefit indirectly from guaranteed demand for their energy, at a price above the market price for conventional power. The price of these green certificates is not fixed in advance but depends on supply and demand.
- b) Where the market mechanisms constitute State aid, they may be authorised by the Commission if Member States can show that support is essential to ensure the viability of the renewable energy sources concerned, does not in the aggregate result in overcompensation and does not dissuade renewable energy producers from becoming more competitive. The Commission will authorise such aid systems for a period of ten years.

(111) Option 3

Furthermore, Member States may grant operating aid in accordance with the provisions set out in point 100.

3.1.7. Aid for cogeneration

(112) Environmental investment and operating aid for cogeneration will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty, provided that the cogeneration unit satisfies the definition of high-efficiency cogeneration set out in point 70(11), and provided that for investment aid:

- (a) a new cogeneration unit will overall make primary energy savings compared to separate production as defined by Directive 2004/8/EC and Decision 2007/74/EC;
- (b) improvement of an existing cogeneration unit or conversion of an existing power generation unit into a cogeneration unit will result in primary energy savings compared to the original situation.

(113) For operating aid, an existing cogeneration must satisfy both the definition of high-efficiency cogeneration set out in point 70(11) and the requirement that there are overall primary energy savings compared to separate production as defined by Directive 2004/8/EC and Decision 2007/74/EC.

3.1.7.1. Investment aid*Aid intensity*

- (114) The aid intensity must not exceed 60 % of the eligible investment costs.
- (115) Where the investment aid for cogeneration is to be given to SMEs, the aid intensity may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Aid intensity for high-efficiency cogeneration
Small enterprises	80 %
Medium-sized enterprises	70 %
Large enterprises	60 %

(116) Where the investment aid is granted in a genuinely competitive bidding process on the basis of clear, transparent and non discriminatory criteria, effectively ensuring that the aid is limited to the minimum necessary for achieving the maximum energy saving, the aid intensity may amount to up to 100 % of the eligible investment cost as defined in points 117 and 118. Such a bidding process must be non-discriminatory and must provide for the participation of a sufficient number of companies. In addition, the budget related to the bidding process must be a binding constraint in a sense that not all participants can receive aid. Finally, the aid must be granted on the basis of the initial bid submitted by the bidder, thus excluding subsequent negotiations.

Eligible costs

- (117) Eligible costs must be limited to the extra investment costs necessary to realise a high-efficiency cogeneration plant as compared to the reference investment.
- (118) Eligible costs must be calculated net of any operating benefits and operating costs related to the extra investment and arising during the first five years of the life of this investment, as set out in points 81 to 83.

3.1.7.2. Operating aid

(119) Operating aid for high-efficiency cogeneration may be granted in accordance with the rules for operating aid for renewable energy laid down in section 3.1.6.2:

- a) to undertakings distributing electric power and heat to the public where the costs of producing such electric power or heat exceed its market price. The decision as to whether the aid is necessary will take account of the costs and revenue resulting from the production and sale of the electric power or heat;
- b) for the industrial use of the combined production of electric power and heat where it can be shown that the production cost of one unit of energy using that technique exceeds the market price of one unit of conventional energy. The production cost may include the plant's normal return on capital, but any gains by the undertaking in terms of heat production must be deducted from production costs.

3.1.8. *Aid for energy-efficient district heating*

- (120) Environmental investment aid in energy-efficient district heating installations ⁽⁴⁴⁾ will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty, provided that it leads to primary energy savings and that the beneficiary district heating installation satisfies the definition of energy-efficient district heating set out in point 70(13) and that:
- the combined operation of the generation of heat (as well as electricity in the case of cogeneration) and the distribution of heat will result in primary energy savings; or
 - the investment is meant for the use and distribution of waste heat for district heating purposes.

Aid intensity

- (121) The aid intensity for district heating installations must not exceed 50 % of the eligible investment costs. If the aid is intended solely for the generation part of a district heating installation, energy-efficient district heating installations using renewable sources of energy or cogeneration will be covered by the rules set out in sections 3.1.6 and 3.1.7 respectively.
- (122) Where the investment aid for energy-efficient district heating is to be given to SMEs, the aid intensity may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Aid intensity for energy-efficient district heating using conventional sources of energy
Small enterprises	70 %
Medium-sized enterprises	60 %
Large enterprises	50 %

- (123) Where the investment aid is granted in a genuinely competitive bidding process on the basis of clear, transparent and non discriminatory criteria, effectively ensuring that the aid is limited to the minimum necessary for achieving the maximum energy saving, the aid intensity may amount to up to 100 % of the eligible investment cost as defined in points 124 and 125. Such a bidding process must be non-discriminatory and must provide for the participation of a sufficient number of undertakings. In addition, the budget related to the bidding process must be a binding constraint in the sense that not all participants can receive aid. Finally, the aid must be granted on the basis of the initial bid submitted by the bidder, thus excluding subsequent negotiations.

⁽⁴⁴⁾ To the exclusion of district heating infrastructure the financing of which does not fall within the scope of the present Guidelines but which will be assessed only under Article 87(3)(c).

Eligible costs

- (124) Eligible costs must be limited to the extra investment costs necessary to realise an investment leading to energy-efficient district heating as compared to the reference investment.
- (125) Eligible costs must be calculated net of any operating benefits and operating costs related to the extra investment and arising during the first five years of the life of this investment, as set out in points 81 to 83.

3.1.9. *Aid for waste management*

- (126) Environmental investment aid for the management of waste of other undertakings, including activities of re-utilisation, recycling and recovery, will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty, provided that such management is in accordance with the hierarchical classification of the principles of waste management ⁽⁴⁵⁾ and is in accordance with the conditions set out in point 127.
- (127) Investment aid for waste management shall be granted only if each of the following conditions are met:
- the investment is aimed at reducing pollution generated by other undertakings ('polluters') and does not extend to pollution generated by the beneficiary of the aid;
 - the aid does not indirectly relieve the polluters from a burden that should be borne by them under Community law, or from a burden that should be considered a normal company cost for the polluters;
 - the investment goes beyond the 'state of the art' ⁽⁴⁶⁾ or uses conventional technologies in an innovative manner;
 - the materials treated would otherwise be disposed of, or be treated in a less environmentally friendly manner;

⁽⁴⁵⁾ Classification given in the Communication from the Commission on the review of the Community Strategy for Waste Management (COM(96) 399 final, 30.7.1996). In that communication, the Commission stresses that waste management is a priority objective for the Community in order to reduce the risks to the environment. The concept of waste treatment must be looked at from three angles: re-utilisation, recycling and recovery. Waste whose production is unavoidable must be treated and eliminated without danger. In its Communication on a Thematic Strategy for the prevention and recycling of waste (COM(2005) 666), the Commission reiterated its commitment to these principles and allows for concrete measures towards promoting prevention, such as eco-design of processes and products or incentives to SMEs to put in place waste prevention measures, and recycling.

⁽⁴⁶⁾ 'State of the art' shall mean a process in which the use of a waste product to manufacture an end product is economically profitable normal practice. Where appropriate, the concept of 'state of the art' must be interpreted from a Community technological and common market perspective.

- e) the investment does not merely increase demand for the materials to be recycled without increasing collection of those materials.

Aid intensity

- (128) The aid intensity must not exceed 50 % of the eligible investment costs.
- (129) Where the investment aid for waste management is to be given to SMEs, the aid intensity may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Aid intensity for waste management
Small enterprises	70 %
Medium-sized enterprises	60 %
Large enterprises	50 %

Eligible costs

- (130) Eligible costs must be limited to the extra investment costs necessary to realise an investment leading to waste management and borne by the beneficiary compared to the reference investment, that is to say, a conventional production not involving waste management with the same capacity. The cost of such reference investment must be deducted from the eligible cost.
- (131) Eligible costs must be calculated net of any operating benefits and operating costs related to the extra investment for waste management and arising during the first five years of the life of this investment ⁽⁴⁷⁾, as set out in points 81 to 83.

3.1.10. Aid for the remediation of contaminated sites

- (132) Investment aid to undertakings repairing environmental damage by remediating contaminated sites will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty ⁽⁴⁸⁾ provided that it leads to an improvement of environmental protection. The environmental damage concerned covers damage to the quality of the soil or of surface water or groundwater.

Where the polluter is clearly identified, that person must finance the remediation in accordance with the 'polluter pays' principle, and no State aid may be granted. In this

⁽⁴⁷⁾ If the investment is concerned solely with environmental protection without any other economic benefits, no additional reduction will be applied in determining the eligible costs.

⁽⁴⁸⁾ Remediation work carried out by public authorities on their own land is not as such subject to Article 87 of the Treaty. Problems of State aid may, however, arise if the land is sold after remediation at a price below its market value. In this respect, the Commission Communication on State aid elements in sales of land and buildings by public authorities (OJ C 209, 10.7.1997, p. 3) is still applicable.

context, 'polluter' refers to the person liable under the law applicable in each Member State, without prejudice to the adoption of Community rules in the matter.

Where the polluter is not identified or cannot be made to bear the costs, the person responsible for the work may receive aid.

Aid intensity

- (133) Aid for the remediation of contaminated sites may amount to up to 100 % of the eligible costs.

The total amount of aid may under no circumstances exceed the actual expenditure incurred by the undertaking.

Eligible costs

- (134) The eligible costs are equal to the cost of the remediation work less the increase in the value of the land. All expenditure incurred by an undertaking in remediating its site, whether or not such expenditure can be shown as a fixed asset on its balance sheet, ranks as eligible investment in the case of the remediation of contaminated sites

3.1.11. Aid for the relocation of undertakings

- (135) Investment aid for relocation of undertakings to new sites for environmental protection reasons will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty provided that the following conditions are met:

- a) the change of location must be dictated by environmental protection or prevention grounds and must have been ordered by the administrative or judicial decision of a competent public authority or agreed between the undertaking and the competent public authority;
- b) the undertaking must comply with the strictest environmental standards applicable in the new region where it is located.

- (136) The beneficiary can be:

- a) an undertaking established in an urban area or in a special area of conservation designated under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ⁽⁴⁹⁾, which lawfully carries out (that is to say, it complies with all legal requirements including all environmental standards applicable to it) an activity that creates major pollution and must, on account of that location, move from its place of establishment to a more suitable area; or

⁽⁴⁹⁾ OJ L 206, 22.7.1992, p. 7. Directive as last amended by Directive 2006/105/EC (OJ L 363, 20.12.2006, p. 368).

- b) an establishment or installation falling within the scope of the Seveso II Directive.

Aid intensity

- (137) The aid intensity must not exceed 50 % of the eligible investment costs. The aid intensity may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises, as set out in the table.

	Aid intensity for relocation
Small enterprises	70 %
Medium-sized enterprises	60 %
Large enterprises	50 %

Eligible costs

- (138) In order to determine the amount of eligible costs in the case of relocation aid, the Commission will take into account, in particular:

- a) the following benefits:
- i) the yield from the sale or renting of the plant or land abandoned;
 - ii) the compensation paid in the event of expropriation;
 - iii) any other gains connected with the transfer of the plant, notably gains resulting from an improvement, on the occasion of the transfer, in the technology used and accounting gains associated with better use of the plant;
 - iv) investments relating to any capacity increase;
- b) the following costs:
- i) the costs connected with the purchase of land or the construction or purchase of new plant of the same capacity as the plant abandoned;
 - ii) any penalties imposed on the undertaking for having terminated the contract for the renting of land or buildings, if the administrative or judicial decision ordering the change of location results in the early termination of this contract.

3.1.12. *Aid involved in tradable permit schemes*

- (139) Tradable permit schemes may involve State aid in various ways, for example when permits and allowances are granted for less than their market value and such granting is imputable to Member States.

- (140) State aid involved in tradable permit schemes may be declared compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty, provided that the conditions in points (a) to (d) of this point and point 141 are fulfilled. By derogation point 141 does not apply for the trading period ending on 31 December 2012 for tradable permit schemes in accordance with Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC⁽⁵⁰⁾ (hereafter 'EU ETS')⁽⁵¹⁾:

- a) the tradable permit schemes must be set up in such a way as to achieve environmental objectives beyond those intended to be achieved on the basis of Community standards that are mandatory for the undertakings concerned;
- b) the allocation must be carried out in a transparent way, based on objective criteria and on data sources of the highest quality available, and the total amount of tradable permits or allowances granted to each undertaking for a price below their market value must not be higher than its expected needs as estimated for the situation in absence of the trading scheme;
- c) the allocation methodology must not favour certain undertakings or certain sectors, unless this is justified by the environmental logic of the scheme itself or where such rules are necessary for consistency with other environmental policies;
- d) in particular, new entrants shall not in principle receive permits or allowances on more favourable conditions than existing undertakings operating on the same markets. Granting higher allocations to existing installations compared to new entrants should not result in creating undue barriers to entry.

- (141) The Commission will assess the necessity and the proportionality of State aid involved in a tradable permit scheme according to the following criteria:

- a) the choice of beneficiaries must be based on objective and transparent criteria, and the aid must be granted in principle in the same way for all competitors in the same sector/relevant market if they are in a similar factual situation;
- b) full auctioning must lead to a substantial increase in production costs for each sector or category of individual beneficiaries;

⁽⁵⁰⁾ OJ L 275, 25.10.2003, p. 32. Directive as last amended by Directive 2004/101/EC (OJ L 338, 13.11.2004, p. 18).

⁽⁵¹⁾ The Commission has assessed the State aid involved in the National Allocation Plans under the EU ETS for the trading period ending on 31 December 2012 on the basis of the criteria set out in point 140.

- c) the substantial increase in production costs cannot be passed on to customers without leading to important sales reductions. This analysis may be conducted on the basis of estimations of *inter alia* the product price elasticity of the sector concerned. These estimations will be made in the relevant geographic market. To evaluate whether the cost increase from the tradable permit scheme cannot be passed on to customers, estimates of lost sales as well as their impact on the profitability of the company may be used;
- d) it is not possible for individual undertakings in the sector to reduce emission levels in order to make the price of the certificates bearable. Irreducible consumption may be demonstrated by providing the emission levels derived from best performing technique in the European Economic Area (hereafter 'EEA') and using it as a benchmark. Any undertaking reaching the best performing technique can benefit at most from an allowance corresponding to the increase in production cost from the tradable permit scheme using the best performing technique, and which cannot be passed on to customers. Any undertaking having a worse environmental performance shall benefit from a lower allowance, proportionate to its environmental performance.

3.2. Incentive effect and necessity of aid

- (142) State aid must have an incentive effect. State aid for environmental protection must result in the aid recipient changing its behaviour so that the level of environmental protection is increased.
- (143) The Commission considers that aid does not present an incentive effect for the beneficiary in all cases in which the project has already started prior to the aid application by the beneficiary to the national authorities.
- (144) If the aided project has not started before the aid application, the requirement of incentive effect is presumed to be automatically met for all categories of aid granted to an SME, except in cases where the aid must be assessed in accordance with the detailed assessment in chapter 5.
- (145) For all other aided projects, the Commission will require that the incentive effect is demonstrated by the notifying Member State.
- (146) To demonstrate the incentive effect, the Member State concerned must prove that without the aid, that is to say, in the counterfactual situation, the more environmentally friendly alternative would not have been retained. For this purpose, the Member State concerned must provide information demonstrating:
 - a) that the counterfactual situation is credible;

- b) that the eligible costs have been calculated in accordance with the methodology set out in points 81, 82 and 83, and
- c) that the investment would not be sufficiently profitable without aid, due account being taken of the benefits associated with the investment without aid, including the value of tradable permits which may become available to the undertaking concerned following the environmentally friendly investment.

3.3. Compatibility of aid under Article 87(3)(b) of the EC Treaty

- (147) Aid to promote the execution of important projects of common European interest which are an environmental priority may be considered compatible with the common market according to Article 87(3)(b) of the EC Treaty provided that the following conditions are fulfilled:
 - a) the aid proposal concerns a project which is specific and clearly defined in respect of the terms of its implementation including its participants, its objectives and effects and the means to achieve the objectives. The Commission may also consider a group of projects as together constituting a project;
 - b) the project must be in the common European interest: the project must contribute in a concrete, exemplary and identifiable manner to the Community interest in the field of environmental protection, such as by being of great importance for the environmental strategy of the European Union. The advantage achieved by the objective of the project must not be limited to the Member State or the Member States implementing it, but must extend to the Community as a whole. The project must present a substantive contribution to the Community objectives. The fact that the project is carried out by undertakings in different Member States is not sufficient;
 - c) the aid is necessary and presents an incentive for the execution of the project, which must involve a high level of risk;
 - d) the project is of great importance with regard to its volume: it must be substantial in size and produce substantial environmental effects.
- (148) In order to allow the Commission to properly assess such projects, the common European interest must be demonstrated in practical terms: for example, it must be demonstrated that the project enables significant progress to be made towards achieving specific environmental objectives of the Community.
- (149) The Commission will consider notified projects more favourably if they include a significant own contribution of the beneficiary to the project. It will equally consider more favourably notified projects involving undertakings from a significant number of Member States.

(150) When the aid is considered to be compatible with the common market in accordance with Article 87(3)(b) of the EC Treaty, the Commission may authorise aid at higher rates than otherwise laid down in these Guidelines.

4. AID IN THE FORM OF REDUCTIONS OF OR EXEMPTIONS FROM ENVIRONMENTAL TAXES

(151) Aid in the form of reductions of or exemptions from environmental taxes will be considered compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty provided that it contributes at least indirectly to an improvement of the level of environmental protection and that the tax reductions and exemptions do not undermine the general objective pursued.

(152) In order to be approved under Article 87 of the EC Treaty, reductions of or exemptions from harmonised taxes, in particular those harmonised through Directive 2003/96/EC, must be compatible with the relevant applicable Community legislation and comply with the limits and conditions set out therein.

(153) Aid in the form of tax reductions and exemptions from harmonised environmental taxes is considered to be compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty for a period of 10 years provided the beneficiaries pay at least the Community minimum tax level set by the relevant applicable Directive ⁽⁵²⁾.

(154) Aid in the form of reductions of or exemptions from environmental taxes other than those referred to in point 153 ⁽⁵³⁾ is considered to be compatible with the common market within the meaning of Article 87(3)(c) of the EC Treaty for a period of 10 years provided that the conditions set out in points 155 to 159 are fulfilled.

(155) When analysing tax schemes which include elements of State aid in the form of reductions of or exemptions from such tax, the Commission will analyse in particular the necessity and proportionality of the aid and its effects at the level of the economic sectors concerned.

(156) For this purpose the Commission will rely on information provided by Member States. Information should include, on the one hand, the respective sector(s) or categories of beneficiaries covered by the exemptions/reductions and, on the other hand, the situation of the main beneficiaries in each sector concerned and how the taxation may contribute to environmental protection. The exempted sectors should be properly described and a list of the largest beneficiaries for each sector should be provided (considering notably turnover, market shares and size of the tax base). For each sector, information should be provided as to the best performing techniques within the EEA regarding the reduction of the environmental harm targeted by the tax.

⁽⁵²⁾ See point 70(15).

⁽⁵³⁾ For example, reductions of or exemptions from taxes which are not covered by Community legislation or which are below the Community minimum tax level.

(157) In addition, aid in the form of reductions of or exemptions from environmental taxes must be necessary and proportional.

(158) The Commission will consider the aid to be necessary if the following cumulative conditions are met:

- a) the choice of beneficiaries must be based on objective and transparent criteria, and the aid must be granted in principle in the same way for all competitors in the same sector/relevant market ⁽⁵⁴⁾ if they are in a similar factual situation;
- b) the environmental tax without reduction must lead to a substantial increase in production costs for each sector or category of individual beneficiaries ⁽⁵⁵⁾;
- c) the substantial increase in production costs cannot be passed on to customers without leading to important sales reductions. In this respect, Member States may provide estimations of *inter alia* the product price elasticity of the sector concerned in the relevant geographic market ⁽⁵⁶⁾ as well as estimates of lost sales and/or reduced profits for the companies in the sector/category concerned.

(159) The Commission will consider the aid to be proportional if one of the following conditions is met:

- a) the scheme lays down criteria ensuring that each individual beneficiary pays a proportion of the national tax level which is broadly equivalent to the environmental performance of each individual beneficiary compared to the performance related to the best performing technique within the EEA. Under the aid scheme any undertaking reaching the best performing technique can benefit, at most, from a reduction corresponding to the increase in production costs from the tax, using the best performing technique, and which cannot be passed on to customers. Any undertaking having a worse environmental performance shall benefit from a lower reduction, proportionate to its environmental performance;
- b) aid beneficiaries pay at least 20 % of the national tax, unless a lower rate can be justified in view of a limited distortion of competition;

⁽⁵⁴⁾ As defined in the Commission notice on the definition of the relevant market for the purposes of Community competition law (OJ C 372, 9.12.1997, p. 5).

⁽⁵⁵⁾ With regard to energy products and electricity, 'energy-intensive business' as defined in Article 17(1)(a) of Directive 2003/96/EC shall be regarded as fulfilling this criterion as long as that provision remains in force.

⁽⁵⁶⁾ As defined in the Commission notice on the definition of the relevant market for the purposes of Community competition law.

- c) the reductions or exemptions are conditional on the conclusion of agreements between the Member State and the recipient undertakings or associations of undertakings whereby the undertakings or associations of undertakings commit themselves to achieve environmental protection objectives which have the same effect as if point (a) or (b) or the Community minimum tax level were applied. Such agreements or commitments may relate, among other things, to a reduction in energy consumption, a reduction in emissions or any other environmental measure and must satisfy the following conditions:
- i) the substance of the agreements must be negotiated by each Member State and must specify in particular the targets and fix a time schedule for reaching the targets;
 - ii) Member States must ensure independent ⁽⁵⁷⁾ and timely monitoring of the commitments concluded in these agreements;
 - iii) these agreements must be revised periodically in the light of technological and other developments and stipulate effective penalty arrangements applicable if the commitments are not met.

5. COMPATIBILITY OF AID SUBJECT TO A DETAILED ASSESSMENT

5.1. Measures subject to a detailed assessment

(160) In order to enable the Commission to carry out a more detailed assessment of any substantial amounts of aid granted under authorised schemes and to decide whether such aid is compatible with the common market, Member States must notify it in advance of any individual case of investment or operating aid granted under an authorised scheme or individually where the aid satisfies the following conditions ⁽⁵⁸⁾:

- a) **for measures covered by a BER:** all cases notified to the Commission pursuant to a *duty to notify aid individually* as prescribed in the BER;
- b) **for individual measures covered by these Guidelines** ⁽⁵⁹⁾: all the following cases:
 - i) *investment aid*: where the aid amount exceeds EUR 7.5 million for one undertaking (even if part of an approved aid scheme);

- ii) *operating aid for energy saving*: where the aid amount exceeds EUR 5 million per undertaking for five years;
- iii) *operating aid for the production of renewable electricity and/or combined production of renewable heat*: when the aid is granted to renewable electricity installations in sites where the resulting renewable electricity generation capacity exceeds 125 MW;
- iv) *operating aid for the production of biofuel*: when the aid is granted to a biofuel production installation in sites where the resulting production exceeds 150 000 t per year;
- v) *operating aid for cogeneration*: where aid is granted to cogeneration installation with the resulting cogeneration electricity capacity exceeding 200 MW. Aid for the production of heat from cogeneration will be assessed in the context of notification based on electricity capacity.

(161) Member States may grant operating aid to new plants producing renewable energy on the basis of a calculation of the external costs avoided. Where this method is used to determine the aid amount, the measure must be notified and be subject to detailed assessment, regardless of the thresholds in point 160(b)(iii). The external costs avoided represent a monetary quantification of the additional socio-environmental damage that society would experience if the same quantity of energy were produced by a production plant operating with conventional forms of energy. They will be calculated on the basis of the difference between, on the one hand, the external costs produced and not paid by renewable energy producers and, on the other hand, the external costs produced and not paid by non-renewable energy producers. To carry out these calculations, the Member State will have to use a method of calculation that is internationally recognised and has been validated by the Commission. It will have to provide among other things a reasoned and quantified comparative cost analysis, together with an assessment of competing energy producers' external costs, so as to demonstrate that the aid does genuinely compensate for external costs avoided.

⁽⁵⁷⁾ It is irrelevant for these purposes whether the monitoring is done by a public or a private body.

⁽⁵⁸⁾ This also applies irrespective of whether the individual beneficiary benefits at the same time from a tax exemption or reduction assessed under chapter 4.

⁽⁵⁹⁾ Tax exemptions and reductions from environmental taxes falling under chapter 4 of these guidelines will not be subject to a detailed assessment. However, aid granted in accordance with chapter 3 in the form of fiscal aid will be subject to a detailed assessment if the thresholds in this point are exceeded.

(162) In any event, the amount of aid granted to producers that exceeds the amount of aid resulting from option 1 set out in point 109 for operating aid for renewable sources of energy must be reinvested by the firms in renewable sources of energy in accordance with section 3.1.6.1.

(163) Provided that Member States ensure full cooperation and supply adequate information in a timely manner, the Commission will use its best endeavours to conduct the investigation in a timely manner. Member States are invited to provide all the elements that they consider useful for the assessment of the case. The Member States may, in particular, rely on evaluations of past State aid schemes or measures, impact assessments made by the granting authority and other studies related to environmental protection.

(164) The detailed assessment is a proportionate assessment, depending on the distortion potential of the case. Accordingly, the fact that a detailed assessment is carried out does not necessarily mean that a formal investigation procedure needs to be opened, although this may be the case for certain measures.

5.2. Criteria for economic assessment of individual cases

(165) The detailed assessment will be conducted on the basis of the positive and negative elements specified in sections 5.2.1 and 5.2.2 which will be used in addition to the criteria set out in Chapter 3. The aid intensities set out therein must in any event not be exceeded. Furthermore, the detailed assessment will be conducted on the basis of the specific positive and negative elements, when they are relevant for the type or form of aid.

5.2.1. Positive effects of the aid

(166) The fact that the aid induces undertakings to pursue environmental protection which they would not otherwise have pursued constitutes the main positive element to be taken into consideration when assessing the compatibility of the aid.

5.2.1.1. Existence of a market failure

(167) The Commission will in general not question whether there are negative externalities related to certain types of conduct or the use of certain goods which have harmful effects on the environment. However, the Commission will verify whether the State aid is targeted at this market failure by having a substantial impact on environmental protection. In this context, the Commission will pay attention in particular to the expected contribution of the measure to environmental protection (in quantifiable terms) and the level of environmental protection targeted, as compared to existing Community standards and/or standards in other Member States.

(168) The Commission will also examine the considerations that may justify aid for adapting to national standards going beyond Community standards. The Commission will take into account in particular the nature, type and location of the main competitors of the aid beneficiary, the cost of implementation of the national standards (or tradable permit schemes) for the aid beneficiary had no aid been given, and the comparative costs of implementation of those standards for the main competitors of the aid beneficiary.

5.2.1.2. Appropriate instrument

(169) Account will be taken of whether State aid is an appropriate instrument to obtain the objective of environmental protection, given that other less distortive instruments may achieve the same results and since State aid may breach the PPP.

(170) In its compatibility analysis, the Commission will in particular take account of any impact assessment of the proposed measure which the Member State may have made, including considerations of using policy options other than State aid, and take account of evidence that the PPP will be respected.

5.2.1.3. Incentive effect and necessity of aid

(171) State aid must always have an incentive effect, when it is provided for environmental purposes, that is to say it must result in the recipient changing its behaviour to increase the level of environmental protection. Aid cannot be considered necessary solely because the level of environmental protection is increased. The advantages of new investments or production methods are normally not limited to their environmental effects.

(172) In addition to the calculation of extra costs outlined in Chapter 3, the Commission will take into account the following elements in its analysis:

a) **counterfactual situation:** evidence must be provided about the specific action(s) that would not have been taken by the undertaking without the aid, for instance, a new investment, a more environmentally friendly production process and/or a new product that is more environmentally friendly;

b) **expected environmental effect linked to the change in behaviour:** at least one of the following elements must be present:

i) *increase in the level of environmental protection:* reduction of a specific type of pollution that would not be reduced without the aid;

ii) *increase in speed of the implementation of future standards:* reduction in pollution starting at an earlier point in time owing to the aid;

c) **production advantages:** if there are other advantages linked to the investment in terms of increased capacity, productivity, cost reductions or quality, the incentive effect is normally lower. This is in particular the case if the benefits over the life time of the investment are substantial, possibly to the extent that the extra environmental costs can be recouped even without aid;

- d) **market conditions:** in some markets, notably due to product image and the labelling of production methods, there may be competitive pressure to maintain a high level of environmental protection. If there is evidence that the level of environmental protection resulting from the aid goes beyond the normal behaviour in the market, it is more likely that the aid has an incentive effect;
- e) **possible future mandatory standards:** if there are negotiations at Community level to introduce new or higher mandatory standards which the measure concerned would seek to target, the incentive effect of aid is normally lower;
- f) **level of risk:** if there is a particular risk that the investment will be less productive than expected, the incentive effect of aid will normally be higher;
- g) **level of profitability:** if the level of profitability of the action pursued is negative over the time horizon by which the investment is fully depreciated or the operating aid is intended to be in force, account being taken of all the advantages and risks identified in this point, aid will normally have an incentive effect.
- (173) Where the undertaking is adapting to a national standard going beyond Community standards or adopted in the absence of Community standards, the Commission will verify that the aid beneficiary would have been affected substantially in terms of increased costs and would not have been able to bear the costs associated with the immediate implementation of national standards.

5.2.1.4. Proportionality of the aid

- (174) The Member State should provide evidence that the aid is necessary, that the amount is kept to the minimum and that the selection process is proportional. In its analysis the Commission will consider the following elements:
- a) **accurate calculation of the eligible costs:** evidence that the eligible costs are indeed limited to the extra costs necessary to achieve the level of environmental protection;
- b) **selection process:** the selection process should be conducted in a non-discriminatory, transparent and open manner, without unnecessarily excluding companies that may compete with projects to address the same environmental objective. The selection process should lead to the selection of beneficiaries that can address the environmental objective using the least amount of aid or in the most cost-effective way;
- c) **aid limited to the minimum:** evidence that the aid amount does not exceed the expected lack of profitability including a normal return over the time horizon for which the investment is fully depreciated.

5.2.2. Analysis of the distortion of competition and trade

- (175) In assessing the negative effects of the aid measure, the Commission will focus its analysis of the distortions of competition on the foreseeable impact the environmental aid has on competition between undertakings in the product markets affected ⁽⁶⁰⁾.
- (176) If the aid is proportional, notably if the calculation of the extra investment or operating costs has taken into account all advantages to the undertaking, the negative impact of the aid is likely to be limited. However, as mentioned in section 1.3.6 even where aid is necessary and proportional for the specific undertaking to increase the environmental protection, the aid may result in a change in behaviour of the beneficiary which distorts competition. A profit-seeking undertaking will normally only increase the level of environmental protection beyond mandatory requirements if it considers that this will result at least marginally in some sort of advantage for the undertaking.
- (177) As a starting point, the Commission will assess the likelihood that the beneficiary will be able to increase or maintain sales as a result of the aid. The Commission will in particular consider the following elements:
- a) **reduction in or compensation of production unit costs:** if the new equipment ⁽⁶¹⁾ will lead to reduced costs per unit produced compared to the situation without the aid or if the aid compensates a part of the operating cost, it is likely that the beneficiary will increase its sales. The more price elastic the product, the greater the competition distortion;
- b) **more environmentally friendly production process:** if the beneficiary obtains a more environmentally friendly production process and if it is common through labelling or image to differentiate the product towards consumers on the basis of the level of environmental protection, it is likely that the beneficiary can increase its sales. The greater the consumer preference for environmental product characteristics, the greater the competition distortion;

⁽⁶⁰⁾ A number of markets may be affected by the aid, because the impact of the aid may not be restricted to the market corresponding to the activity that is supported but may extend to other markets, which are connected to that market either because they are upstream, downstream or complementary, or because the beneficiary is already present on them or may be so present in the near future.

⁽⁶¹⁾ The calculation of extra costs may not fully capture all operating benefits, since the benefits are not deducted over the life time of the investment. In addition, certain types of benefits, for example linked to increased productivity and increased production with unaltered capacity, may be difficult to take into account.

- c) **new product:** if the beneficiary obtains a new or higher quality product it is likely that it will increase its sales and possibly gain a 'first mover' advantage. The greater the consumer preference for environmental product characteristics, the greater the competition distortion.

5.2.2.1. Dynamic incentives/crowding out

- (178) State aid for environmental protection may be used strategically to promote innovative environmentally friendly technologies with the aim of giving domestic producers a 'first mover' advantage. Consequently, the aid may distort the dynamic incentives and crowd out investments in the specific technology in other Member States and lead to a concentration of this technology in one Member State. This effect is higher the more competitors reduce their innovative effort as compared to the no-aid counterfactual.

- (179) In its analysis, the Commission will consider the following elements:

- a) **amount of aid:** the higher the amount of aid, the more likely it is that part of the aid can be used to distort competition. This is in particular the case if the aid amount is high compared to the size of the general activity of the beneficiary;
- b) **frequency of aid:** if an undertaking receives aid repeatedly, it is more likely that this will distort dynamic incentives;
- c) **duration of the aid:** if operating aid is granted for a long period, this is more likely to distort competition;
- d) **gradual decrease of aid:** if operating aid is reduced over time, the undertaking will have an incentive to improve efficiency and the distortion of dynamic incentives will therefore be reduced over time;
- e) **readiness to meet future standards:** if the aid will enable the undertaking concerned to meet new Community standards expected to be adopted in the foreseeable future, the aided investment will reduce the costs of investments that the undertaking would have had to make in any event;
- f) **level of the regulatory standards in relation to the environmental objectives:** the lower the level of mandatory requirements the higher the risk that aid to go beyond mandatory requirements is not necessary and will crowd out investments or be used in a way that distorts dynamic incentives;

- g) **risk of cross-subsidisation:** where the undertaking produces a wide range of products or produces the same product using a conventional and an environmentally friendly process, the risk of cross-subsidisation is higher;

- h) **technological neutrality:** where a measure focuses on one technology only, the risk of distorting dynamic incentives is higher;

- i) **competing innovation:** where foreign competitors develop competing technologies (innovation competition), the more likely the aid will distort dynamic incentives.

5.2.2.2. Maintaining inefficient firms afloat

- (180) State aid for environmental protection may be justified as a transitional mechanism to move towards a full allocation of environmentally negative externalities. It should not be used to grant unnecessary support to undertakings which are unable to adapt to more environmentally friendly standards and technologies because of their low levels of efficiency. In its analysis, the Commission will consider the following elements:

- a) **type of beneficiaries:** where the beneficiary has a relatively low level of productivity and is in poor financial health, it is more likely that the aid will contribute to artificially maintaining the undertaking in the market;
- b) **overcapacity in the sector targeted by the aid:** in sectors where there is **overcapacity**, the risk is higher that investment aid will sustain the overcapacity and maintain inefficient market structures;
- c) **normal behaviour in the sector targeted by the aid:** if other undertakings in the sector have reached the same level of environmental protection without aid, it is more likely that the aid will serve to maintain inefficient market structures. Thus, the weaker the evidence that PPP is respected by the beneficiary and the greater the fraction of external environmental cost internalised by the beneficiary's competitors, the more significant the competition distortion;
- d) **relative importance of the aid:** the greater the reduction/compensation to variable production costs, the greater the **competition** distortion;

- e) **selection process:** if the selection process is conducted in a non-discriminatory, transparent and open manner it is less likely that the aid will contribute to artificially maintaining the undertaking in the market. The more extensive (in terms of relevant market coverage) and the more competitive (in terms of auctioning/procurement) the allocation of a subsidy, the lower the competition distortion;
- f) **selectivity:** if the measure under which the aid is granted covers a relatively high number of potential beneficiaries, if it covers all undertakings in the relevant market and if it does not exclude companies that could address the same environmental objective, it is less likely that the aid will maintain inefficient firms in the market.

5.2.2.3. Market power/exclusionary behaviour

(181) Aid for environmental protection given to a beneficiary may be used to strengthen or maintain its market power in the given product market. The Commission will assess the market power of the beneficiary concerned before the aid is granted, and the change in market power which can be expected as a result of the aid. Aid for environmental protection given to a beneficiary with substantial market power may be used by this beneficiary to strengthen or maintain its market power, by further differentiating its products or excluding rivals. The Commission is unlikely to identify competition concerns related to market power in markets where each aid beneficiary has a market share below 25 % and in markets whose Herfindahl-Hirschman Index of market concentration is below 2 000.

(182) In its analysis, the Commission will consider the following elements:

- a) **market power of aid beneficiary and market structure:** Where the recipient is already dominant on the affected market⁽⁶²⁾, the aid measure may reinforce this dominance by further weakening the competitive constraint that competitors can exert on the recipient undertaking;
- b) **new entry:** where the aid concerns product markets or technologies that compete with products where the aid recipient is an incumbent and has market power, the aid may be used strategically to prevent new entry. Thus, if the aid is not available to potential new entrants, the risk that the aid distorts competition is higher;

⁽⁶²⁾ A number of markets may be affected by the aid, because the impact of the aid may not be restricted to the market corresponding to the activity that is supported but may extend to other markets, which are connected to that market either because they are upstream, downstream or complementary, or because the beneficiary is already present on them or may be present in the near future.

- c) **product differentiation and price discrimination:** the aid may have the negative effect of facilitating product differentiation and price discrimination by the aid recipient, to the detriment of consumers;
- d) **buyer power:** where there are strong buyers in the market, it is less likely that an aid beneficiary with market power can increase prices vis-à-vis the strong buyers. Thus, the stronger the buyer power the less likely it is that the aid will harm consumers.

5.2.2.4. Effects on trade and location

(183) State aid for environmental protection may result in some territories benefiting from more favourable production conditions, notably because of comparatively lower production costs as a result of the aid or because of higher production standards achieved through the aid. This may result in companies re-locating to the aided territories, or to displacement of trade flows towards the aided area.

(184) Consequently, the aid will shift profits to the Member State in the product market concerned by the aid as well as in input markets.

(185) In its analysis, the Commission will consider whether there is evidence that the beneficiary had considered other locations for its investment, in which case it is more likely that the aid significantly distorts competition.

5.2.3. Balancing and decision

(186) In the light of these positive and negative elements, the Commission will balance the effects of the measure and determine whether the resulting distortions adversely affect trading conditions to an extent contrary to the common interest. Ideally, the positive effects and the negative effects should be expressed using the same referential (for example external cost avoided versus the loss of competitor's profits in monetary unit).

(187) In general, the higher the environmental benefit and the more clearly it is established that the aid amount is limited to the minimum necessary, the more likely a positive appraisal. On the other hand, the larger the indication that the aid will significantly distort competition, the less likely a positive appraisal. If the expected positive effects are extensive and the distortions are likely to be very significant, the appraisal will depend on the extent to which the positive effects are considered to outweigh the negative effects.

(188) The Commission may raise no objections to the notified aid measure without initiating the formal investigation procedure or, following the formal investigation procedure laid down in Article 6 of Regulation (EC) No 659/1999, may decide to close the procedure with a decision in accordance with Article 7 of that Regulation. Where it takes a conditional decision within the meaning of Article 7(4) of that Regulation, it may, for instance, consider attaching the following conditions, which must reduce the resulting distortions or effect on trade and be proportionate:

- a) **lower aid intensities** than the maximum intensities allowed in Chapter 3;
- b) **separation of accounts** in order to avoid cross-subsidisation from one market to another market, when the beneficiary is active in multiple markets;
- c) **additional requirements to be met to improve the environmental effect** of the measure;
- d) **no discrimination** against other potential beneficiaries (reduced selectivity).

6. CUMULATION

(189) The aid ceilings fixed under these Guidelines shall apply regardless of whether the support for the aided project is financed entirely from State resources or is partly financed by the Community.

(190) Aid authorised under these Guidelines may not be combined with other State aid within the meaning of Article 87(1) of the EC Treaty or with other forms of Community financing if such overlapping results in an aid intensity higher than that laid down in these Guidelines. However, where the expenditure eligible for aid for environmental protection is eligible in whole or in part for aid for other purposes, the common portion will be subject to the most favourable aid ceiling under the applicable rules.

(191) Aid for environmental protection must not be cumulated with *de minimis* aid in respect of the same eligible costs if such cumulation would result in an aid intensity exceeding that fixed in these Guidelines.

7. FINAL PROVISIONS

7.1. Annual reporting

(192) In accordance with the requirements of Regulation (EC) No 659/1999 and Commission Regulation (EC) No 794/2004 of 21 April 2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty ⁽⁶³⁾, Member States must submit annual reports to the Commission.

⁽⁶³⁾ OJ L 140, 30.4.2004, p. 1. Regulation as last amended by Regulation (EC) No 1935/2006 (OJ L 407, 30.12.2006, p. 1).

(193) Beyond the requirements stipulated in those provisions, annual reports for environmental aid measures must contain, for each approved scheme, the following information as regards large undertakings:

- the names of the beneficiaries,
- the aid amount per beneficiary,
- the aid intensity,
- a description of the objective of the measure and of what type of environmental protection it is intended to promote,
- the sectors of activity where the aided projects are undertaken,
- an explanation of how the incentive effect has been respected, notably using the indicators and criteria mentioned in Chapter 5.

(194) In the case of tax exemptions or reductions, the Member State need provide only the legislative and/or regulatory text(s) establishing the aid and details of the categories of undertakings benefiting from tax reductions or exemptions and the sectors of the economy most affected by those tax exemptions/reductions.

(195) The annual reports will be published on the internet site of the Commission.

7.2. Transparency

(196) The Commission considers that further measures are necessary to improve the transparency of State aid in the Community. In particular, it is necessary to ensure that the Member States, economic operators, interested parties and the Commission itself have easy access to the full text of all applicable environmental aid schemes.

(197) This can easily be achieved through the establishment of linked internet sites. For this reason, when examining environmental aid schemes, the Commission will systematically require the Member State concerned to publish the full text of all final aid schemes on the internet and to communicate the internet address of the publication to the Commission. The scheme must not be applied before the information is published on the internet.

7.3. Monitoring and evaluation

(198) Member States must ensure that detailed records regarding the granting of aid for all environmental measures are maintained. Such records, which must contain all information necessary to establish that the eligible costs and maximum allowable aid intensity have been observed, must be maintained for 10 years from the date on which the aid was granted and be provided to the Commission upon request.

(199) The Commission will ask Member States to provide this information in order to carry out an evaluation of these Guidelines four years after their publication ⁽⁶⁴⁾.

7.4. Appropriate measures

(200) The Commission herewith proposes to Member States, on the basis of Article 88(1) of the EC Treaty, the following appropriate measures concerning their respective existing environmental aid schemes:

Member States should amend, where necessary, such schemes in order to bring them into line with these Guidelines within 18 months after their publication, with the following exceptions:

- i) Member States should amend, where necessary, schemes concerning aid in the form of tax reduction or exemption covered by Directive 2003/96/EC before 31 December 2012;
 - ii) the new thresholds mentioned in point 160 for individual projects will apply as from the first day following the publication of these Guidelines in the *Official Journal of the European Union*;
 - iii) the duty to provide more detailed annual reports will apply to aid granted under existing aid schemes as of 1 January 2009.
- (201) The Member States are invited to give their explicit unconditional agreement to these proposed appropriate measures within two months from the date of publication of these Guidelines in the *Official Journal of the European Union*. In the absence of any reply, the Commission will assume that the Member State in question does not agree with the proposed measures.

7.5. Application, validity and revision

- (202) These Guidelines will be applied from the first day following their publication in the *Official Journal of the European Union* and will replace the Community Guidelines on State aid for environmental protection of 3 February 2001 ⁽⁶⁵⁾.
- (203) These Guidelines will be applicable until 31 December 2014. After consulting the Member States, the Commission may amend them before that date on the basis of important competition policy or environmental policy considerations or in order to take account of other Community policies or international commitments. Such amendments might in particular be necessary in the light of future international agreements in the area of climate change and future European climate change legislation. Four years after the date of their publication, the Commission will undertake an evaluation of these Guidelines based on factual information and the results of wide consultations conducted by the Commission on the basis, notably, of data provided by the Member States. The results of the evaluation will be made available to the European Parliament, the Committee of the Regions and the European Economic and Social Committee and to the Member States.
- (204) The Commission will apply these Guidelines to all notified aid measures in respect of which it is called upon to take a decision after the Guidelines are published in the *Official Journal*, even where the projects were notified prior to their publication. This includes individual aid granted under approved aid schemes and notified to the Commission pursuant to an obligation to notify such aid individually.
- (205) In accordance with the Commission notice on the determination of the applicable rules for the assessment of unlawful State aid ⁽⁶⁶⁾, the Commission will apply, in the case of non-notified aid,
- a) these Guidelines, if the aid was granted after their publication;
 - b) the guidelines applicable when the aid was granted, in all other cases.

⁽⁶⁷⁾ In that process, Member States may want to assist the Commission by providing their own ex post assessment of schemes and individual measures.

⁽⁶⁸⁾ OJ C 37, 3.2.2001, p. 3.

⁽⁶⁹⁾ OJ C 119, 22.5.2002, p. 22.

ANNEX

TABLE ILLUSTRATING THE AID INTENSITIES FOR INVESTMENT AID AS A PART OF ELIGIBLE COSTS

	Small enterprise	Medium-sized enterprise	Large enterprise
Aid for undertakings going beyond Community standards or increasing the level of environmental protection in the absence of Community standards	70 % 80 % if eco-innovation 100 % if bidding process	60 % 70 % if eco-innovation 100 % if bidding process	50 % 60 % if eco-innovation 100 % if bidding process
Aid for environmental studies	70 %	60 %	50 %
Aid for early adaptation to future Community standards			
— more than 3 years	25 %	20 %	15 %
— between 1 and 3 years	20 %	15 %	10 %
before the entry into force			
Aid for waste management	70 %	60 %	50 %
Aid for renewable energies	80 % 100 % if bidding process	70 % 100 % if bidding process	60 % 100 % if bidding process
Aid for energy saving Aid for cogeneration installations	80 % 100 % if bidding process	70 % 100 % if bidding process	60 % 100 % if bidding process
Aid for district heating using conventional energy	70 % 100 % if bidding process	60 % 100 % if bidding process	50 % 100 % if bidding process
Aid the remediation of contaminated sites	100 %	100 %	100 %
Aid for relocation of undertakings	70 %	60 %	50 %