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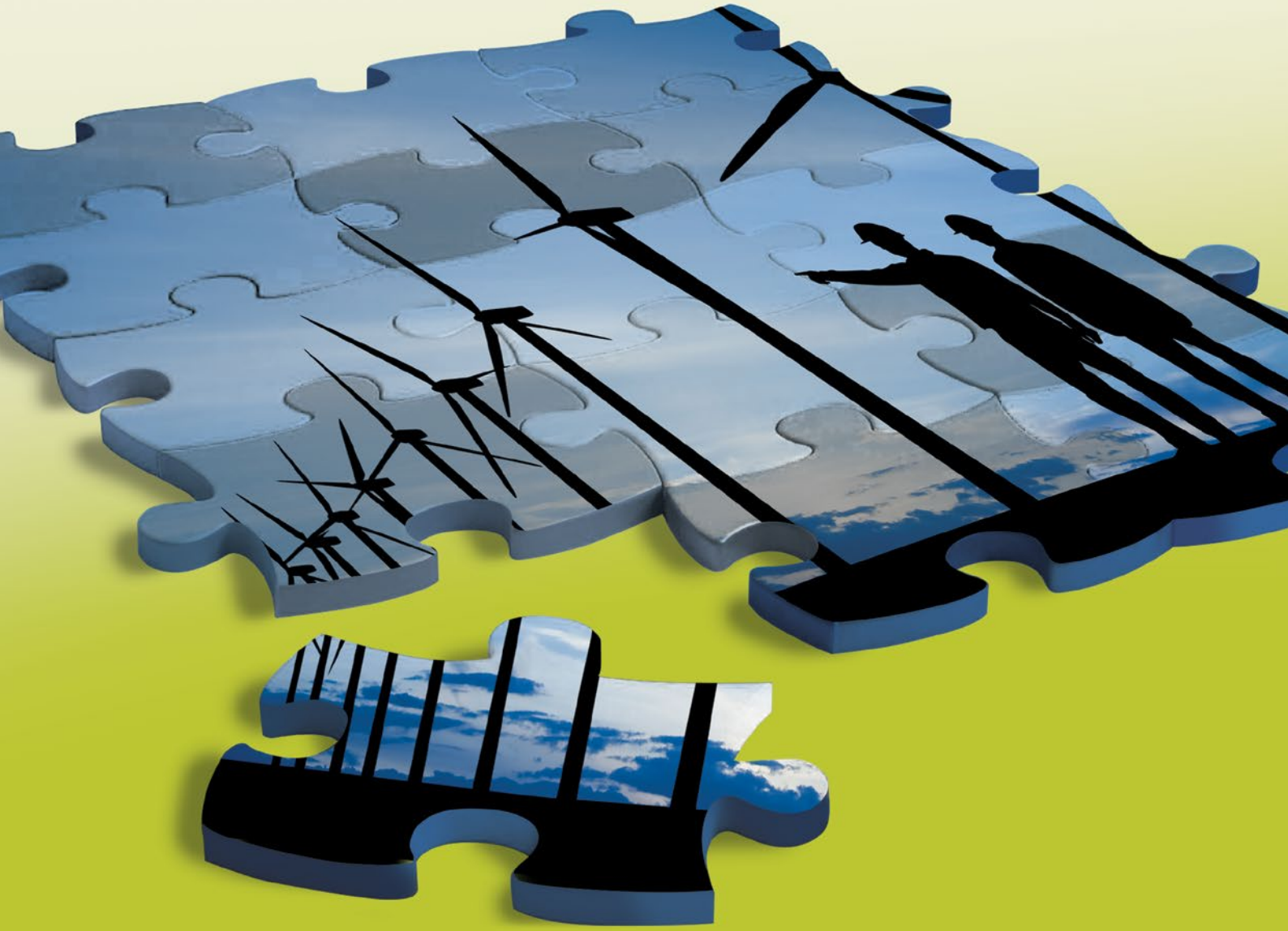
INVESTMENT SUPPORT AND SOLIDARITY MECHANISMS UNDER THE EU'S 2030 CLIMATE AND ENERGY FRAMEWORK



SEPTEMBER 2014

INTRODUCTION

This report provides policymakers across Europe with a first evaluation of the tools for effort sharing and investment support aimed at lower income EU Member States under the EU's 2020 climate and energy package. The report also provides recommendations for improving these tools in the context of the EU's 2030 climate and energy policy framework, which is currently being debated.

The report finds that existing mechanisms do not effectively contribute to decarbonisation and power system diversification, despite political commitments to ensure they would. These mechanisms represent the transfer of €12 billion (2013 to 2019) through the granting of free emission allowances to electricity producers in Central and Eastern Europe in return for investments in power system modernisation and the transfer of almost €9 billion (2013 to 2020) through the redistribution of ETS allowances in favour of lower income Member States.

CAN Europe, Greenpeace and WWF therefore recommend an overhaul of any financial support mechanisms that are carried over from the EU's 2020 climate and energy package to a new 2030 climate and energy framework.

THE CHALLENGE

As EU Member States debate the European Commission's proposal for 2030 EU climate and energy policies[1], the differing potential of countries to cut emissions and their ability to pay for those cuts has quickly become one of the most important issues to resolve. Because of historic underinvestment in energy efficiency and power system modernisation, Central and Eastern European Member States tend to have the greatest potential to cost-efficiently cut energy-related greenhouse gas emissions. However, because of their relatively low GDP per capita, these countries also have limited capacity to make the necessary investments[2].

If the EU is to maximise the benefits of Union-wide pollution cuts while reducing costs for the EU as a whole, new financing and investment support mechanisms will be vital. The cost-efficient achievement of the Union's proposed climate and energy targets at a comparable cost to all Member States will require an average annual transfer of about €3 billion from higher income to lower income Member States between 2021 and 2030 (about €30 billion in total)[3].

To decarbonise the EU's economy in the most cost effective way, the highest investment expenditures would be required in lower income Member States which have relatively less investment capacity but which hold the largest potential for cost-efficient emissions reductions, energy savings and deployment of renewable energy sources.

It is important to note that while lower income Member States face higher costs of transitioning to a more sustainable energy system, they will also benefit most from lower fuel import bills, reduced health impacts of local pollutants and decreased air pollution control costs. An accelerated rate of investments in the modernisation of these countries' ageing energy infrastructure would also enhance their competitiveness. Furthermore, the European Commission has highlighted that ambitious energy efficiency measures would result in a significant reduction of electricity prices in lower income Member States as improved efficiency would decrease pressure for additional power sector investments[4].

1 The European Commission published the Communication 'A policy framework for climate and energy in the period from 2020 to 2030' on 22 January 2014. The European Council is expected to agree 2030 climate and energy targets in October 2014.

2 Impact Assessment Accompanying the Communication 'A policy framework for climate and energy in the period from 2020 up to 2030', European Commission, 2014. Similar conclusions to those drawn in this Impact Assessment were previously made in the European Commission's 'Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage' (May 2010). These findings have been also confirmed in the report by IEEP and Öko-Institut developed in 2011 for Climate Action Network Europe (CAN Europe), Greenpeace and WWF: 'Achieving a 30 percent domestic carbon reduction target: Sharing the costs and benefits of green technology development in the European Union'.

3 A policy framework for climate and energy in the period from 2020 to 2030, European Commission, 2014.

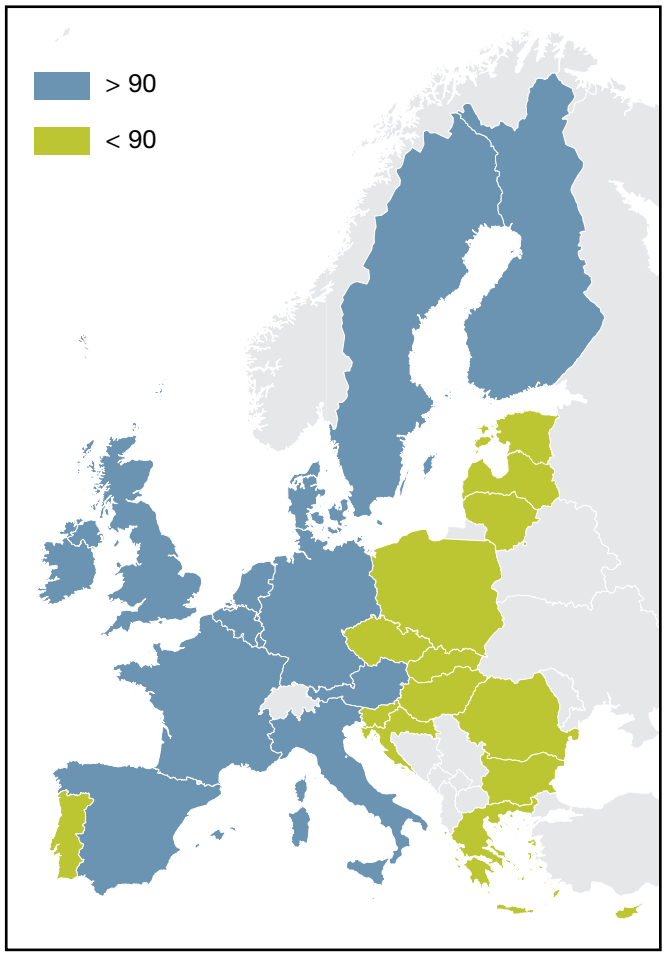
4 Impact Assessment Accompanying the Communication 'A policy framework for climate and energy in the period from 2020 up to 2030', European Commission, 2014.

Cost effectiveness in EU emission reductions – the need for cooperation

The European Commission's Communication on a 2030 climate and energy framework proposes optimising the costs of emission reductions at the European level by distributing effort among Member States on the basis of cost-efficiency. In other words, Member States with relatively more low-cost emissions reduction potential should take on a larger share of the effort. That would require lower income Member States, with relatively less investment capacity but substantial growth potential for renewable energy and energy savings, to bear higher energy systems costs and increased investment expenditures.

Lower income Member States are defined by the Commission as those with a GDP per capita below 90% of the EU average. They constitute almost half of all EU Member States: 15 out of 28. Nearly three quarters of them (all except Cyprus, Greece, Malta and Portugal) are former communist states in Central and Eastern Europe, a region described as "an orchard of low-hanging fruit, in terms of potential efficiency improvements and renewable energy increases"[5].

Figure 1: EU Member States GDP per capita in PPS in 2013, EU28 = 100



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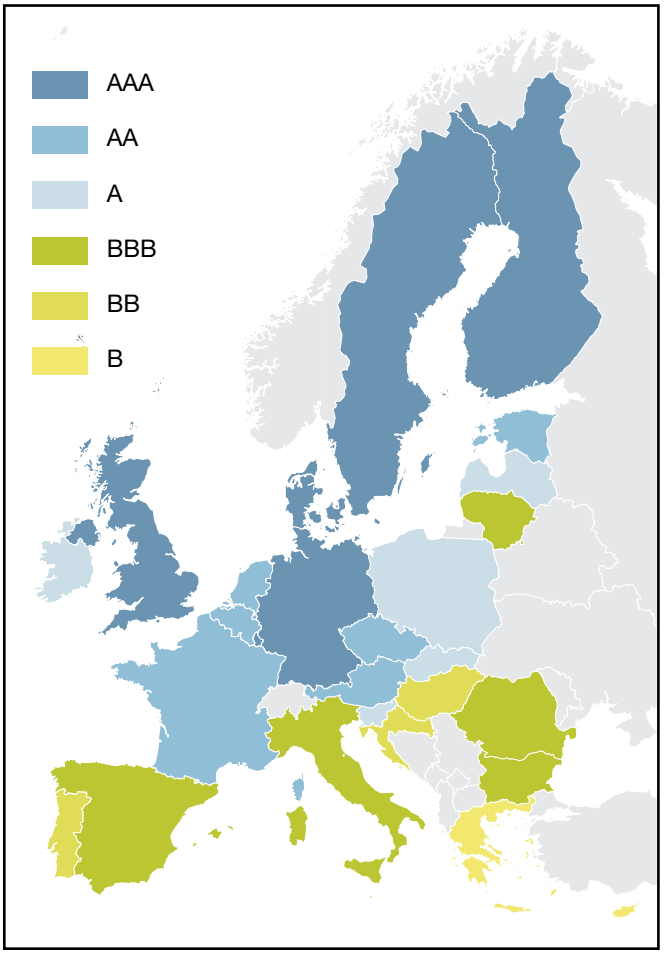
5 Eastern Europe's energy challenge: meeting its EU climate commitments, Oxford Institute for Energy Studies, David Buchan, 2010.

When assessing the ability of lower income Member States to meet the costs of sustainable energy investments, any new financing and investment mechanism(s) should also address the access to capital of these countries. On this point a number of Central and Eastern European governments, namely those of the Czech Republic, Estonia, Latvia, Poland, Slovakia and Slovenia score better than some longer-standing EU members. That means that their capacity to attract capital is higher than Greece, Italy, Portugal or Spain.

Consequently, it is reasonable to conclude that optimising the costs and strengthening the fairness of the EU's climate action to 2030 would require an EU-wide investment program aimed at supporting emission reduction investments in lower income Member States, which includes measures to provide better access to capital for those Member States that need it.

Figure 2: EU Member States' credit rating, 2014



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ASSESSING THE MECHANISMS UNDER THE EU'S 2020 CLIMATE AND ENERGY PACKAGE

The EU's current suite of climate and energy laws differentiates between higher and lower income Member States under both the EU ETS Directive and the Effort Sharing Decision.

Firstly, the Effort Sharing Decision follows the rationale that lower income Member States could not simply cut emissions without first having the opportunity to develop their economies in line with Western European nations. Therefore, having classified Member States by GDP per capita, poorer EU countries' need for development was recognised by allowing them to increase their emissions up to 2020 in non-ETS sectors: road transport, buildings, agriculture, and waste.

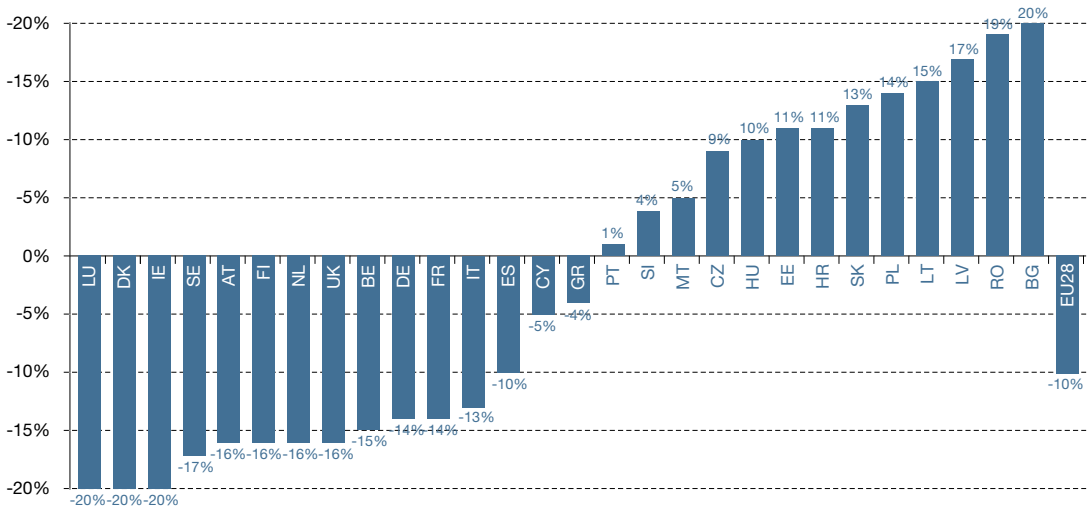
Secondly, the ETS Directive includes mechanisms to redistribute allowances in favour of poorer Member States – known as the solidarity mechanism[6] and the Kyoto bonus. Through these mechanisms lower income Member States were given a higher proportion of ETS allowances which they could then auction to raise funds for energy sector modernisation. In addition, newer EU Member States were also allowed to exempt their power producers from buying all of their emissions allowances at auction and instead provide a free allocation of allowances up until 2019.

The debate about future support mechanism(s) should be guided first and foremost by an in depth assessment of the current mechanisms' performance. Despite its relatively short period of operation, it is already possible to provide a first assessment of allowances redistribution and the transitional free allocation mechanisms' effectiveness in facilitating lower income Member States' transition to a low-carbon economy.

The Effort Sharing Decision

The Effort Sharing Decision (ESD) established national 2020 GHG emissions reduction targets, as well as binding annual targets, for the period 2013-2020 for all EU Member States. They were set on the basis of Member States' relative wealth measured by GDP per capita. While wealthier Member States, where GDP per capita exceeds the EU average, have been tasked with reducing their emissions below 2005 levels, most of the lower income Member States were allowed to increase their emissions, varying from +1% up to +20% by 2020 above 2005 levels. As a consequence countries' targets range from a 20% emissions *reduction* by 2020 (from 2005 levels) for Denmark, Luxembourg and Ireland to a 20% emissions *increase* for Bulgaria (also against 2005 levels).

Figure 3: Member States 2020 targets in the non-ETS sectors (compared to 2005 levels)



6 Some of higher income Member States are also benefiting from solidarity mechanism of allowances redistribution. These are: Belgium, Luxembourg, Spain and Sweden.

Under the ESD, an EU Member State is allowed to trade a part of its annual emission allocations (AEAs), constituting their ESD carbon budgets, with other Member States.

In theory, this element of the 2020 climate and energy package could have provided a source of revenue for poorer Member States with more generous allocations and greater abatement potential who may therefore find themselves with surplus non-ETS credits.

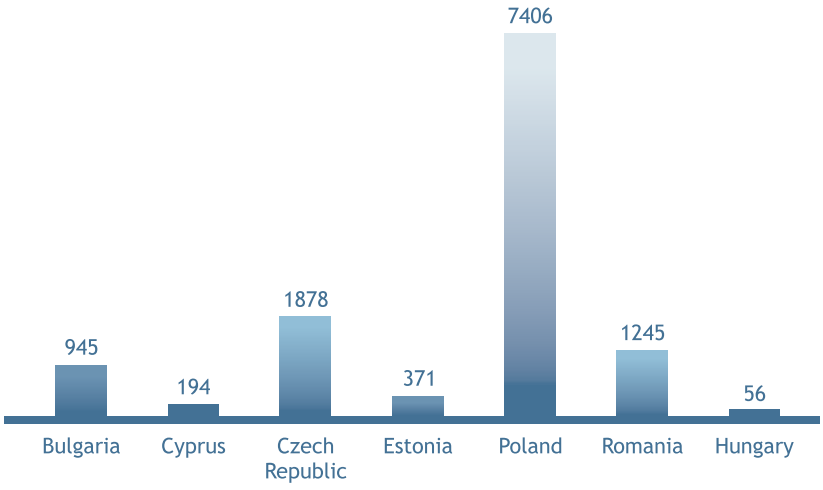
However, in reality, the low level of the EU's emission reduction target for 2020 and the leniency of rules allowing the use of international offset credits[7] have meant that the intra-Member State trading provisions of the ESD are unlikely to be needed. According to European Environment Agency all lower income Member States (except Estonia) are well on track to meeting their first 2013 ESD target and two-thirds of the lower income Member States are forecast to overshoot their 2020 targets. Moreover, the majority of all EU Member States are expected to meet their targets with the policy measures already in place[8]. Therefore, rather than demand driving a domestic European market in AEAs, calculations by Ecofys suggest that there will be an oversupply of 1.1-2.2bn AEAs by 2020[9].

Transitional free allocation to power producers - fostering energy modernisation

Under the ETS Directive, from 2013 onwards electricity producers should have to buy all of their emissions allowances at auction (rather than being given them for free). However, during the 2008 negotiations of the 2020 climate and energy package, it was agreed that ten new EU Member States would be allowed to keep handing out free emission allowances to their power producers up to 2019 under Article 10c of the ETS Directive. To avoid both windfall profits and undue distortions of competition, the Article 10c derogation was temporarily allowed on the condition that the value of free allowances would be invested into diversification of the energy mix, clean technologies and retrofitting and upgrading of the infrastructure. The governments of eight Member States decided to make use of this mechanism to foster the modernisation of their electricity generation: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Lithuania, Poland and Romania[10].

In total, by the end of 2012, the European Commission had approved almost 680 million allowances to be handed out for free to power producers in these eight Member States from 2013 to 2019. The aggregate value of corresponding investments into the diversification and modernisation of their electricity sectors should amount to over €12 billion[11], varying from €56 million for Hungary to almost €7.5 billion for Poland[12].

Figure 4: Value of investments in modernisation and diversification of electricity generation to be realised by Member States in return for free allocation of emission allowances (in milion €)



7 The Effort Sharing Decision allows for achieving of more than 50% of the total effort by purchasing international offset credits.

8 Tracking progress towards Europe's climate and energy targets until 2020, report 10/2013, EEA, 2013.

9 The next step in Europe's climate ambition: setting targets for 2030 (commissioned by Greenpeace), Ecofys 2013. Calculations by Ecofys used projections from the European Environment Agency.

10 Latvia and Malta decided not make take the possible derogation up. Slovenia and Slovakia weren't eligible for the derogation.

11 €12 095 million without taking into account the value of the Lithuanian National Investment Plan, which, as of August 2014, is still under scrutiny in DG Competition regarding state aid compliance.

12 In order to calculate the value of investments related to the Article 10c derogation, the European Commission has developed a special methodology. The value of the investments for each Member State was communicated in European Commission state aid decisions issued for individual Member State. These values are presented in the figure above.

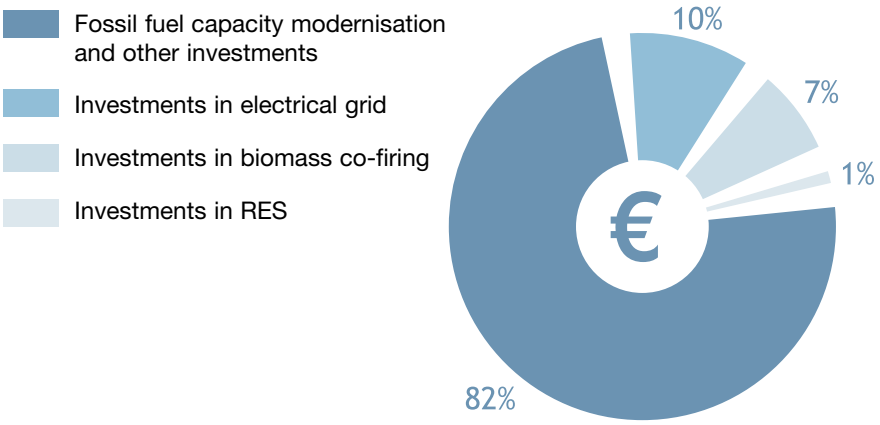
By allowing poorer EU Member States to grant power producers free allowances in return for the modernisation and diversification of their electricity generation, this mechanism sought to boost low-carbon investments and facilitate reductions in power sector carbon intensity. National Investment Plans, listing all investments to be realised in return for free allocation, detailed these countries' commitments on how they intended to achieve these aims. According to European Commission recommendations,[13] Member States' Article 10c investments should aim at eliminating any need to make use of such derogations in the future[14]. Due to this requirement Bulgaria, Czech Republic, Hungary, Poland and Romania, all eligible to apply for free allocation because of their high dependency on a single fuel for power production, should have invested in diversifying their energy mix.

However, the requirements for diversification were hindered by unclear language in the Directive and weak enforcement by the European Commission.

In Poland and the Czech Republic, the two most coal-dependent EU Member States and biggest beneficiaries of the transitional free allocation, the majority of Article 10c investments will lead to these countries' continued dependence on fossil fuels.

In Poland, the largest beneficiary and most vocal supporter of the Article 10c derogation, none of the 378 investments listed in the National Investment Plan relate to solar or wind power generation[15]. Out of 27 investments classified as "renewable energy" 24 are investmensts in biomass co-firing with coal. Therefore, while the Polish government's plan includes a small number of investments in the power grid, the overwhelming majority of investments are in the modernisation of existing fossil fuel generation capacity rather than the diversification of Poland's electricity mix, which is overwhelmingly dominated by coal. The same situation occurs in Romania, the third largest beneficiary of free Arcticle 10c allocations, where 98% of projects in the National Investment Plan are for new fossil fuel capacity.

Figure 5: Investments in modernisation of electricity generation and diversification of energy mix in the Polish National Plans under Article 10c



13 Guidance document on the optional application of Article 10c of Directive 2003/87/EC, European Commission, 2011.

14 Derogation was given to Member States with high dependency on a single fuel for electricity production, combined with low GDP per capita or for countries with poor connectivity with the European grid network

15 This analysis of the Polish National Investment Plan is based on its final version approved by the European Commission on 22 January 2014.

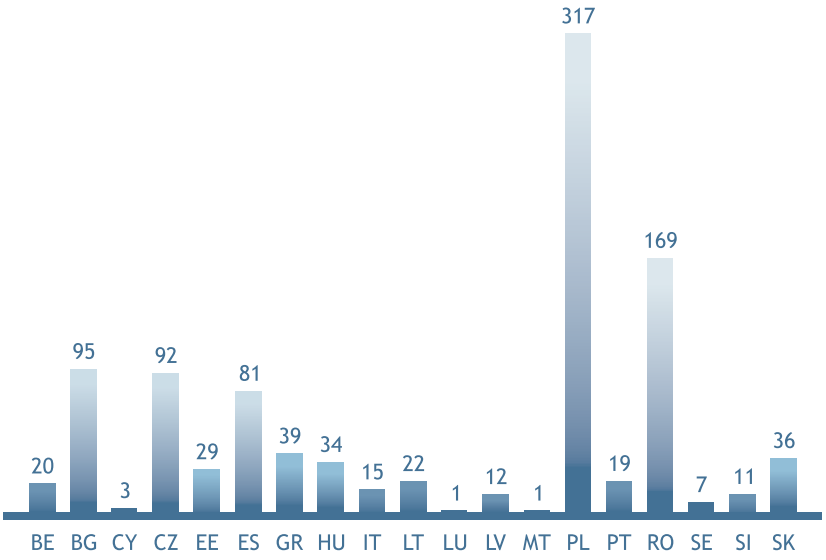
These examples of the misuse of Article 10c transitional free allocations demonstrate the inadequacy of this tool to drive low-carbon modernisation in the electricity sector. Instead, continued coal dependency will most likely lead to these countries in general, and Poland in particular, demanding further exemptions and continuously jeopardising EU's climate policies for years to come. A continuation of Article 10c free allocation of emissions allowances after 2019 will put at risk the EU's progress towards power sector decarbonisation.

The ETS Directive – The use of income from the auctioning of emissions allowances

The 2009 review of the ETS Directive decided that while 88% of auctioned allowances would be distributed on the basis of Member States' share of 2005 ETS verified emissions, the remaining 12% would be governed by a different redistribution formula. 10% of all auctioned allowances would be distributed for the purpose of *solidarity and growth*, taking into account Member States' 2005 income per capita and growth prospects - known as the 'solidarity mechanism'[16]. The remaining 2% of all auctioned allowances would be distributed among those Member States which by 2005 had reduced their emissions by at least 20% under the Kyoto Protocol base year – known as the 'Kyoto bonus mechanism'[17].

In total, these two mechanisms provide their beneficiaries with over 1 billion additional allowances: almost 880 million allowances for poorer Member States, including 821 for new EU members, and 124 million for higher income EU countries entitled to benefit from the solidarity mechanism. Assuming an average €10 carbon price between 2013 and 2020[18], lower income Member States will be supported by additional revenues of close to €9 billion.

Figure 6: The total number of additional allowances redistributed among Member States under the solidarity and Kyoto bonus mechanisms (in milion allowances)[19]



16 Countries benefitting from this mechanism are: Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Spain, Greece, Hungary, Italy, Lithuania, Luxembourg, Latvia, Malta, Poland, Portugal, Romania, Slovenia, Slovakia and Sweden.

17 Countries benefitting from this mechanism are: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia.

18 This report assumes an average carbon price of €10 between 2013 and 2020 and an average carbon price of €20 between 2021 and 2030 due to a proposed stricter linear reduction factor as part of the EU's 2030 climate and energy framework.

19 Calculations on the number of allowances by Öko-Institut (2012)

An increase in governments' auctioning revenues does not yet guarantee that additional funds are effectively used to support low-carbon transition. The EU ETS Directive recommends that at least 50% of revenues from auctioning ETS allowances should be invested in tackling climate change. The Directive further recommends that auctioning revenues raised by Member States under the solidarity and Kyoto bonus mechanisms should be 100% earmarked for climate purposes. Those include GHG emissions reductions, development of renewable energies, and promoting public transport.

However, this recommendation is not legally binding. That weakness has resulted in some Member States benefiting from additional auction allowances while not spending their auctioning revenues on transitioning to a low carbon future. For example, the Romanian government, the second largest recipient of additional ETS allowances, foresees that almost one-third of revenues will go to the state budget.

While the remaining two-thirds of Romania's ETS revenues are earmarked for climate related actions, there is very little transparency on exactly which projects will receive financial support.

Poland, the largest beneficiary of redistribution mechanisms, plans to use all of its auctioning revenues to reduce its budget deficit. That means that all of Poland's additional ETS revenues – valued at over €3 billion, assuming an average €10 carbon price up to 2020 – will be spent contrary not only to the ETS Directive's recommendations but also a political agreement made between Member States on the 2020 climate and energy package.

INVESTMENT SUPPORT UNDER THE 2030 CLIMATE AND ENERGY FRAMEWORK

First and foremost, after 2020 all EU Member States should be required to reduce their emissions (no EU country should be allowed to increase its emissions in non-ETS sectors). Unused 2013-2020 annual emission allocations (AEAs) for the non-ETS sector should not be carried over to the post-2020 system, as agreed under the current Effort Sharing Decision. A decision to carry-over AEAs would seriously undermine the effectiveness of the EU's 2030 targets.

Financial support for decarbonisation investments should be aimed at Member States with a lower capacity to invest (with GDP per capita of less than 90% of the EU average) and those with limited access to capital. As the current mechanisms (solidarity mechanism, Kyoto Bonus, Article 10c derogation) have proved so far to be ineffective in driving a low-carbon transition in poorer Member States, the EU should consider deeply reforming their functioning or replacing them with alternatives that could effectively leverage private investments that contribute to the proposed EU's 2030 climate and energy objectives.

Continuation of transitional free allocation for power generators would distort competition, hinder the completion of the EU Internal Energy Market and endanger the EU's long-term decarbonisation objective. From 2020 onwards, power producers in all EU Member States should buy 100% of their allowances at auction.

With regard to the allowances redistribution mechanism, all revenues gained by Member States through the sale of additional ETS credits should be strictly earmarked for renewable energy and energy efficiency investments. The European Commission has a new opportunity to catalyse this potential source based on recently agreed Member States' reporting requirements[20] on the use of ETS auctioning revenues.

After 2020, investments in lower income Member States could be assisted by a comparable mechanism to the NER300 initiative[21]. Such a fund would be replenished with revenues from sale of ETS allowances and the European Investment Bank would supervise the mechanism' implementation. Higher income Member States would be obliged to contribute to the fund by providing an agreed proportion of their ETS allowances each year. The fund would provide capital which national public banking institutions could leverage into larger direct loans for small and medium-scale projects, for instance:

- Grants and loans to increase energy efficiency in the residential sector, dominated in many lower income Member States by multiple apartment blocks where residents face difficulties in obtaining funds for renovation due to legal ownership arrangements.
- Grants and loans for private investors for both construction of new energy-neutral buildings and the retrofitting with energy efficiency measures of existing buildings.
- Loans aiming to reduce energy use through the refurbishment of public buildings including schools, hospitals, public administration buildings and prisons.
- Credit lines to small and medium sized businesses to invest in new, sustainable energy technologies (energy efficiency, renewable energy solutions).

20 Article 17 of Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change

21 Under current rules, the European Investment Bank (EIB) was tasked to monetise 300 million emission allowances. In two rounds of sales of allowances the EIB has raised over €2 bn. The funds are intended to support innovative renewable energy technologies and carbon capture and storage demonstration projects in the EU.

In contrast with the EU's 2020 climate and energy package, strong governance and binding performance criteria should be an integral part of any 2030 support mechanism(s):

- EU Member States benefiting from the support mechanism(s) would have to provide effective monitoring of funds, robust reporting and transparent verification.
- An EU-level body such as the European Investment Bank (EIB), should scrutinise the investment plans of EU Member States and ensure optimal use of the available funds.
- Support should prioritise projects with societal co-benefits such as the reduction of fuel costs, lower health costs and increased employment.
- Member States should only be allowed to access the fund after full and correct transposition of the revised directives that will constitute the 2030 climate and energy framework, approval of the required national action plans by the European Commission and a phase out of fossil fuel subsidies.

Assuming an average carbon price of €20 per tonne between 2021 and 2030[22] a fund with a total capacity of €10 billion could be replenished through the sale of 500 million ETS allowances between 2021 and 2030. The lower income Member States eligible to benefit from the mechanism should have guaranteed pro rata access with a portion of the fund reserved for best performers. To ensure optimal use and guarantee the effectiveness of investments, the assistance of financial experts and engineers could be provided.

This report shows that the importance of effective financial support mechanisms for lower income EU Member States is as clear as the failure of the current tools to drive energy sector decarbonisation. These lessons must be learnt now, so as to avoid a repetition of such mistakes in the 2030 EU climate and energy framework.

22 This report assumes an average carbon price of €10 between 2013 and 2020 and an average carbon price of €20 between 2021 and 2030 due to a proposed ETS structural reform and a stricter linear reduction factor as part of the EU's 2030 climate and energy framework.

Recommendations

- To guarantee the fairness and equity of the 2030 climate and energy framework, financial mechanisms that support the transition of lower income Member States to more sustainable energy systems are essential.
- Post-2020 financial support for the transformation of lower income Member States' energy systems must be conditional on these countries pursuing policies designed to attract renewable energy investment, overcome barriers to energy efficiency, phase out fossil fuel subsidies as well as the full and timely implementation of the revised Directives that will constitute the EU's 2030 framework.
- Financial assistance for investments in coal generation (refurbishment, modernisation, life extension, biomass co-firing with coal) must be strictly forbidden.
- Investment support for lower income Member States should be assisted by a central EU fund replenished with revenues from the sale of the ETS allowances and overseen by the European Investment Bank. If the current ETS allowance redistribution mechanism is retained, additional auctioning revenues for poorer Member States must only be used to increase energy efficiency and diversify energy mixes through the development of renewable energy.
- The mechanism of transitional free allocation of ETS allowances for power generators should not continue after 2019. Such free allocation distorts competition, hinders completion of the EU Internal Energy Market and endangers the EU's long-term decarbonisation objectives. From 2020 onwards, power producers in all EU Member States should buy 100% of their allowances through auctions.

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CAN Europe, Greenpeace and WWF call for a coherent EU 2030 climate and energy policy framework, delivering:

- Domestic greenhouse gas reductions of at least 55% compared to 1990 levels
- At least 45% renewable energy in final energy consumption
- At least 40% less energy use than in 2005

The effort needed to deliver these targets should be shared between all EU Member States and implemented through national binding targets.

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