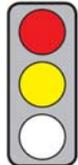


MAIN ISSUES

Objective of the Communication: The Commission presents measures with which the EU should and could achieve its climate protection objectives of 2050.

Parties affected: Overall economy, in particular power producers and energy-intensive sectors.



Pros: An overview of the various possible scenarios for reducing CO₂ in the EU by 2050 could help make the debate on how to set the course of climate policy more objective.

Cons: (1) The assumption that no Member State will ever change its attitude towards the use of nuclear power is unrealistic after Fukushima.

(2) "Setting aside" of emission trading would harm the trust in the reliability of EU climate protection policy, as would a tightening of the emission saving target from 20% to 25%.

(3) If the EU clings on to its unilateral climate protection policy without making efforts for global climate protection, considerable losses in growth and employment can be expected.

CONTENT

Title

Communication COM(2011) 112 of 8 March 2011: **A Roadmap for moving to a competitive low carbon economy in 2050**

Brief Summary

Note: the pages indicated refer to the Communication COM(2011) 112, unless otherwise provided for.

► Background and objectives

- In order to protect the climate, the EU has committed to do the following by 2020 ("20-20-20 Decision"; see [CEP Dossier](#), p. 8, in German only):
 - reduce greenhouse gas emissions by 20%, as compared to 1990,
 - save 20% of the EU energy consumption projected for 2020 through energy efficiency improvements and
 - increase the share in renewable energies in the EU energy use by a minimum of 20%.
- In order to limit global climate change to a global warming of below 2°C, the EU is to move towards a "competitive low carbon economy" in 2050 (p. 3).
- Greenhouse gas emissions in the EU are to be reduced by 80-95% by 2050 compared to 1990.
- These emission reduction targets need be "largely" met inside the EU ("internally") and not through the financing of CO₂ savings in third countries (p. 3 et sqq.).
- Within its Communication the Commission presents a "roadmap for possible action up to 2050" which "could" enable the EU to meet its climate protection target for 2050 (p. 3).
- The Roadmap is based on a comprehensive analysis of alternative scenarios for the period until 2050 [[SEC\(2011\) 288](#)].

► Basic assumptions for the overview of scenarios and roadmap

- The Commission assumes that no Member State will change its principle attitude towards the use of nuclear power [[SEC\(2011\) 288](#), p. 110 and 114].
- According to the Commission, carbon capture and storage (CCS) is a "widely accepted technology" and a lack of public acceptance could delay the introduction of CCS by 10 to 15 years [[SEC\(2011\) 288](#), p. 114 et sqq.].
- The Commission's scenarios include not only scenarios which assume global climate protection efforts but also scenarios which do not. However, the "roadmap" does not clearly address a scenario without any global climate protection efforts. In the event that the "EU's main competitors" (p. 9) do not pursue ambitious climate protection policy, the Commission intends to keep the problem of carbon leakage "under close review" (p. 9).

► Emission reduction "milestones" to 2050

- According to the Commission, the current EU climate protection measures to reduce emissions, improve energy efficiency and further develop renewable energies will presumably lead to emission reductions of 20% by 2020 and of 30% by 2030, as compared to 1990 [p. 5; [SEC\(2011\) 288](#), p. 94].

- The Commission’s aim is to introduce additional measures to improve energy efficiency [cp. COM(2011) 109, see [CEP Policy Brief](#)], in order to:
 - achieve an emission reduction of 25% by 2020 (instead of 20%), as compared to 1990, and
 - save 20% of the energy consumption projected for 2020.
- However, the Commission does not wish to “suggest” setting new 2020 targets (p. 14).
- Non-binding “milestones” serve to measure “whether the EU is on course” for reaching its climate protection target for 2050 (p. 3).
- The most “cost-effective pathway” for reaching the climate protection target for 2050 is the EU internal emission reduction as compared to 1990 [p. 4; Impact Assessment [SEC\(2011\) 288](#), p. 94 et sqq.]. This has the following stages:
 - by 2020 by 25 % (current target: 20%),
 - by 2030 by 40% (current target: 30%),
 - by 2040 by 60%,
 - by 2050 by 80% (current target: 40%).

► Emission reductions of single sectors

The Commission proposes different levels of emission reductions for 2030 to 2050 for the single economic sectors (see [CEP-Table](#)).

– Power generation

- With the help of the following “low carbon technologies”, CO₂ emissions are to be “almost totally” eliminated for power generation (p. 6):
 - renewable energies with a share of 50 to 55% [[SEC\(2011\) 288](#), p. 63],
 - nuclear power and
 - fossil fuels (coal, gas) in combination with carbon capture and storage (CCS; Directive 2009/31/EC; see [CEP-Dossier](#), p. 29 et sqq.).
- In order to ensure that EU emission trading (EU ETS; Directive 2009/29/EC, see [CEP Dossier](#), p. 11 et sqq.) can contribute to a low carbon power generation, it must lead to “sufficiently” high prices for emission rights and be predictable in the long term (p. 6). The Commission will therefore assess whether
 - the agreed linear reduction of the greenhouse gas emissions cap by 1.74 percentage points per year [Art. 9 Directive 2003/87/EC; see [CEP-Dossier](#), p. 12] should be further tightened and if
 - emission allowances to be auctioned during the period 2013 and 2020 should be “set aside”(p. 7 and 11).

– Transport

- Emissions from the transport sector (including aviation, excluding maritime traffic) are to be reduced by 54-67% by 2050.
- Hereby, the Commission promotes technological innovation, in particular in the fields of:
 - vehicle efficiency through new engines, materials and design;
 - new fuels and propulsion systems and
 - better and safer use of networks through information and communication systems.
- In its White Paper on Transport [COM(2011) 144; see [CEP Policy Brief](#)], the Commission presents a “set of measures” to increase the “sustainability of the transport system”.

– Buildings

- Emissions in the building sector are to be reduced by 90% by 2050.
- To this end, it is necessary that from 2021 on, all new buildings are “nearly zero-energy building” with almost zero or very low energy needs which are to be mainly covered by renewable energies [Art. 2 (2) and Art. 9 (1) Directive 2010/31/EU; see [CEP Policy Brief](#)].
- The Commission estimates that by 2020, 200 billion Euros must be invested into the refurbishment of existing building stock.
- In 2011, the Commission intends to publish a Communication on “Sustainable Construction” containing strategies to improve the competitiveness and the environmental and climate performance in the construction sector.

– Industry

- By 2050, emissions in the entire industrial sector should be reduced by 83-87%.
- By 2050 energy-intensive industries could reduce their emissions by at least 50% through the application of “more advanced resource and energy efficient” processes and equipment, increased recycling and abatement technologies for non-CO₂ emissions (e.g. nitrous oxide and methane) (p. 8).
- After 2035, carbon capture and storage is to be deployed “on a broad scale”, notably from industrial processes (e.g. in the cement and steel sector) (p. 9).
 - The Commission estimates that this will require approximately 10 billion Euros.
 - If the EU’s main competitors do not make similar efforts concerning climate protection, the EU will need to consider how to avoid the exodus of energy-intensive industries and their emissions outside the EU (“carbon leakage”; see [CEP Dossier](#), p. 14 et sqq., in German only).
- The Commission wishes to work out specific roadmaps together with the affected sectors.

► Estimated costs of switching to a low carbon economy

- Public and private investments must increase on average by 270 billion Euro per year by 2050.
- Through an increase in energy efficiency and the switch to domestically produced low carbon energy sources, the EU's average fuel costs will be reduced by between 175 billion and 320 billion Euros per year, according to the Commission.

Statement on Subsidiarity by the Commission

The Commission does not address the issue of subsidiarity.

Policy Context

In 2007, the European Council adopted the [“20-20-20 Decision”](#). Moreover, under the strategy “Europe 2020” [COM(2010) 2020; see [CEP Policy Brief](#)] the Commission has proposed a “resource-efficient Europe – flagship initiative” [COM(2011) 21] with long-term plans for transport [COM(2011) 144; see [CEP Policy Brief](#)], energy and climate protection. These targets and plans are gradually being consolidated: on the one hand, through the Commission’s initiatives – in particular for energy technologies [SET Plan COM(2009) 519; see [CEP Policy Brief](#)] – the tightening of greenhouse gas reduction targets [COM(2010) 265; see [CEP Policy Brief](#)], the EU energy strategy 2020 [COM(2010) 639; see [CEP Policy Brief](#)], energy infrastructure [COM(2010) 677; see [CEP Policy Brief](#)], energy efficiency [COM(2011) 109; see [CEP Policy Brief](#)] and renewable energies [COM(2011) 31; see [CEP Policy Brief](#)], and on the other hand, through the adoption of legal acts such as the “Climate Package” [see [CEP Policy Brief](#)] and the Directive on energy efficiency of buildings [2010/31/EU; see [CEP Policy Brief](#)].

Options for Influencing the Political Process

| | |
|------------------------------|--|
| Leading Directorate General: | DG Climate Protection |
| Consultation Procedure: | A consultation procedure is not planned. |

ASSESSMENT

Economic Impact Assessment

Ordoliberal Assessment

By revealing underlying assumptions, **an overview of possible scenarios** for significantly reducing greenhouse gas emissions in the EU by 2050 **could help make the debate on how to set the course of climate policy more objective**. However, in view of the long-term perspective and complexity of the subject – unlike a precise “roadmap” with “milestones” – such an overview of scenarios cannot serve as a reference tool for planning the future of climate policy for more than forty years.

Essential assumptions of the “roadmap” **could soon force a revision: (1) The Commission** assumes that nuclear power and carbon capture and storage (CCS) are “widely accepted technologies” [SEC(2011) 288, p. 114]. It further **assumes that no Member State will change its attitude towards nuclear power** [SEC(2011) 288, p. 110 and 114]. Whether this continues to hold true after the latest reactor accident in Japan remains to be seen. Equally open is the question of whether or not CCS really is “widely accepted”, as this technology has not yet been applied to large-scale industry. **(2) The Commission assumes that global climate protection actions will be taken** (p. 9), which is highly questionable after the failed climate summit in Copenhagen (see [CEP Policy Brief](#)). The question of how carbon leakage could be avoided remains unanswered by the Commission, which merely states that it will “keep it under close review”.

The Commission’s cost estimate that an annual investment of 270 billion Euros to reduce greenhouse gas emissions would be offset by savings in fossil fuel costs of between 175 and 320 billion Euros per year suggests that, despite the fact that the figures vary considerably, there is some knowledge of the long-term price development on international raw material markets. Such price trends, however, are not foreseeable. Therefore, **arguing from an objective point of view, it is impossible to predict the relations between costs and benefits of carbon savings decades in advance**.

Impact on Efficiency and Individual Freedom of Choice

Sector-specific saving targets impede the systematic discovery of the most cost-efficient savings beyond sectoral boundaries. They could result from an extension of emission trading to further sectors, such as transport [COM(2011) 144; see [CEP Policy Brief](#)] and heating of buildings [2010/31/EU; see [CEP Policy Brief](#)]. Instead of prescribing sector-relevant savings politically, policy should limit itself to defining greenhouse gas emission caps for the EU as a whole.

The Commission’s remarks clearly show that – although it does not admit it – the hitherto pursued sector-specific approach and the uncoordinated mix of instruments is not practicable. It fears that – ultimately through the success of dirigiste energy efficiency policy [COM(2011) 109; see [CEP Policy Brief](#)] – the prices for emission trading rights could drop too far to be an efficient price signalling tool. However, their subsequent idea to create scarcity by reducing the amount of emission rights through **“setting aside of certificates** is also

not the right approach to take. Such discretionary interventions **would harm emission trading, as they undermine confidence in the reliability of the system.**

Also, increasing carbon reduction targets for 2020 from 20% to 25% would harm investor confidence in the predictability of EU climate protection policy.

Impact on growth and Employment

Innovations enforced by politics can create growth and employment in certain sectors. However, it cannot be expected that ambitious and dirigiste climate protection policy decisions would increase growth and employment in the European economy as a whole. On the contrary, **if the EU continues to maintain its climate protection policy without any global climate protection efforts, substantial losses in growth and employment can be expected**, because companies will migrate to other countries that are less expensive in terms of climate policy, without generating any climate policy benefits. But also in the event that global climate protection efforts are taken, even the Commission itself estimates that the GDP would drop by 1.2% and employment by 0.4% by 2020 [COM(2010) 86; see [CEP Policy Brief](#)].

Impact on Europe as a Business Location

Without a global commitment to climate protection, unilateral emission reductions by the EU generate unilateral cost increases without any measurable climate protection. This would harm Europe as a business location.

Legal Assessment

Legislative Competence

Unproblematic. The EU may under the scope of environmental policy take measures to protect the climate (Art. 191 et sqq. TFEU). Moreover, it has the power to adopt energy policy measures in order to encourage energy savings and the development of new and renewable energy sources (Art. 194 TFEU).

Subsidiarity

Currently not assessable.

Proportionality

Currently not assessable.

Compatibility with EU Law

Unproblematic.

Compatibility with German Law

Currently not assessable.

Conclusion

An overview of the different possible scenarios for significantly reducing greenhouse gas emissions in the EU by 2050 could help make the debate on how to set the course of climate policy more objective. However, it cannot serve as a precise “roadmap” with “milestones” for planning the future of climate protection policy over the next forty years. The Commission’s assumptions that the Member States’ attitude towards nuclear power will not change in principle and that global climate protection efforts will be taken are extremely questionable. As price developments on international raw material markets are not foreseeable in the long run, one cannot predict decades in advance how the relation between costs and benefits will develop. Both the recalibration of certificates and increasing reduction targets for 2020 from 20% to 25% would harm confidence in the reliability of EU climate protection policy. If the EU continues to cling on to its climate protection policy without making efforts for global climate protection, substantial losses in growth and employment can be expected because companies will migrate to other countries that are less expensive in terms of climate policy.