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STATE AID IN THE CONTEXT OF THE GREENHOUSE GAS EMISSION ALLOWANCE TRADING SCHEME PAST 2012

Abstract

State aid is a European Commission term which refers to forms of assistance from a public body given to entrepreneurs on a selective basis, with the potential to distort competition and affect trade between Member States of the European Union. The definition of state aid we can find in Article 107 of the Treaty on the Functioning of the European Union. The European Union Trading Scheme (ETS) was introduced to reduce CO₂ emissions and avoid climate change. The ETS foresees measures which involves state aid. That are: aid to compensate increases in electricity prices resulting from the inclusion of the costs of greenhouse gas emissions due to the EU ETS; investment aid to highly efficient power plants, including new energy power plants which are ready for the environmentally safe capture and geological storage of CO₂, optional transitional free allocation in the electricity sector in some Member States; and the exclusion of certain small installations from the EU ETS if the greenhouse gas emission reductions can be achieved outside the framework of the EU ETS at lower administrative cost.

The main aim of the article is to show how state aid can be granted in the context of ETS. Providing for state aid is very important for the competitiveness of Polish enterprises. Granting state aid can be an instrument for rescuing the competitiveness of enterprises.

Keywords: state aid, European Union Trading Scheme.

Introduction

State aid is a European Commission term which refers to forms of assistance from a public body given to entrepreneurs on a selective basis, with the potential to distort competition and affect trade between Member States of the European Union. We can find the definition of state aid in Article 107(1) of the Treaty on the Functioning of the European Union.¹ This Article states that, “save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market”.

A scheme for greenhouse gas emission allowance trading from 1 January 2013 will be functioning under Directive 2009/29/EC.² This Directive includes the following special and temporary measures for certain undertakings, which involve state aid within the meaning of Article 107(1) of the Treaty:

- aid to compensate increases in electricity prices resulting from the inclusion of the costs of greenhouse gas emissions due to the EU ETS (commonly referred to as “indirect emission costs”),
- investment aid to highly efficient power plants, including new energy power plants which are ready for the environmentally safe capture and geological storage of CO₂ (CCS-ready),
- optional transitional free allocation in the electricity sector in some Member States,
- exclusion of certain small installations from the EU ETS if the greenhouse gas emission reductions can be achieved outside the framework of the EU ETS at lower administrative cost.

In each of the above cases, the European Commission justified the need of state aid. It indicated the maximum aid intensities and the eligible cost.

The main objective of this paper is to analyze the admissibility of state aid in the context of the trading scheme for greenhouse gas emission. Measures including

¹ Consolidated version of the Treaty on the Functioning of the European Union, OJ C115/47.

² Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community, OJ L 140, 5.06.2009, p. 63.

state aid will be presented. The author present some reservations which Member States report due to the entry into force European Trading Scheme.

1. Types of state aid in the European Trading Scheme

As stated in the first part, there are four ETS measures which contain state aid. The purpose of the state aid is to finance public investments associated with the reduction of greenhouse gas emissions and compensate for the costs of adaptation to increased energy price associated with full auctioning of emissions allowances.

The aim of granting state aid is to compensate for the increases in electricity prices resulting from the inclusion of the costs of greenhouse gas emissions due to the EU ETS and to support sectors or subsectors which are deemed to be exposed to significant risk of carbon leakage due to the transformation of the costs associated with greenhouse gas emissions in energy prices. For the need for implementation of this aid instrument the concept of “risk of carbon leakage” was introduced which shall be construed as an increase in total greenhouse gas emissions if a company moves production outside the European Union because it will not be able to pass increased costs resulting from the ETS to their customers without significant loss of market share or significant loss of profits. The purpose of this aid instrument is, therefore, to achieve the environmental objective of avoiding an increase of total greenhouse gas emissions due to the relocation of production outside the European Union, where there are no regulations, international agreements on reducing greenhouse gas emissions. On the other hand, the introduction of this instrument can destroy the whole ETS because the granted support may discourage companies from reducing emissions, as well as from making investments in innovative solutions. The support may also contribute to the distorted competition within the internal market. Implementation of this instrument should be accompanied with investigation of the possibility to transfer the sector or subsector indirect emissions costs to product prices without significant loss of market share to companies outside the European Union, which are not affected by the limit for CO₂ emissions. State aid will not be fully compensated for the cost of emission allowances in the prices of electricity and will be subject to systematic reduction. Systematic reduction of intensity in the long term will encourage the full internalisation of external environmental costs. In the short term it will be the incentive to move to technologies that emit less CO₂.

In Annex II of the Guidelines³ 10 sectors were identified in which entrepreneurs are eligible to receive support. There are: aluminum production; mining of chemical and fertiliser minerals; manufacture of other inorganic chemicals; lead, zinc and tin production; manufacture of leather cloths; manufacture of basic iron and steel and of ferro-alloys; manufacture of paper and paperboard; manufacture of fertilisers and nitrogen compounds; and finally, copper production and manufacture of other organic basic chemicals. Maximum intensity of aid is defined as degressive and may not exceed 85% of eligible costs in the years 2013–2015, 80% of eligible costs in the years 2016–2018 and 75% from 2019 to 2020.

The maximum aid payable per one installation for manufacturing products in the eligible sectors depends on whether or not the indicators of production efficiency shall apply to the products manufactured by the recipient as indicated in Annex III to the Guidelines.

In the first case:

Maximum state aid = aid intensity at year t * CO₂ emission factor (tCO₂/MWh) (at year t)* EUA forward price at year $t - 1$ (EUR/tCO₂)* Product-specific electricity consumption efficiency benchmark (MWh/tonne) defined in Annex III* Baseline output.⁴

In the second case:

Maximum state aid = aid intensity at year t * CO₂ emission factor (tCO₂/MWh) (at year t)* EUA forward price at year $t - 1$ (EUR/tCO₂)* fall-back electricity consumption benchmark 0.7* baseline electricity consumption.⁵

The second type of aid is investment aid to highly efficient power plants, including new energy power plants which are ready for the environmentally safe capture and geological storage of CO₂. The European Commission indicated⁶ that revenues from the sale of CO₂ emission allowances at auction Member States in the years 2013–2016 can be used to support the construction of highly efficient power plants,

³ Communication from the Commission Guidelines on certain state aid measures in the context of the greenhouse gas emission allowance trading scheme post 2012, http://ec.europa.eu/competition/consultations/2012_emissions_trading/index_en.html (14.05.2012).

⁴ *Ibidem*, p. 8.

⁵ *Ibidem*.

⁶ Addendum to 'I/A' Note from General Secretariat of the Council to COREPER/COUNCIL 8033/09 ADD 1 REV 1 of 31 March 2009.

including new power plants which are ready to capture and store carbon dioxide. The purpose of this type of aid is the desire to increase the level of environmental protection, and support is targeted at existing market failures. If we want to provide this support, the state aid must be necessary, it must have an effect on incentives and it should be proportionate. The proportionality of the aid consists in the fact that the maximum aid intensity depends on the impact on the environment and on reducing the CO₂ emissions of new power plants in comparison with high-tech. Preferred will provide assistance on the basis of public tender in accordance with the rules of competition based on clear, transparent and non-discriminatory criteria which will ensure that the granted state aid will be reduced to the necessary minimum and will be beneficial to the electricity market. Incentive effect may be shown through a counterfactual scenario providing evidence that without the aid the beneficiary would not have undertaken the investment. Eligible costs include the total cost of investment in equipment and land for the new facilities which are necessary for the construction of new power plants. In the case of constructing a CCS-ready power plant, the costs of demonstrating the overall economic and technical feasibility of implementing a full CCS chain as well as investment costs in the power plant and land that will allow for cost efficient retrofit with CO₂ capture equipment will be eligible. Eligible costs do not include the cost of installing equipment to capture, transport and storage of greenhouse. Detailed information on eligible costs are shown in Table 1.

The third type of aid is optional transitional free allocation in the electricity sector in some Member States. Based on Article 10 c of the ETS Directive⁷ the Member States that meet certain conditions for the interconnection of national electricity grids or the share of fossil fuels in electricity production and the level of GDP per capita compared to the EU average have the option of a temporary derogation from the principle of full auction system and the free allocation to electricity generators who were operating before 31 December 2008 or who started the investment process before this date. In exchange for the granting of free allowances, the Member States must present a national investment plan for the investment made by the beneficiary of free allocation or other economic operators to modernize and improve the standard of infrastructure, clean technology and diversify their energy mix and sources of supply. Allocating free allowances are state aid. This follows from the fact that the state gives up the revenue from allocating free allowances. Allowances are granted

⁷ Directive 2009/29/EC..., p. 63.

Table 1. Eligible costs in CCS power plant

Type of Power plant	Condition	Maximum intensity of aid for eligible costs (%)
Highly efficient, ready to CCS	implementation of the full CCS chain starts before 2020	15
	aid is granted after a genuinely competitive bidding process which promotes: 1) the most environmentally-friendly power generation technologies in the new plant resulting in lower CO ₂ emissions compared to the state-of-the-art technology, 2) competition on the electricity generation market	10
Highly effective	irrespective of whether they are CCS-ready, for which implementation of the full CCS chain does not start before 2020	5

Source: own elaboration based on Communication from the Commission Guidelines..., p. 9–10.

selectively and can bring economic benefit to electricity generators, which can lead to disruption or threaten to distort competition and trade within the internal market. The result is that state aid is considered to comply with the common market if the following conditions are met:

- the transitional free allowance is granted pursuant to Article 10c of the ETS Directive⁸ and the Commission Communication on the optional application of Article 10c of the ETS Directive,⁹
- goal of the program must be to improve environmental protection,
- the plan must include investments in modernization and improvement of infrastructure, in clean technologies and diversifying the energy mix, and providing support must result in changing the behavior of the beneficiary,
- market value of free emission allowances may not exceed the total cost of investments made by the beneficiary free of emission allowances if the total investment costs are lower than the market value of emission allowances, the beneficiary shall provide free allowances for differences in the “mechanism”, which will be financed by other investments within the national plan,

⁸ Directive 2009/29/EC..., p. 63.

⁹ Communication from the Commission, Guidance document on the optional application of Article 10c of Directive 2003/87/EC, OJ C 99, 31.03.2011, p. 9.

- Member States must indicate that their support does not distort competition unduly, by selecting a limited number of beneficiaries and that the aid would not strengthen the market position of the beneficiaries to an extent beyond that absolutely necessary level.

Eligible costs shall be the annual costs of investments listed in the national plan corresponding to the market value of emission allowances for free to the beneficiary (regardless of the operating costs and profits from the plant). The aid intensity must not exceed 100% of the eligible costs.

The last type of state aid is the exclusion of certain small installations from the EU ETS. Individual Member States may exclude small installations, including hospitals, from the use of ETS pursuant to Article 27 Directive ETS.¹⁰ The condition is subject to the measures aimed at reducing greenhouse gas emissions. The condition for the introduction of these measures is that the reduction achieved by them was the same as can be achieved under the ETS. State aid will appear when offered by Member States of the measures will provide owners of small installations, the economic benefits that can distort or threaten to distort competition and affect trade within the internal market. Support to small installations and hospitals will be considered compatible with the internal market within the meaning of Article 107(3)(c) the TFEU.¹¹

2. Doubts related to the implementation of the Guidelines

In the process of public consultation the EU Member States reported a number of doubts regarding the possibility of granting state aid in the trading scheme for greenhouse gas emission. The main reported doubts were:

- limitation of the number of sectors and subsectors exposed to carbon leakage,
- CO₂ emission factor,
- incentive effect,
- investment in innovation,
- aid intensity.

The Community Guidelines assume that aid in sectors or subsectors exposed to risk of leakage is limited to 10. That limitation is incomprehensible due to the fact

¹⁰ Directive 2009/29/EC..., p. 63.

¹¹ Consolidated version of the Treaty...

that in the Commission Decision containing, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage approximately 140 sectors and subsectors are taken into consideration.¹² Lithuania put forward a motion to extend the list of sectors for all of the Communication from the Commission.¹³ Poland proposes to add the subsector: oxygen and nitrogen to the list of sectors including the manufacturers of wood panels and boards, concrete, plaster and cement and the technical gas.¹⁴ Italy wishes to add the manufacture of steel tubes sector,¹⁵ while Norway – the paper pulp industry,¹⁶ Spanish wants to industrial gases sector, pulp sector, cement sector, flat and hollow sector and lime sector¹⁷ and Sweden suggest to add mining of iron ores.¹⁸

Member States indicated that among the potential directions of moving production outside the European Union are those countries where entrepreneurs will incur lower costs of its activities or countries with lower environmental requirements, but also with lower energy prices. They are such countries as Russia, Ukraine, Belarus, China, India, Pakistan, Turkey, Serbia and the countries of North and South America. One factor that will also decide about the reallocation is the availability of factors of production and the cost of labor. Relocation of production outside the European Union will lead to the reduction in the emission volume in the Community. On the other hand, it will cause a global increase in emissions because plants operating outside the European Union are generally characterized by a lower efficiency.

¹² Commission Decision of 24 December 2009 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage, OJ L 1/2010.

¹³ http://ec.europa.eu/competition/consultations/2012_emissions_trading/lithuania_en.pdf (14.05.2012).

¹⁴ http://ec.europa.eu/competition/consultations/2012_emissions_trading/poland_en.pdf (14.05.2012).

¹⁵ Comments from the Italian authorities on the European commission's draft guidelines on certain state aid measures in the context of the greenhouse gas emission allowance trading scheme post-2012, p. 2.

¹⁶ http://ec.europa.eu/competition/consultations/2012_emissions_trading/norway_en.pdf (14.05.2012).

¹⁷ http://ec.europa.eu/competition/consultations/2012_emissions_trading/spain_en.pdf (14.05.2012).

¹⁸ http://ec.europa.eu/competition/consultations/2012_emissions_trading/sweden_en.pdf (14.05.2012).

Another question to which many Member States should pay attention to are the CO₂ emission factors. For example, the United Kingdom¹⁹ suggests that the CO₂ emissions factor established at the weighted average of the CO₂ intensity of electricity produced from fossil fuels does not accurately reflect the functioning of regional electricity markets where the marginal fuel source may change. They also noted that that the CO₂ emissions factor could be determined by assessing the trend of the average marginal fossil fuel used over previous years. Austria shows that the adopted emission factor of 0.79 is too high.²⁰ Belgium pointed out that placing this country among the countries Central West Europe was a mistake. This can result in unequal treatment of Belgian entrepreneurs in comparison to the German or Dutch ones.²¹ A similar question was posed by the Danish authorities who pointed out a high value of the indicator in comparison to other Scandinavian countries. It was suggested that all the Scandinavian countries should form one group with a common emission factor.²² Finland also suggests including Denmark to this area.²³ Many countries have also pointed out that the European Commission adopted a calculated emission factor takes into account the real situation in the energy market in the country, and also the formation mechanism of the market prices for the correct.

The difficulties in defining the incentive effect drew attention of the Czech Republic. In the Czech authorities' opinion defining a clear incentive effect is very problematic. Therefore, a better solution would be to propose a separate definition for each of the measures provided for in the Guidelines.²⁴ The Norwegian authorities have turned the attention to the vague definition of the incentive effect, to be shown through an alternative scenario shows that, without state aid to the investor did not

¹⁹ UK response to Commission consultation on draft State Aid guidelines on measures in the context of the EU ETS Directive, from 2013.

²⁰ Austrian opinion on the Guidelines on certain state aid measures in the context of the greenhouse gas emission allowance trading scheme post 2012, p. 2.

²¹ Belgian comments on the consultation regarding state aid measures in the context of the EU ETS, p. 2.

²² Comments on the draft Commission Guidelines for State aid in the context of the amended EU Emissions Trading Scheme post 2012, p. 2.

²³ Draft Communication from the Commission: Guidelines on Certain State Aid Measures in the Context of Greenhouse Gas Emission Allowance Trading Scheme Post 2012, p. 2.

²⁴ The Czech Republic's comments under a public consultation on Communication from the Commission – Guidelines on Certain State Aid Measures in the Context of the Greenhouse Gas Emission Allowance Trading Scheme Post-2012, p. 1.

carry that type of investment.²⁵ It was noted that the effect of incentives may have to do if the beneficiary has indicated that without the support will transfer production outside the EU, will reduce production, or freeze the planned investment. They proposed precise explanation of that term.

The Dutch authorities have highlighted an important thing which is to invest in innovation.²⁶ Investments in electricity efficiency and innovation are necessary for the European companies to stay competitive on the world markets. Therefore the state aid must be given to investments in innovation, energy efficiency, renewable energy sources to create a sustainable European industry.

The primary purpose of the compensation is to offset the cost of rising energy prices for energy intensive industries as a result of the ETS. The system should therefore alleviate a whole increased costs associated with ETS in order to maintain the competitiveness of energy intensive industries in the internal market and external. As a result they seem to be justified to determine the maximum intensity of max. 85%. This intensity will also be degressive. This issue was highlighted by the Polish authorities who pointed out that setting a level of compensation is unwarranted and would cause permanent increase burdens on industry. The degressive nature of the aid is linked with the increased number of allowances that entrepreneurs will have to acquire. The level of compensation should fully offset the increased cost of electricity caused by its producers purchase emission allowances. The degressive nature of the assistance may also be perceived negatively by entrepreneurs planning to invest. The Swedish authorities represent a different position that the proposed intensity of support is correct.²⁷ The need to provide own contribution seems reasonable because the beneficiaries pursue their investment in a rational and cost-effective way. On the other hand, when the investment costs are high, the own contribution may discourage investment in more efficient and less energy-emission solutions, because the costs of such investments are so high that the contribution will not be stimulating to carry out investments, and may even become a barrier to the development of the industry.

²⁵ Public consultation on the draft Commission Guidelines for State aid in the context of the amended EU Emissions Trading Scheme post 2012 – Response from the Norwegian Government, p. 5.

²⁶ Response of the Dutch authorities to the consultation regarding the Draft Commission Guidelines for State aid in the context of the amended EU Emissions Trading Scheme, p. 2.

²⁷ HT. 582 – Swedish comments on the draft guidelines on EU ETS compensation, p. 2.

Conclusions

To achieve the expected environmental effects ETS should not even provide the ability to provide state aid. However, the introduction of such a solution could lead to the need for the closure of many companies in the European Union. This would not be justified from an economic and environmental point of view. Therefore, the entrepreneurs should not be left to themselves, we should help them, and this help instrument is state aid. Granting unrestricted aid may distort competition in the market, therefore the its provision is specifically regulated by the EU.

New regulations such as the ones shown in this analysis have aroused considerable controversy. Every country has its own interests and wants the solution to be the most beneficial for their entrepreneurs. When deciding on any solution, the European Commission taking must take into account these suggestions, but remember not to reduce the environmental impact they have assumed.

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POMOC PUBLICZNA W KONTEKŚCIE SYSTEMU HANDLU UPRAWNIENIAMI DO EMISJI GAZÓW CIEPLARNIANYCH PO 2012 ROKU

Streszczenie

Pomoc publiczna jest to termin stosowany przez Komisję Europejską, który odnosi się do form wsparcia ze środków publicznych udzielanych przedsiębiorcom selektywnie, z potencjalnym wpływem na naruszenie konkurencji oraz wpływem na handel między państwami członkowskimi a Unią Europejską. Definicję pomocy publicznej można znaleźć w artykule 107 Traktatu o Funkcjonowaniu Unii Europejskiej. Europejski System Handlu Uprawnieniami (ETS) został ustanowiony w celu redukcji emisji CO₂ oraz uniknięcia zmian klimatu. ETS przewiduje środki w których występuje pomoc publiczna. Należy do nich pomoc: dla przedsiębiorstw narażonych na ryzyko ucieczki z powodu przerzucania kosztów uprawnień na koszty energii, na inwestycje dla wysoko sprawnych elektrowni, związana z bezpłatnym przydziałem uprawnień do emisji, związana z wyłączeniem małych instalacji.

Celem głównym artykułu jest pokazanie jak ta pomoc może być udzielana w kontekście ETS. Udzielanie pomocy państwa jest bardzo ważne dla konkurencyjności polskich przedsiębiorstw i może być narzędziem jej ratowania.

Słowa kluczowe: pomoc publiczna, europejski system handlu uprawnieniami do emisji.