

Next allocation phase of the EU emissions trading scheme: How tough will the future be?

E. Georgopoulou*, Y. Sarafidis, S. Mirasgedis, D.P. Lalas

National Observatory of Athens, Lofos Nimfon, Thession, Athens 11810, Greece

Available online 9 November 2005

Abstract

The development of National Allocation Plans (NAPs) for the first phase 2005–2007 of the EU emissions trading scheme (EU-ETS) was accompanied by the stated concern of the industrial enterprises with installations that fall under the scope of the relevant Directive 2003/87, since the impacts of the allocation in their financial and technical modes of operation were judged to be severe. Thus, the intensity of the negotiations for the next allocation phase (i.e. 2008–2012), is expected to be heated. With a view to assisting enterprises, especially in the energy sector or for which energy use and its management is a crucial part of their activity, to incorporate in their business plans the impacts of the Directive in an informed manner, an attempt is made here to explore the constraints and the available options that will guide the coming EU-ETS potential allocations. In the analysis, the credits derived from the use of CDM are specifically taken into account. The results show that the next allocations would tend to be significantly more stringent than the current ones because of the combined effect of no inter-period transfer of allowances, the amount of CDM credits expected to be available compared to the amount of effort that would be required and the yield of emission reductions from existing or planned policies and measures. It becomes then crucial, if not imperative, for the enterprises involved as well as national governments to examine carefully means to address their obligations under the Directive.

© 2005 Elsevier Ltd. All rights reserved.

Keywords: Emissions trading; Allocation; Climate change

1. Introduction

Directive 2003/87/EC establishing a scheme for trading greenhouse gas (GHG) emission allowances within the European Community (henceforth EU emissions trading scheme (EU-ETS)) was officially introduced in October 2003. According to the provisions of the Directive, the scheme, which commenced operation on 1 January, 2005, will be implemented first for a period of 3 years (2005–2007) and subsequently in 5-years periods, the first of which coincides with the first commitment period of the Kyoto Protocol (KP). The Directive obliges all Member States to develop National Allocation Plans (NAPs), which are notified by specific dates to all Member States and the European Commission for its approval.

In all Member States and especially in the ex EU-15, negotiations with industrial installations falling under the

scope of the Directive have been difficult, as many small enterprises were not sufficiently informed on the implementation requirements imposed by the Directive, while at the same time large and powerful industrial federations pressed for less stringent allocations. The concern on the allocations for the next 5-years implementation period was in many cases considered as premature and in only a very limited number of NAPs there are indications about the intentions of Member States on this issue.

A common feature in all NAPs is that all Member States decided against inter-period transfer of allowances (i.e. all allowances that would not be surrendered by the end of 2007, will be cancelled and not transferred to the subsequent 5-years implementation period). Therefore, since installations cannot use banked allowances from the first implementation period (2005–2007) in meeting their obligations for the next period 2008–2012 except through advance agreements for purchase of CERs (i.e. allowances from CDM projects), the stringiness of the next allocation may be of primary concern to them.

*Corresponding author. Tel.: +30 210 3490154; fax: +30 210 3490159.
E-mail address: elenag@meteo.noa.gr (E. Georgopoulou).

The evolution of GHG emissions both from ETS-installations and non-ETS sectors will affect the allocation of the subsequent implementation phase. It may be the case, especially if the supply of allowances during 2005–2007 exceeds the demand and the additional (to those currently implemented or adopted) measures in non-ETS sectors do not yield significant emission reductions during the same period, that practically no additional emission reductions will take place during the 3-year period 2005–2007 and therefore the necessary emissions trajectory during 2008–2012 in order to fulfill the Kyoto target will be steep, implying large reductions and restrictive allowance allocations. Therefore, it is necessary to assess first the stringency of the 2005–2007 allocations in the different Member States and to explore the potential of these allocations to lead to additional emission reductions or simply to transfers of allowances between installations. Then, as the performance of measures in non-ETS sectors during 2005–2007 will affect the national totals of GHG emissions at the end of 2007 and consequently the steepness of the Kyoto path, the potential of these measures needs to be examined. Finally, an additional aspect that influences the stringency of the next allocation is the potential exploitation of KP mechanisms during 2005–2007 (CDM only) and 2008–2012 (JI, CDM and Emissions Trading under Article 17) as the existence of a concrete plan for the exploitation of these tools, especially when accompanied by securing of the necessary funding for the purchase of credits, will allow a more ‘relaxed’ Kyoto trajectory and therefore a less stringent allocation to installations during 2008–2012.

The present paper attempts to explore all these questions with the aim of assessing the expectations for the allocation plans of the next phase of the EU-ETS under different scenarios. The results should be of use to individual installations, especially small ones, in determining their strategy on energy use and on investment for energy conservation or alternatively on utilization of both the flexible mechanisms of KP and market tools.

The methodology followed and data used are presented in the next Section 2, the results obtained in Section 3 and some concluding remarks in Section 4 below.

2. Methodological approach

2.1. Methodological steps and basic assumptions made

2.1.1. General overview

In order to answer the principal question addressed in this paper, i.e. how stringent the allocations for the next implementation period may be, the methodology adopted comprises the following steps:

Step 1: Comparison between BaU ETS emissions during 2005–2007 and the allocation imposed by the various NAPs.

Step 2: Specification of scenarios for the evolution of GHG emissions during the period 2005–2007 in view of the EU-ETS, other common policies and measures of the EU and the individual National Plans for the reduction of GHG emissions. During this step, emissions from ETS installations and from the sectors of the economy not covered by the EU-ETS are treated separately, in the form of ‘partial’ scenarios.

Step 3: Calculation of the relevant different emission trajectories in each Member State during 2005–2007, by combining appropriately the partial scenarios of step 2.

Step 4: Construction of baseline emission scenarios for 2008–2012 on the basis of emission estimates for 2005–2007 that result from the integrated GHG scenarios developed in the previous step.

Step 5: Calculation of the relevant different emission trajectories in each Member State during 2008–2012 towards achieving the Kyoto target during that period.

Step 6: Calculation of potential allocations for the 5-year implementation period 2008–2012 on the basis of the various Kyoto trajectories and comparison with the relevant emissions as estimated in step 4.

Some basic parameters/questions, which affect the evolution of GHG emissions during 2005–2007 and 2008–2012 and the allocation of allowances for the next implementation period of the EU-ETS and which are examined by this paper can be summarized as follows:

- Is there an overall net deficit at EU level between supply and demand of allowances during the period 2005–2007? If yes, how will this be covered by ETS installations, i.e. will it be covered through emission reductions as a result of the implementation of additional measures,¹ through purchase and use of CDM credits by ETS installations or by a combination of both?
- During 2005–2007, will additional measures (i.e. those measures additional to the ones in the ‘With measures’ scenario) in non-ETS sectors perform as planned in National Plans for GHG Emissions Reduction (NPER)?
- What can be the effect on potential allocations for the period 2008–2012 of the intended exploitation of the KP mechanisms by national governments of Member States during this period with the aim of fulfilling their KP commitment, taking into account also the ‘supplementarity’ principle?

¹According to UNFCCC decision 4/CP.5, the ‘With measures’ projection shall encompass currently implemented and adopted policies and measures, while the ‘With additional measures’ projection also encompasses planned policies and measures, i.e. those which represent “... options under discussion and having a realistic chance of being adopted and implemented in future”.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات