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Environmental and Energy Aid Guidelines 2014 - 2020

CONSULTATION PAPER

This document does not represent an official position of the European Commission. It is a tool to explore the views of interested parties. The suggestions contained in this document do not prejudice the form or content of any future proposal by the European Commission.

Executive Summary

As part of the modernisation of the EU State aid policy ("SAM"), DG Competition (DG COMP) considers that the Environmental Aid Guidelines ("EAG") should be reviewed to update them in light of the experience with their application, recent developments in energy markets and in the economy as well as align them with the common approach to modernising aid frameworks under SAM. Member States and stakeholders should thereby have a clear set of rules as of 2014 as a reference point for the development of their policies and aid interventions. This will, in particular, be important for the expenditure of EU cohesion policy in the period 2014-2020 of which a significant part may fall under the EAG as the Commission's proposal required that 20% of the ERDF funding in more developed and 6% in less developed regions has to be spent on the shift towards a low carbon economy, mainly on energy efficiency and renewable energy.

With the Commission's substantial experience in the application of the current EAG, the EAG and the relevant provisions of the General Block Exemption Regulation ("GBER") can be better targeted and simplified. Moreover, significant changes in the economic and technological landscape have taken place and should be reflected. For instance, a new phase of the Emission Trading Scheme ("ETS") has come into force in 2013 and a new Energy Efficiency Directive has recently been adopted.

Climate and energy policy have become increasingly intertwined. DG COMP intends to review the scope of the Guidelines and considers to better encompass energy issues which have so far only partially been covered, thereby transforming the Guidelines into Environmental and Energy Aid Guidelines ("EEAG"). The share of renewable energy in the overall energy mix has increased significantly and will increase substantially according to the 2030 and 2050 projections. As **many RES are becoming increasingly competitive**, it seems timely to reflect on their competitive impact and their role in the wider energy market and energy mix. Increased supply of intermittent RES generation also introduces challenges for **network stability** both in terms of short-term balancing and longer-term **generation adequacy**. Furthermore, State aid policy should consider how to support the Commission's general objective of promoting **resource efficiency** including the objective of **energy efficiency** and the commitment to **phase out subsidies to fossil fuels**.

Finally, it may be necessary to consider how the increasing costs of rendering the energy system more sustainable and more secure are shared across the different market players in view of their impact on **the competitiveness of certain undertakings** while taking into account the interaction of the various policy instruments.

The purpose of this paper is to outline and consult on the main considerations for reviewing the EAG and the relevant parts of the GBER. On substance, the main changes that are being contemplated are:

(i) Harmonise and simplify rules in particular in the GBER

Where projects have a clearly defined environmental benefit including resource efficiency, simplification of the rules should be achieved by establishing ex-ante compatibility rules to the extent possible. In particular, it is considered to simplify the eligible cost approach and to limit the more refined analysis as regards the proportionality of aid based on counterfactual scenarios to measures of greatest

importance. Moreover, it is envisaged to enlarge the scope of measures which could fall under the GBER and thereby facilitate the granting of well-defined aid measures without prior notification to the Commission.

(ii) Inclusion of energy infrastructure

Infrastructure, and in particular electricity infrastructure is an essential element to integrate RES into the EU internal market and in principle has a low risk for distortion of competition. Extension of the scope of the EAG to include energy infrastructure i.e. mainly electricity networks and their components is therefore considered. The idea is to facilitate investment in particular into Smart Grids to promote energy efficiency and cross-border interconnection as it helps to strengthen the internal energy market.

(iii) Issues of system stability and generation adequacy

The objective of system stability is a legitimate concern of Member States. However, DG COMP is considering how best to ensure that state aid is restricted to situations where markets are not able to deliver the necessary generation capacity. Once a market failure is established, it needs to be demonstrated that State aid is an appropriate means to ensure system stability provided that alternative measures such as better interconnection, demand response or energy savings could not alleviate such concerns. If State aid is an appropriate instrument, it needs to be considered what compatibility conditions are necessary to prevent harm to the internal energy market by nationally focused measures.

(iv) Support to low-carbon energy sources

National support has been successful in increasing the share of RES. However, support has in a number of Member States come at a high cost and has also inhibited integration and further development of the internal energy market. Moreover, a reflection is needed on how to ensure a level playing field across the different energy sources through the consistent application of the state aid principles.

DG COMP considers that the general principle of technology neutrality is a good starting point for the development of the EAG. This would, in principle, leave it to the market to select the most efficient technologies provided that external costs are internalised. Eventually such technologies should prevail. At the same time, the EEAG should allow Member States to design mechanisms that bring forward the development of less mature technologies which are beyond the research and development stage but still not commercially viable.

Furthermore, promoting the use of market-based support instruments such as investment grants relating only to the initial investment costs, feed-in premiums, certificate systems and open allocation procedures such as auctions can be considered. These instruments could be designed to accommodate the need to support both a wide range of technologies or specific technologies for example for reasons of supply diversification or for achieving climate targets by defining respective criteria in the auction process. To increase cost-efficiency and exploit synergies in the internal market support schemes should also include a cross-border dimension to the extent possible.

(v) Exemptions from environmental taxes and other charges on electricity consumption

Ambitious environmental taxes can lead to high financial burdens on undertakings, potentially reducing their international competitiveness. Aid in the form of tax exemptions is meant to maintain the competitiveness of particularly exposed undertakings and is exceptionally allowed where the tax itself has an overall beneficial environmental effect. It is considered to maintain, but simplify the rules for such aid. Other environmental costs of electricity may have similar effects. It needs to be explored whether under certain conditions aid may be warranted in particular also to alleviate costs stemming from the financing of RES systems while ensuring consistency with other policy instruments concerning for example exemptions from ETS costs.

Some exemptions from environmental taxes aim to reflect a different degree of environmental harmfulness rather than exempting beneficiaries from a cost burden (competitiveness aid). Such measures have the potential to allow ambitious environmental policy in Member States, going beyond general EU standards. If the tax system fully reflects the environmental logic of the tax, such measures may not be state aid. Where this is not the case, but such measures follow the overall environmental purpose, there are arguments to set different compatibility rules.

This consultation paper is part of the review process of the EAG. A first publication has already taken place in the autumn of 2012. The experience gained on the basis of this consultation paper and in the workshop will serve as input for the review process. On the basis of all the information gathered in the process, DG COMP intends to circulate for comment and consultation a set of draft guidelines during the summer 2013. Adoption of the new guidelines is scheduled for early 2014.

Comments or views on this consultation paper may be sent until 30 April 2013.

Please mention as Subject "HT 359 - Consultation on Community Guidelines on State Aid for Environmental Protection"

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Environmental and Energy Aid Guidelines

ISSUES PAPER

1. Introduction

1.1 Rationale and main objectives of the revision

- (1) On 8 May 2012, the Commission adopted a Communication on the EU State aid modernisation ("SAM").¹ The envisaged revision of State aid control is needed to strengthen the quality of the Commission's scrutiny and to shape that instrument into a tool promoting a sound use of public resources for growth-oriented policies and limiting competition distortions. In addition, there is a need to better explain State aid concepts and to consolidate substantive rules.
- (2) In this context, the Commission intends to revise the existing Environmental Aid Guidelines ("EAG")². The review process follows the general objectives of SAM and the EU2020 strategy by adapting the rules to the changed technological and economic landscape. In this context, it takes into account the flagship initiative on Resource Efficiency as well as the Roadmap to a Resource Efficient Europe that followed from it.
- (3) Over the past years Member States have continued to direct State aid funding to horizontal objectives, including environmental protection. The EAG provide guidance on the assessment of state aid measures for environmental and climate change measures, including resource efficiency. Also the European Structural and Investment Funds are increasingly geared towards energy, climate and environmental objectives.
- (4) However, since the adoption of the EAG, the regulatory framework and the market have developed. For instance, a new phase of the ETS has come into force beginning of 2013 and a new Energy Efficiency Directive was adopted. Renewable energy technologies have become more mainstream at lower production costs and become increasingly integrated into the energy market. The increased share of intermittent renewable energy in the overall energy mix introduced challenges for the energy market to ensure both short term and long term stability of the network.
- (5) Consequently, the link between environmental and energy policy has intensified. Therefore, the review process of the EAG is not limited to the current scope of the Guidelines, but includes a reflection to enlarge their scope to Environmental and Energy Aid Guidelines ("EEAG") in order to encompass energy issues which have so far only partially been covered by the Guidelines and are now dealt with by State Aid Decisions directly under the Treaty.

¹ COM/2012/0209 final

² The Commission has sought the views of stakeholders on the review of the EAG in a public consultation which closed on 23 October 2012.

http://ec.europa.eu/competition/consultations/2012_state_aid_environment/index_en.html#replies

- (6) The widening of the scope of the Guidelines to include the areas most concerned, network stability and energy infrastructure, could support the development of a competitive, secure and low-carbon EU energy market. However, this would imply significant changes as compared to the existing EAG. DG Competition therefore wishes to explore the views of interested parties in particular on these issues.

1.2 Existing legal framework for State aid for environmental protection

- (7) The current architecture foresees that aid for environmental purposes can be granted both on the basis of the Guidelines and the General Block Exemption Regulation ("GBER"). State aid measures which do not fall under the Guidelines or corresponding GBER provisions are assessed directly under the Treaty (TFEU) provisions.
- (8) In 2011³ the total environmental aid amounted to 0.09% of EU GDP (EUR 12.4 billion⁴). The largest grantors of State aid for environmental purposes were Germany (EUR 3.6 billion), Sweden (EUR 2.4 billion), the United Kingdom (EUR 1.4 billion), the Netherlands (EUR 0.9 billion), Austria (EUR 0.9 billion) and Spain (EUR 0.8 billion). This total environmental aid can be divided into two categories.
- (9) The first category covers a wide range of objectives such as measures for renewable energy, energy savings, waste management and improvement of production processes. For these types of measures, aid granted by Member States pursues a direct benefit to the environment. This represented 32.3% of environmental aid in 2011, equivalent to around € 4.0 billion. The largest contributors to this amount were: the Netherlands (EUR 1.0 billion), Spain (EUR 0.8 billion), Sweden (EUR 0.5 billion) and Austria (EUR 0.4 billion).
- (10) The second category covers reductions in or exemptions from environmental taxes. Expenditure under this category of aid scheme indicates the amount of tax revenue foregone. In 2011, 20.4% of environmental aid, equal to around EUR 2.5 billion, fell into this category. Within this total Sweden granted most (around EUR 1.4 billion), followed by Germany (EUR 580 million) and Finland (EUR 382 million).
- (11) The latter amounts have to be considered with some caution as such aid has to have at least an indirect positive effect on the environment as it would allow to set generally higher tax rates. A Member States which indeed sets higher tax rates at least partially does this to increase the indirect positive environmental effect. At the same time the aid amount increases as well. A Member State which has generally low tax rates will account for only low aid amounts.
- (12) Of the total amount of environmental aid granted in 2011, around EUR 4.6 billion, or 37% of the total, was granted under the GBER. In 2011 GBER expenditure increased significantly compared to 2010 when it represented 4.8% of total environmental aid. Slightly more than 80% of the block-exempted aid in that field was granted by Germany, Luxembourg and Portugal.

³ State aid scoreboard: http://ec.europa.eu/competition/state_aid/studies_reports/2012_autumn_en.pdf.

⁴ Actual support for RES is much higher, if also support is taken into account that currently is considered non aid.

The Environmental Aid Guidelines

- (13) The Guidelines apply to measures supporting environmental protection such as measures supporting investments which exceed EU environmental standards, supporting more efficient energy production and supporting energy production from renewable energy sources ("RES").
- (14) The Guidelines allow for two basic types of aid: investment aid and operating aid. In the case of *investment* aid, first the so called eligible costs are determined generally by calculating the investment costs and the operating costs and benefits for 5 years both for the supported investment and the grey investment. Subsequently the eligible costs are calculated as the difference between the environmentally friendly ('green') and the conventional ('grey') investment. Depending on the size of the company, a certain percentage (generally 60% to 80%) of these extra costs can be aided.
- (15) In the case of *operating* aid, first the production costs of the supported investment (e.g. of RES) are determined on the basis of the depreciation period of the plant. These production costs are then compared to a reference market price for that product (e.g. the electricity price). The difference between the production costs and the reference price can be fully aided. In practice, such operating aid is mainly granted to support RES or combined heat-and power ("CHP") plants.
- (16) In addition, to allow for more ambitious environmental taxes generally, the Guidelines offer the possibility of reductions from environmental taxes for a specific group of beneficiaries. Such exemptions are generally⁵ allowed in cases where the full tax rate leads to cost increases that cannot be passed on to consumers. In addition to this necessity test, the beneficiaries need to contribute in some form to environmental protection (by paying minimum amounts or entering into environmental agreements).
- (17) For aid measures below a given threshold (expressed in terms of aid amount, production level or capacity level), a so-called standard assessment is carried out where aid is deemed compatible if certain conditions are fulfilled. For cases above those thresholds, a detailed assessment of all compatibility conditions is carried out on a project specific basis taking into account the life-time of the project. In a balancing test it is ensured that the positive effects of the aid outweigh the potential distortions of competition of trade

General Block Exemption Regulation

- (18) The GBER allows for investment aid for many of the categories of environmental aid included in the Guidelines, but their application differs in several respects. While the eligible cost calculation is still based on the extra environmental costs, it is simplified. It generally does not take into account operating costs and benefits. Accordingly, the maximum aid intensity is lower than in the Guidelines, i.e. the percentage of the eligible costs that can be compensated with State aid is lower.
- (19) For the specific category of reductions from environmental taxes, GBER can only be used for energy tax reductions as long as the minimum rates of the Energy Tax Directive are respected.

⁵ Energy tax reductions up to the harmonised level set by the ETD benefit from simplified conditions.

Treaty provisions

- (20) In recent years, a number of State aid measures have been assessed directly under the relevant Treaty provisions as they were not or only partially covered by the Guidelines or the GBER. On this basis, the Commission approved environmental and mainly energy measures such as the support of Carbon Capture and Storage (CCS)⁶ and of the construction of infrastructure⁷. The case-by-case approach to these measures, while allowing for certain flexibility, has the drawback of making it more difficult to promote a clear policy orientation and gives less predictability to Member States.

1.3 Key considerations for the review of the EAG

- (21) Four important considerations resulting from the developments in EU energy and environment-related markets appear to require attention in the revision of the Guidelines.
- (22) First, at this stage climate change and energy measures are often produced nationally in a technology specific manner. This risks distorting the internal market. It is proposed that the review process explores **technology neutrality** to achieve decarbonisation targets in line with existing energy and climate change objectives for 2020. This approach would not exclude that different provisions for specific technologies may be necessary. However, where framework conditions have changed for all low-carbon energy sources, this could be reflected in the State aid rules by including all low carbon energy sources. Also, increased competition between low-carbon sources in particular RES could help to achieve EU objectives more cheaply.
- (23) Second, due to the increasing importance of environmental and climate objectives, the link between environmental and energy policy has over the past years intensified for example as regards the integration of **more renewable energy**. The increased deployment of RES is a main driver behind larger, more volatile electricity flows across the EU. Partially stemming from this, several Member States are concerned about the stability of the energy network and the generation adequacy to cover both base load and peak demand. Over the next decade, an estimated investment of EUR 104 billion is needed for energy infrastructure for both replacing ageing infrastructure and adapting it to the challenges of the energy system.⁸ It is therefore considered to include rules for State aid supporting energy infrastructure. The review will explore measures for generation adequacy and system stability measures.
- (24) Third, it may be necessary to consider how the increasing costs of rendering the energy system more sustainable and more secure are shared across the different market players. This raises the **issue of competitiveness** in particular for economic operators who are particularly exposed to international competition and are subject to high energy costs. On the one hand, a more sustainable and secure energy system is in the interest of the society as a whole and should therefore be

⁶ The Commission adopted 3 CCS related decisions, respectively FEED studies for CCS (N74/2009), a demonstration project to optimise capture technology (no CO₂ stored) (N190/2009) and a full scale CCS project (N381/2010).

⁷ State aid case: Electricity cable between mainland Finland and Åland (SA.33823).

⁸ European Network of Transmission System Operators for Electricity, Ten-Year Network Development Plan 2012, <https://www.entsoe.eu/system-development/tyndp/tyndp-2012/>

financed on a very broad base. On the other hand, it may be argued that internationally exposed market players might, at least to some extent, be shielded from increasing energy costs if their competitiveness is seriously at risk. However, any such measures would have to be designed so as to avoid increasing disparities within the EU as well as subsidy races across Member States. Moreover, the existing policy framework should be taken into account including for example measures to address competitiveness of energy and carbon intensive industries within the ETS.

- (25) Fourth, in view of depleting resources and a long-term trend of rising prices for raw materials, the Commission has adopted a general policy of promoting **resource efficiency**⁹ including the objective of improving **energy efficiency** and a policy of **phasing out subsidies to fossil fuels**. The revision of the EEAG will need to include a reflection on how to incentivise the industry to make better use of scarce resources to the benefit of the EU economy as a whole. At the same time, many measures to improve resource and energy efficiency may pay off for the investor carrying out such measures so that it needs to be considered carefully where market failures nonetheless prevent such investments and hence, State aid is necessary to trigger them.

2. Main issues of the revision of the Guidelines

2.1 Harmonise and simplify rules, in particular encourage the use of GBER

- (26) The public consultation indicates that overall, the scope of the existing environmental measures under GBER seems appropriate. The review will consider whether adaptations of the rules should be made to better target aid in particular in view of the challenges for increased energy efficiency, resource efficiency and climate adaptation.
- (27) A key challenge in the review of the Guidelines is simplification of the rules. The public consultation showed that the EAG and the environmental provisions of the GBER have sometimes been perceived to be complex for example due to the extra costs calculation with a counterfactual analysis.
- (28) The objective is to substantially extend the scope of measures which fall under GBER while preserving the general polluter pays principle for environmental measures. In more detail, simplification could be considered by extending the scope of GBER both through adding new aid measures (remediation of contaminated sites, district heating) and through extending the possibilities for granting aid for measures already covered by GBER. Simplified aid calculations could be explored by using easier cost approaches (e.g. a total cost approach).
- (29) In addition, it is envisaged to define in the Guidelines *ex ante* rules for several types of measures which have so far been subject to a case-by-case assessment under the relevant Treaty provisions. This concerns in particular the following issues.

⁹ See in particular the Roadmap to a Resource Efficient Europe in the context of the EU2020 strategy.

2.2 Energy Infrastructure

- (30) As a major novelty of the Guidelines, it is considered to add and define compatibility conditions for aid for energy infrastructure. Such an extension of the scope of the Guidelines is believed to be very beneficial for the achievement of the EU's energy and climate targets and would give more legal certainty to beneficiaries.
- (31) The assessment of state aid for energy infrastructure (transmission or distribution networks, interconnectors) has so far been carried out on a case by case basis¹⁰ which has been based on similar criteria. The compatibility criteria established in the case practice can be introduced in the Guidelines as a new investment aid measure for energy infrastructure given that the overall impact of infrastructure on competition tends to be positive, as it often allows for an increase in competition downstream (i.e. market for energy supply) and cross-border. Certain infrastructures also help to accommodate intermittent energy sources.
- (32) Based on the case experience with state aid for interconnectors and distribution networks, compatibility conditions for this type of aid could include criteria such as: aid intensity, Internal Rate of Return ("IRR")¹¹ (maximum) and an obligation to grant third party access ("TPA").
- (33) At the same time it is necessary to examine to what extent market forces by themselves or in combination with appropriate regulatory intervention can be expected to deliver an efficient level of electricity infrastructure. European electricity networks are a regulated asset for which regulatory authorities approve tariffs or tariff methodologies. One would therefore expect that, in principle, investment needs can be accommodated via the market itself or via market mechanisms coupled with regulation.
- (34) However, some network operators might have insufficient incentives to invest in new infrastructure because they would have to fully bear the costs whilst a (large) part of the benefits accrue to other actors. This could in particular arise as regards **cross-border interconnection**. As a result, transmission system operators may not invest in new interconnection even if it were beneficial from an overall economic perspective. If this cannot be solved by regulatory or other measures, there may be a case for State aid to support investments in new infrastructure, in particular cross-border interconnections where such discrepancy is more likely and investments with cross-border impact are more likely to pass the balancing test.
- (35) The same could also be true for infrastructure in a Member State with a clear cross-border impact that for example helps to increase the use of interconnection by resolving internal congestion. In this respect, the assessment would need to be linked to the Commission's general approach to infrastructure in the energy legislation.¹² In contrast, for **nationally focused infrastructure without a clear cross-border benefit**, a stricter test may be necessary. For instance, similar

¹⁰ N542/2010– Poland- Construction of interconnection and cross-border power line between Poland and Lithuania, N56/2009 PL- Aid for modernisation and replacement of electricity distribution networks,.

¹¹ In certain cases, ex post checks may also be called for, but these should not go at the expense of the firm's incentive to perform well.

¹² In November 2012, the Council and the European Parliament found a political compromise on the regulation on guidelines for trans-European energy infrastructure.

projects may have been carried out in the market and financed by distribution tariffs. This is likely to indicate that there is no market failure

- (36) Based on the case experience with state aid for interconnectors and distribution networks, compatibility conditions for this type of aid could include criteria such as: aid intensity, Internal Rate of Return ("IRR")¹³ (maximum) and an obligation to grant third party access ("TPA").
- (37) In addition to investments into traditional infrastructure, new developments in energy infrastructure are taking place which can be highly beneficial to the internal energy market as well as for a better integration of large shares of RES into the energy grids:
 - a. "Smart grids", in particular metering, management and exchanges, including ICT solutions applied to electricity networks¹⁴;
 - b. Storage and fuel cells, including decentralised storage solutions;
 - c. "Super grids," i.e. high-capacity and rapid-transmission "energy highways".
- (38) Smart grids including smart meters, for instance, could be fostered by directly incentivising consumers to use these devices in order to control and adapt their consumption and thereby to strengthen the demand response and management.
- (39) Other demand-side measures relating for example to electric cars could be envisaged. Before turning to State aid as an appropriate means to achieve an objective, due account should be given to other measures.

2.3 Issues of system stability and generation adequacy

- (40) The internal market should in principle allow the development of deep and liquid electricity markets, both long term and short term that can drive the investments for a low-carbon electricity system.
- (41) The increased supply of intermittent RES has however caused concern in some Member States about the stability of the network. As a solution some Member States consider that capacity mechanisms are one way to avoid temporary power shortages or black-outs. Alternative possibly less distortive measures are investments in infrastructure (e.g. interconnection) and demand side measures.
- (42) Consideration should be given whether such alternative measures exist which can alleviate legitimate concerns but affect the internal market to a lesser degree. Basis for such considerations should be a cross-border assessment of generation adequacy. One example of a demand-side measure is interruptible electricity contracts. Such contracts allow the supplier to cut the electric service to a customer in exchange for either an overall reduction in the price of electricity delivered or for financial compensation at the time of interruption. The State aid assessment should take such alternative measures into account.
- (43) These issues were already addressed in November 2012 in the Communication "Making the internal energy market work"¹⁵ and in DG Energy's consultation

¹³ In certain cases, ex post checks may also be called for, but these should not go at the expense of the firm's incentive to perform well.

¹⁴ If support is granted non selectively, support would not involve state aid.

paper on "Generation adequacy, capacity mechanisms and the internal market in electricity".

- (44) Capacity mechanisms can have different designs but their basic aim is to secure generation adequacy and system stability by creating reserve capacity for which the selected electricity generators are remunerated. In principle, such mechanisms refer to short-term electricity supply needs to address temporary shortfalls or imbalances. However, they may also concern long-term generation adequacy.
- (45) The objective of system stability is a legitimate concern. On the other hand, markets should in principle be able to deliver the necessary generation capacity. It is therefore essential to establish that the market would indeed not deliver the needed investments.
- (46) If capacity mechanisms are found to be necessary, several elements can mitigate the potentially harmful effects, in particular, the tendering of the capacity in an open, transparent and technology neutral manner. Moreover, cross-border mechanisms are usually more beneficial to the internal market than nationally oriented measures.
- (47) System stability and generation adequacy may also justify deviations from the principle of technology neutrality e.g. if Member States show an excessive import dependency or if the outcome contradicts other policy objectives such as sustainability. Sector legislation also sets a frame for State aid control: The Electricity Directive¹⁶ for example allows Member States to provide priority dispatch for generating installations using indigenous sources for 15% of the overall primary energy needed.

2.4 Support to low-carbon energy sources

2.4.1 Issues of technology neutrality and market failures

- (48) Increasingly, Member States appear to adopt an approach to a low-carbon economy going beyond the achievement of the RES targets set out in the RES Directive. This more general shift to a low-carbon approach is also followed in the Energy Roadmap 2050.¹⁷ There is also the case of Member States considering the support of nuclear energy both for reasons of decarbonisation and security of supply.
- (49) There are good reasons for the general principle of fostering technology neutral solutions to achieve objectives of common European interest and to leave it to the market to select the most efficient technologies provided that the external costs are internalised. In a process of undistorted competition, the most efficient technology should eventually prevail and the costs of energy production should be relatively low. Technology neutrality may therefore be considered a key element of the compatibility assessment of aid measures in this area. On the other hand, the allocation of funding needs to be done in such a way that cheaper technologies do not realise windfall profits (overcompensation) if the price is set by more expensive technologies.

¹⁵ COM(2012)663

¹⁶ Directive 2009/72/EC of 13 July 2009.

¹⁷ Directive 2009/72/EC of 13 July 2009.

- (50) The presumption that all technologies should be treated equally regardless of their maturity and prospects in terms of product and process innovation might result in a situation where only cheap mature RES technologies are supported, at the expense of potentially more promising longer term solutions. The development of less mature technologies which are beyond the stage of research and development but still not commercially viable (e.g. 'first-of-a-kind' installations) would not take off. In this context, there is need to examine the effects of a pure technology neutral approach only.
- (51) So far, the Guidelines have established rules allowing aid for specific RES technologies in order to help Member States to support the RES as such technologies were subject to market failures. The wish of some Member States to widen support also to other low-carbon energy sources including nuclear merits an in-depth discussion in order to analyse whether market failures justify intervention and whether it is possible to establish ex-ante rules in the framework of Guidelines while ensuring cost transparency and the internalisation of external costs.
- (52) The primary market failure identified by the Guidelines for the support to RES, which currently is the only low-carbon energy source for which Guidelines are established, is the presence of positive externalities, in particular reduced emissions of CO₂ and other greenhouse gases ("GHG"). It is however important to note that what matters is not the externalities in power generation *per se*, but rather whether there are any *remaining* externalities in a context where other instruments (legislative measures, taxation, industry standards and specific ownership rights)¹⁸ are already meant to address the problem to a large extent. Indeed, the ETS system has been set up as a technology neutral, market based system and should in principle continue to be the key tool driving large-scale deployment of low-carbon technologies in the internal market.
- (53) In any event, there might be other potential market failures hindering the roll-out of RES such as coordination problems. Moreover, RES support relies in principle on the RES Directive defining compulsory national RES targets which make a strong case to consider RES support generally as a Common Objective.
- (54) To ensure a level playing field and promote the objective of decarbonisation, the Commission aims at phasing out environmentally harmful subsidies ("EHS"). In the energy area, this concerns mainly subsidies to fossil fuels which counteract the objective of promoting RES production and, in fact, require indirectly even higher subsidies to RES to make them competitive. The debate on EHS is progressing, but requires a balancing of different effects of subsidies and different EU policy objectives. Work is undertaken in order to come to operational conclusions. Once such conclusions are available, they can serve as an element in the review of the guidelines.

2.4.2 Support to renewable energy sources (RES)

- (55) The field of RES is particularly important since many Member States have introduced various aid measures to achieve their national RES targets. Recently, some Member States have cut the tariffs for RES producers and/or proposed lower tariffs for the future. This can be an indication that RES support schemes have

¹⁸ Example: emission rights in ETS.

been adapted to lower costs but also that budgets are increasingly constrained and pressure on consumer prices is growing.

- (56) The Commission's recent RES Communication¹⁹ noted that some of the recent changes in support schemes were triggered by rapidly increasing overall expenditure on RES which is not sustainable in the short term. Sudden changes in the support schemes can disrupt the incentives for investing in RES by jeopardising investor confidence. These issues have been raised in the Communication "Renewable Energy: a major player in the European energy market"²⁰ and will be addressed in the planned guidance paper on support schemes for renewables.²¹
- (57) Experience gained so far emphasizes the need for State aid to ensure that costs are limited to the minimum and to support schemes that are efficient and effective to promote overall economic efficiency of the related expenditure. The existing Guidelines have left a large discretion to Member States how to design their support schemes. This has led to a wide variety of support schemes based on different pre-determined prices for the electricity produced, on negotiated prices between generators and suppliers, on a certificate system and recently on a tendering within certain limits. As a result of these support schemes, electricity produced from RES has increased over the last years in particular to meet the national RES targets. More emphasis on the impact on the EU internal market may be warranted.
- (58) State aid to RES will likely remain an important element in the EEAG. However, RES are becoming more competitive as technology costs have decreased and ETS has put a price on CO₂, albeit currently too low to incentivise investments in RES. Accordingly, it can no longer automatically be assumed that all RES will necessarily be uncompetitive over the next years.
- (59) In order to create cost-efficient support schemes it could be explored whether the most mature RES should – possibly progressively - compete for State aid (thereby favouring the most efficient production). Such technologies are likely to include, for example, in many instances onshore wind energy, photovoltaic, biomass and small hydro power. [In fact, it may be expected that the most mature RES may a few years be commercially viable without State aid.](#)
- (60) Tender and auction mechanisms can be designed so as to help identify both the current and the expected maturity of a range of technologies over a certain time horizon and can help to reduce the need for financial support. For instance, State support might be made available on the basis of a tender whereby a given budget is allocated to the most promising projects.
- (61) Less mature RES technologies (e.g. 2nd generation biofuels, ocean energy, offshore wind) are unlikely to obtain aid in a purely technology neutral competition and may therefore require technology specific support. Use could be made of measures which make the costs underlying different technologies explicitly comparable, such as the Levelised Cost of Electricity.

¹⁹ Commission Communication on Renewable Energy: a major player in the European energy market, cf. COM/2012/271 of 6 June 2012.

²⁰ COM/2012/271.

²¹ See point 20 in Annex I of COM(2012)663.

- (62) Further, the use of more market-based instrument such as investment grants, feed-in premiums (especially when they are digressive over time) or certificates schemes could increase the efficiency of the RES support schemes (both in terms of limiting public expenditure and in terms of preserving market price signals) and should therefore be considered. The conditions for RES support could also focus more on the grid integration of RES and on cross-border impacts which may be mitigated by exposing RES producers to market risks and system costs.
- (63) National RES targets and other elements have led to support systems promoting almost exclusively national production. From an environmental point of view, this focus is not automatically justified and from an economic point of view, this risks creating important inefficiencies in the production and distribution of RES. Support schemes could therefore become more open to suppliers from other Member States and, in the longer term, Member States should promote common mechanisms to support cross-border support systems to encourage the deployment of RES production where it is most efficient
- (64) Support for biofuels is currently allowed only for sustainable biofuels, the definition of which follows the one established by the RES directive. This parallelism has ensured consistency between related EU rules. However, first and second generation biofuels are at different stages of competitiveness. Moreover, the Commission has proposed to no longer allow support for first generation biofuels after 2020 due to their impact on indirect land use exchange.

2.5 Exemptions from environmental taxes or other charges on electricity consumption

- (65) Environmental taxes are often used to target activities which directly or indirectly create pollution or produce waste. A guiding principle throughout the Guidelines is the "polluter pays" principle. Environmental taxes are a way of implementing the polluter pays principle and therefore reductions from environmental taxes imply a deviation from this basic principle.
- (66) The current rules essentially allow for tax reductions as long as the beneficiaries pay at least the EU minimum tax rate as set out in the Energy Tax Directive. For tax reductions to a level below the EU minimum tax rate or for non-harmonised taxes, such reductions are only allowed if (i) the full tax rate would lead to a high cost increase and (ii) to an expected significant loss of sales for the beneficiary. This approach also in the light of case experience appears sound as a matter of principle as it strikes a balance between an indirect environmental benefit on the one side and aid that in its core is competitiveness aid on the other.
- (67) In line with the State Aid Modernisation, a simpler test can be explored to demonstrate that the tax reduction is needed. The test could be simplified for instance in respect to demonstrating the absence of the possibility to "pass on" costs. Moreover, aiming to preserve the price signal, the use of tax credits or digressive exemption rates could be considered as an alternative tool to fixed tax exemptions.
- (68) It should be recalled that competitiveness aid usually has a high potential to distort competition and does not contribute to growth in a sustainable way. Furthermore, such exemptions can bear the risk to discourage the efficient use of resources.

- (69) However, in addition to exemptions from the energy tax, several Member States are considering exemptions (for energy intensive users) from financing the RES support schemes. In principle, all energy consumers should bear the financial burden of supporting RES which ensure an equal treatment. However, a reflection is warranted whether such costs may justify aid to maintain competitiveness of undertakings. This has to be carefully examined in order not to incentivize subsidy races between Member States.
- (70) Moreover, the primary objective should be to make RES support as efficient as possible to avoid an excessive financial burden on any consumer and to introduce all measures that allow integration of RES into the energy market.
- (71) At the same time, some exemptions from environmental taxes aim to reflect a different degree of environmental harmfulness rather than exempting beneficiaries from a cost burden (competitiveness aid). For example, a differentiated charging of water use depending on the state in which the water is returned to the environment. Such measures have the potential to allow ambitious environmental policies in Member States, going beyond what is achievable under harmonisation. It could be explored to what extent such measures, if they constitute aid, could be subject to different compatibility rules.
- (72) Finally, aid in the form of tax exemptions but provided for a specific objective (e.g. support for RES or CHP in the form of exemption from energy taxation) should be assessed on the basis of the conditions set for such specific measures in order to ensure consistent rules for support to the same activities.