Better climate mitigation in Europe after 2020

New flexibility for efficient transition to a low-carbon economy

EnergiNorge

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Foto: Jostein Viestad / Norsk Hydro ASA

Energy Norway proposes a new flexibility mechanism in the Effort Sharing Decision (ESD) after 2020. The new mechanism should make it possible for Member States to contribute to their national targets in the ESD by financing additional emission reductions from projects in sectors covered by emissions trading scheme (ETS). The new mechanism gives incentives to better climate mitigation in Europe after 2020, bridging the gap between carbon pricing and long-term technology innovation in ETS-sectors.

WHAT IS THE CHALLENGE?

The EU has agreed on targets for the EU's 2030 Climate and Energy Policy: a 43 % reduction of emissions in the sectors covered by the Emissions Trading Scheme (ETS) and a 30 % reduction in the non-ETS sectors, both compared to 2005. The ETS covers larger point sources in industry and the power sector, whereas the non-ETS sectors, like transport and buildings, are covered by the Effort Sharing Decision (ESD).

In the ESD, contrary to in the ETS, individual countries have different emission targets and reduction options, resulting in different Marginal Abatement Costs (MAC) or more simplified: different climate mitigation costs. There is also significant differences in mitigation costs between the ETS and ESD sectors due to differences in reduction options.

In many countries, like Norway, the climate mitigation costs in the ESD-sectors are well above those in the ETS. The EU tries to even out differences in mitigation costs through flexibility mechanisms. The first type regards existing flexibilities within the ESD, both between Member States and between actions today and actions in the future. In addition, the EU now proposes to even out differences in mitigations costs between the ETS and the ESD through the proposed "one off limited reduction of ETS-allowances" mechanism.

At the same time, most Member States have adopted national additional measures in the ETS sectors through taxes, levies and technical requirements that undermine the ETS price. The background is national climate targets going beyond EU targets, revenue needs and/or concerns about long-term lock-in when the ETS price is below fuel shift levels. Many countries are planning to continue this.

The challenge after 2020 is how cost-efficient mitigation measures in Europe can become better aligned with the ETS to reach the 2030-targets in a 2050-perspective. We believe that increased flexibility can be part of the answer.

WHAT DO WE PROPOSE?

In this note, we propose a new project-based limited flexibility mechanism that would also allow transfer of allowances to the ESD sectors due to additional emission reductions in the ETS sectors. The aim is to increase cost-efficiency and even out differences in mitigation costs between EU Member States while preserving environmental integrity and a balanced incentive structure between sectors.

The proposal concretely involves a mechanism whereby Member States can receive additional Annual Emission Allowances (AEAs) in the ESD sectors under the ESD, based on financing of additional measures and emission reductions in the ETS-sectors. Correspondingly, the EU Allowance Units in the ETS (EUAs) and emissions from the project, are taken out from the ETS, leading to reduced auctioning revenue to the Member State (or share of free allowances if relevant). This has no net impact on the EU ETS balance and no net change in climate mitigation, but such a mechanism would lower the Member State's overall abatement costs and be compatible with the ETS contrary to today's national additional measures. The proposal is illustrated in Annexes 1 and 2.

HOW CAN IT BE DONE?

Let us use Norway as an example since Norway is to become part of the ESD after 2020:

Norway is a country with a high gross national product/capita and therefore expected to have an ESD target of close to 40 % from 2005-2030. Norway can use the "one-off limited option" decided by the European Council, reducing in practice the ESD target to around 38 % (example) through a corresponding cancellation of allowances in the ETS (reflected in reduced auctioning revenues for Norway). In principle, this affects the ETS balance since the supply of allowances is reduced, but the demand is the same.

After exhausting national emission reduction options in the ESD sectors, at costs that are considered acceptable (for example EUR 100 per ton CO_2-equivalents), projections in the national progress report predict a 30 % reduction in 2030, 8 percentage points (pp) below the national target. Availability and prices of allowances from other EEA-states are uncertain, but through new trading platforms organized after 2020, Norway can predict to be able to buy allowances

corresponding to five percentage points of its target, totaling a 35 % reduction from 1990, leaving a three percentage points deficit. This depends on other Member States in a non-liquid market and in any case, the deficit in the plan equals two million tons CO2-equivalents in 2030.

How could this be dealt with in a rational, cost efficient manner when international credits are no longer available?

The solution is to add the proposed project-based mechanism to the ESD whereby Norway can offset ESD emission reductions by financing additional efforts in the ETS-sectors as an alternative, or in addition to, other flexibility mechanism. The mechanism can be limited to a certain percentage of the country's emissions in the ESD sector in 2005, which is the reference year for ESD-calculations, if this is considered necessary to ensure the incentive structure in ESD-sectors in a 2050-perspective. A 10 % ceiling for example would imply approximately 2,5 million tons of CO2-equivalents for Norway.

Norway has major emissions from offshore petroleum installations and industry covered by the ETS. Some of these emissions are already reduced through the combination of the EUA price (anticipated to be EUR 25-35 per ton CO2-equivalents in 2030), national taxes and technical requirements. However, several reduction options that have not been initiated are in the range above this price level (let us say for example EUR 75 per ton CO2-equivalents), but still below the mitigation costs in the ESD of over EUR 100 per ton CO2-equivalents.

As an example, Norway selects two projects that are to receive funding for additional emission reductions of two million tons CO2-equivalents, that cost EUR 75 per ton CO2-equivalents. This is done through a transparent and technology-neutral process (auction and/or through public procurement) by the public body coordinating climate mitigation measures in Norway. The selection criteria are based on cost/benefit, but also on long-term technology development objectives in a global perspective. One project selected could for example be the electrification of an offshore petroleum installation in the North Sea and the other project could be the conversion from coal to hydrogen at Titanium and Iron industry site. The projects contribute with concrete and additional emission reductions in the EU ETS, through withdrawal in the supply of EUAs corresponding to the projects' emission reductions of two million tons CO2-equivalents. The balance of supply and demand in the ETS is not affected since supply and demand is reduced by the same amount: the offshore installation and the industry site will reduce their demand for EUAs by the size of the projects' emission reductions of two million tons CO2-equivalents. In addition, the projects have international relevance and the process makes sure that lessons learned are publicly available at the global level.

Before the financing decision, the European Commission and the EFTA Surveillance Authority (ESA), after consulting Member States, Iceland and Liechtenstein, have approved the projects based on a report from the Norwegian National Authority with independent assessment of additionality and proportionality to ensure that state aid rules also are addressed.

Through the extra emission reductions achieved by the two projects in the ETS, Norway receives additional AEAs corresponding to the emission reductions from the projects (Two million tons CO2-equivalents) and thus achieves its 38 % reduction target. At the same time, the Commission withdraws emission allowances (EUAs) from the ETS achieved by the project, leading to reduced emissions from the ETS and also to reduced auctioning revenue (or free allowance share if relevant) to the State of Norway. This has, as described above, no net impact on the EU ETS balance and will give no net change in climate mitigation, but such a mechanism would lower Norway's overall abatement costs and prevent additional measures in ETS sectors with negative effect on the ETS balance.

The proposal is discussed in more detail in the Memos in Annex 4 and 5, and a concrete legal text is included in Annex 3.

WHAT ARE THE BENEFITS?

The proposal has the following benefits:

- Increased cost-effectiveness
- Increased predictability since the mechanism is not dependent on other states, but on the market operators
- No impact on the balance of ETS market and preservation of ETS integrity

• Environmental integrity
• Involves private sector in efforts to achieve ESD targets
• Contribution to long term convergence in mitigation costs between ETS and ESD/non-ETS
• Complementary to other flexibilities for the above reasons
• Facilitates technology development in the ETS sectors complementing the ETS in the long term
• Provides a controlled long-term frame for new additional national measures in the ETS, not influencing the ETS balance, thereby strengthening the ETS

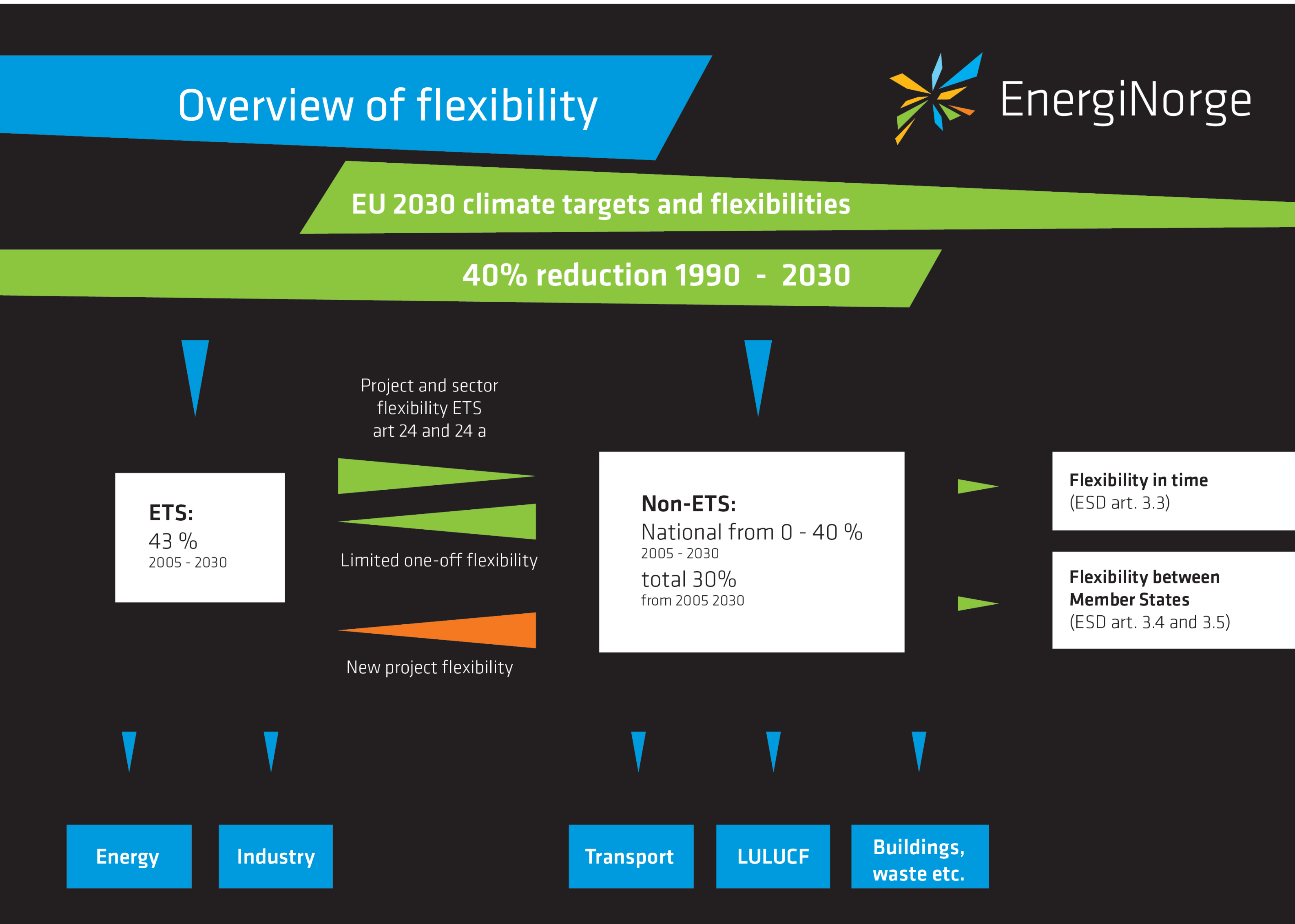
WHAT ARE THE CHALLENGES

How can they be addressed?
The proposal increases the complexity of climate policy and the administrative burden, in particular on the Commission, but also on the Member States, through the need to assess the following aspects in an open and sound process:
• Verification of emission reductions
• Assessment of additionality
• Approval and allocation of emission reductions
• Timing of conversion of EUAs to AEAs
• Distribution of risk for non-compliance
• Timing and modalities of payments

This can be addressed by building on existing experience with assessment of Joint Initiative-projects (JI) and the national processes when adopting additional national measures.

In addition, the relationship with regulations on state aid must be assessed, but if the mechanism and the corresponding financing at national level is based on a harmonized approach in primary EU legislation, the issues of competition and level playing field could be clarified.

Finally, a general challenge would be political acceptance of a government-driven selection process, while the ETS per definition and design should find the lowest abatement projects. Although the new flexibility is not an ideal solution in an ideal world, it can be a good solution to overcome the division and differences in mitigation costs from 2020 to 2030 between ETS and ESD. It can also address some of the limits of the incentives arising from the relatively low price in the ETS compared to the price for abatements in the ESD until 2030. The proposal will complement the ETS in a better way than other additional measures and it will facilitate the achievement of ESD-targets.



Simplified MAC curve

EUROPEAN CO_2 ABATEMENT

with new flexibility

ANNEXES:

1) Figure showing targets and flexibilities
2) Figure illustrating the new flexibility mechanism
3) Proposal for legal text
4) Thema Memo 2015-07 Cost efficient climate mitigation
5) Thema Memo 2015-06 Measures to reduce GHG emissions in non-ETS sectors in Norway towards 2030

1. NEW ARTICLE 5B EFFORT SHARING

Use of credits from additional project based activities in sectors covered by the Community Trading scheme.

Member States may, for the implementation of their obligations under Article X of this Decision, use additional greenhouse gas emission reduction credits resulting from projects or other emission reducing activities in sectors covered by the Community Trading scheme, taking into account all relevant criteria, in particular the effects on the internal market, potential distortions of competition, the environmental integrity of abatement measures and the Community Trading scheme, and the reliability of the planned monitoring and reporting system, provided that inclusion of such projects is approved by the Commission.

The annual use of credits by each Member State pursuant shall not exceed a quantity equal to XX percentage of the national greenhouse gas emissions covered by this Decision in 2005, and be subject to approval by the Commission.

Any such measures shall not result in the double counting of emission reductions nor impede the undertaking or other policy measures to reduce emissions covered by this Decision.
The Commission shall adopt measures, designed to amend non-essential elements of this Decision by supplementing it, necessary to implement paragraph 1 by 01.01 2020 in accordance with the procedure with scrutiny referred to in Article XX

2. NEW ARTICLE 24B ETS ART

Adjustment of the scope of the emissions trading scheme where emissions are covered by projects under ESD article 5b

When the Commission approves projects under the Effort sharing decision article 5b, it shall at the same time authorise a corresponding reduction in the scope of the emissions covered by the emissions trading scheme in accordance with article 2 and a reduction of the quantity of allowances in accordance with article 9."

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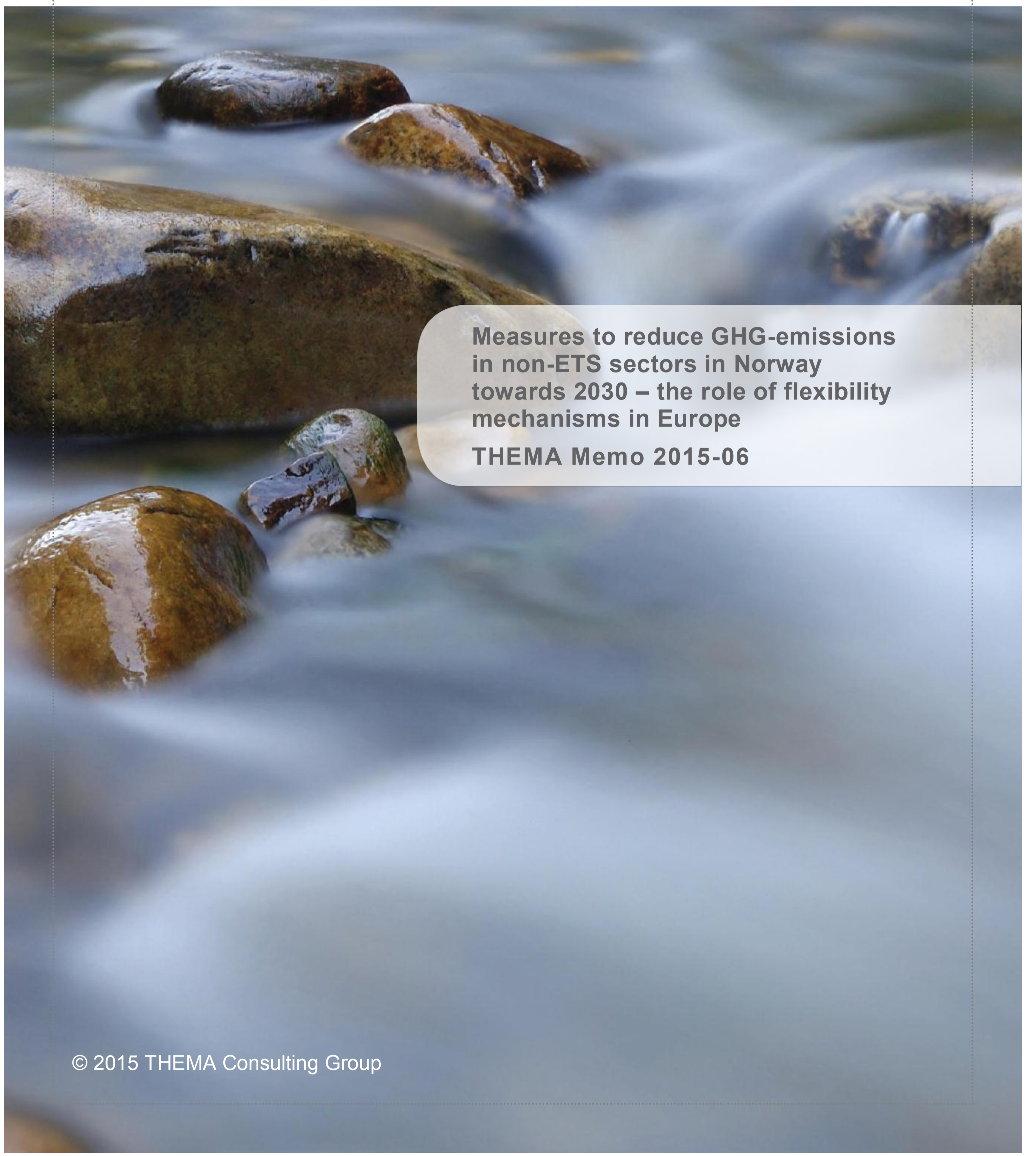

Measures to reduce GHG-emissions in non-ETS sectors in Norway towards 2030 – the role of flexibility mechanisms in Europe

THEMA Memo 2015-06

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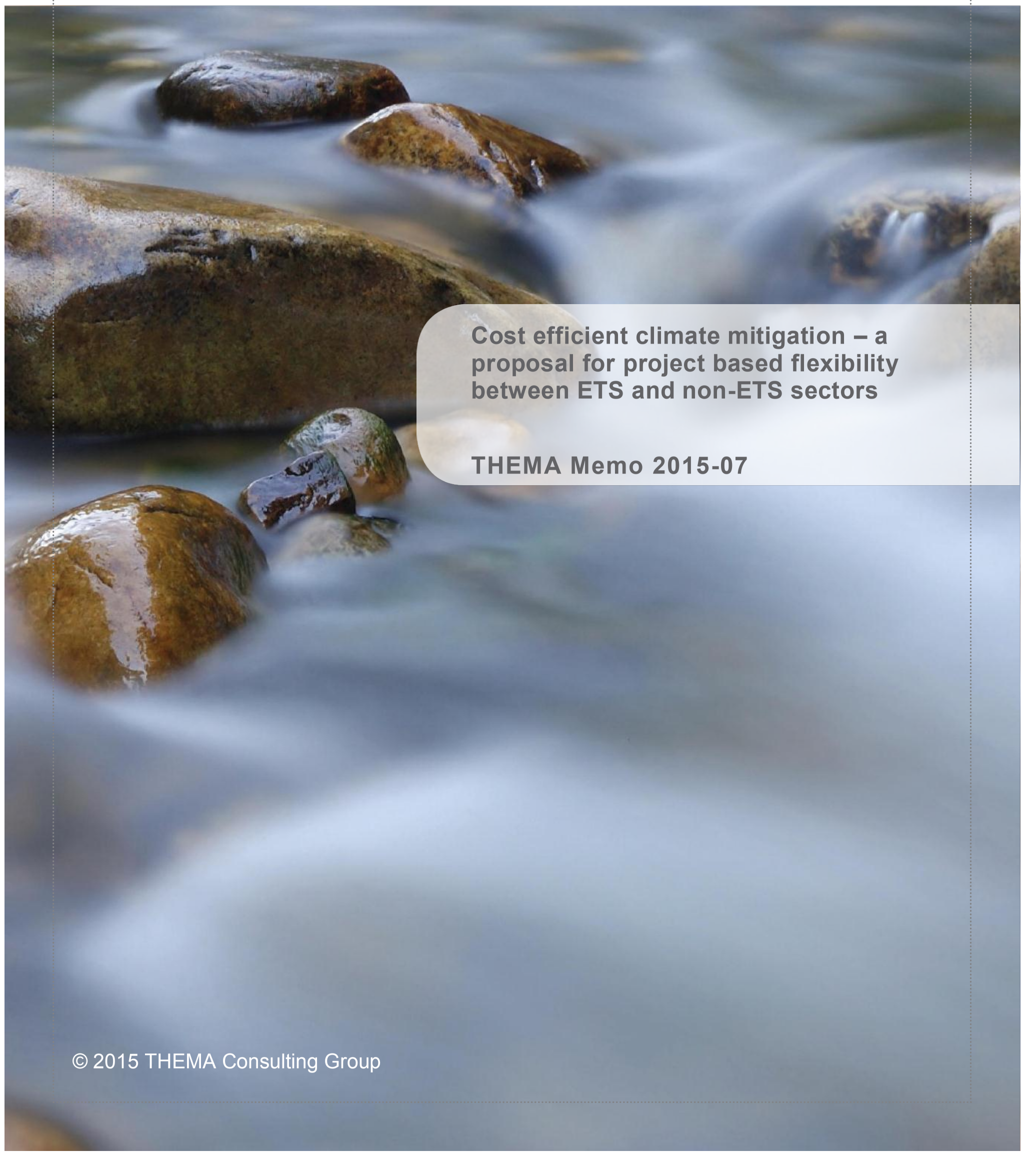

Cost efficient climate mitigation – a proposal for project based flexibility between ETS and non-ETS sectors

THEMA Memo 2015-07

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