

Framework opinion on obstacles to implementing economically cost-effective measures to curb greenhouse gas emissions ("no regret" measures)

- Own initiative
- drafted by the Energy and Climate Working Group
- approved by the General Meeting on May 20, 2003 (see Annex 3)
- original language: French

1. Summary:

- [1] A large number of measures to curb greenhouse gas emissions are economically cost-effective but are not being used. These measures, also known as "no regret" measures, could make a significant contribution to Belgium's efforts to achieve its Kyoto objective. Indeed, they could yield savings of 10 million tonnes a year of greenhouse gas emissions in Belgium in the period up to 2010. The idea is to change energy consumption habits, use substitute energy sources, improve energy management and invest in rational use of energy. Many such measures are economically cost-effective since they result in savings on energy bills.
- [2] The FCSD (Federal Council for Sustainable Development) considers it necessary to engage in internal debate on this important issue, the first results of which are incorporated in this framework opinion. Opinions more specific to the different sectors where such measures are relevant will follow.
- [3] This framework opinion analyses in turn the different obstacles to implementing "no regret" measures and presents a number of recommendations for establishing a general framework that could encourage the different players to change their behaviour and/or finance investments.
- [4] The obstacles to implementing "no regret" measures fall into seven categories:
- O.1: cultural and social barriers, and the role of the media, information and advertising
 - O.2: energy prices
 - O.3: the lack of information
 - O.4: the lack of predictability and consistency of energy policy
 - O.5: financial mechanisms inappropriate for investments in rational use of energy (RUE)
 - O.6: lack of expertise and qualified staff
 - O.7: insufficient research into developing such economically cost-effective measures
- [5] To deal with these different obstacles, the FCSD makes seven recommendations aimed at creating a much more favourable framework for implementing "no regret" measures.
- R.1: Encouraging a cultural and social framework favourable to sustainable development
 - R.2. : Developing a price policy favourable to changes in behaviour and investments in RUE
 - R.3. : Improving information on energy services and investments
 - R.4. : Making policy more consistent, foreseeable and better coordinated
 - R.5. : Encouraging investment in RUE and the development of energy services companies

- R.6. : Developing networks of expertise
- R.7. : Stimulating research in RUE and renewable energy

2. Context and objectives of the opinion

2.1. Using every means to achieve the Kyoto objective

- [6] With its ratification of the Kyoto Protocol, Belgium made an undertaking to cut its greenhouse gas emissions by 7.5% for the period up to 2008-2012 compared to 1990. According to its Third National Communication, Belgium's greenhouse gas emissions in 1990 amounted to 142.5 million tonnes (expressed in CO₂ equivalent¹). The Kyoto objective for Belgium for the period 2008-2012 is therefore 131.8 million tonnes. The reference scenario contained in the Third National Communication, however, establishes that Belgium will emit 165.3 million tonnes of greenhouse gases in 2010. This means that to attain the Kyoto objective, greenhouse gas emissions will have to be cut a further 33 million tonnes from the reference scenario in 2010. Indeed, the current evolution of greenhouse gas emissions shows no real departure from earlier trends in the direction of meeting the Kyoto objective. Indeed, emissions rose over 9% between 1990 and 2000.

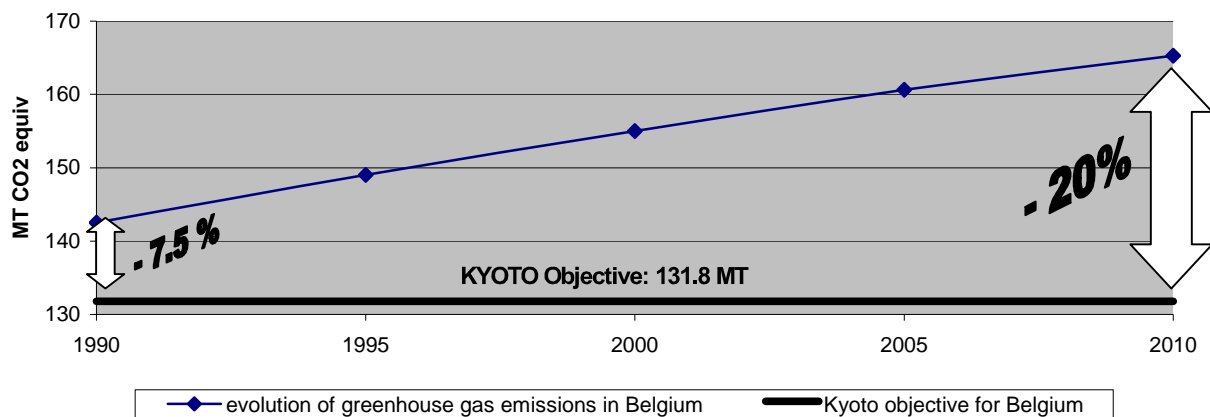


Figure 1: evolution of greenhouse gas emissions in Belgium, compared to its Kyoto objective (projections from 2000, Belgian Third National Communication, page 79, without taking account of emissions from ships and aircraft engaged in international transport, "international bunker fuels")

- [7] To achieve this objective in a spirit of sustainable development, Belgium will have to use all available means, both fiscal and non-fiscal. In previous opinions, the FCSD has stated its views on energy taxation, the flexibility mechanisms of the Kyoto Protocol, emissions trading market in Europe, negotiated agreements and the institutional structures to be implemented in Belgium in the framework of a climate cooperation agreement.

¹ This estimate does not take account of emissions from ships and aircraft engaged in international transport ("international bunker fuels"), which are expected to register considerable growth between 1990 and 2010, rising for Belgium from 18 to 28 million tonnes (expressed in CO₂ equivalent), according to the Third National Communication, page 78.

- [8] This opinion is based on an observation. A number of measures to curb greenhouse gas emissions are not being implemented spontaneously by the different operators even though they are economically cost-effective in the relatively short term. These measures are commonly referred to as "no regret" measures because they will always be advantageous for those implementing them, regardless of developments in the climate change problem in the coming years.
- [9] It is nonetheless important to note that the cost of conversions and of support policies (awareness raising, incentives, monitoring, etc.) aimed at encouraging implementation of these measures is not factored into the studies on which this opinion is based.
- [10] There is also a difference between the perception individual players have of the costs and benefits of their own energy consumption and the overall costs and benefits for society as a whole and for future generations. The FCSD therefore insists on recalling that the energy problem has to be considered from the different angles of sustainable development. There is a need to guarantee that the implementation of economically cost-effective measures has positive repercussions not only on the economy, but also on the state of the environment and access for all citizens to energy services, with particular attention for the poorest.

2.2. What is meant by "no regret" measures?

- [11] To reduce greenhouse gas emissions, operators can choose either to change their consumption habits and/or to invest in technologies which consume less energy and/or emit lower levels of greenhouse gases while providing the same function. When the cost of the investment is lower than the energy consumption savings resulting from the investment over a relatively short reference period, it is referred to as an economically cost-effective or "no regret" measure.

The cost-effectiveness criteria that the different players adopt for their activity must nevertheless be taken into account, i.e. the reference period during which the operator hopes to write off the amount of the investment.

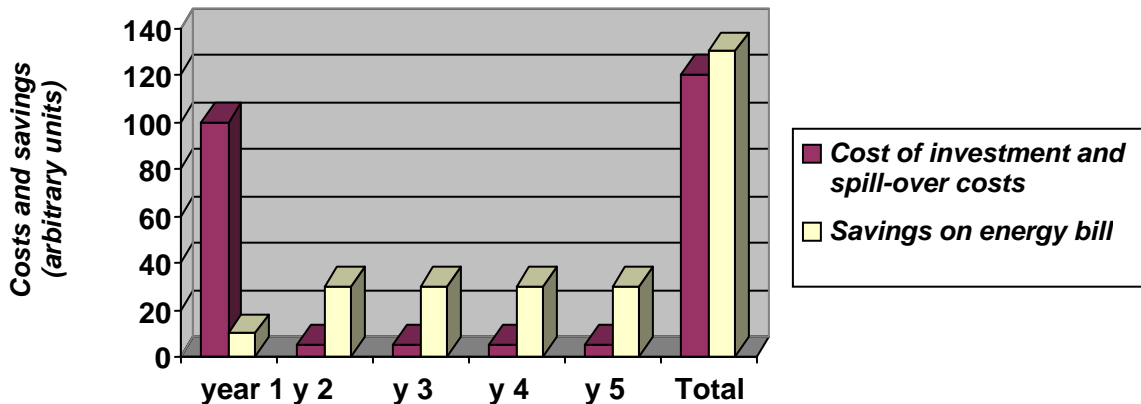


Figure 2: example of evolution of absolute cost and benefits of a "no regret" investment written off over five years

A measure is thus said to be economically cost-effective when, for the reference period, the total cost and the spill-over costs of the investment are equal to or less than the energy bill savings resulting from the investment (see figure 2).

- [12] It should be noted straight away that many measures require little or no material investment, in particular improved management measures and those relating to information, education and public awareness, which can lead to changes of behaviour (in the spirit of Article 6 of the United Nations Framework Convention on Climate Change).

2.3. What potential is there for curbing greenhouse gas emissions?

- [13] According to the conclusions of the study "*Evaluation of the impact of fiscal and non-fiscal measures on CO₂ emissions*", carried out by the Federal Planning Office and ECONOTEC, the implementation of such economically cost-effective measures would yield annual savings of 10 million tonnes² of CO₂³ in Belgium in the period up to 2010 (excluding transport). What is more, implementation of these measures would bring positive effects for the economy (growth in GDP and investments) and for employment⁴. This would enable Belgium to achieve approximately 30% of its Kyoto objective. Half the reduction in greenhouse gas emissions resulting from these measures can be attained through changes in behaviour or better management.



((Table: other measures – Kyoto objective: 33 MT – economically cost-effective measures))

Figure 3: potential of economically cost-effective measures in Belgium, compared to total effort to attain Kyoto objective in 2010 (according to 1)

- [14] For information purposes, the following table shows the potential for reducing the emissions listed in Annex A of the study "*Evaluation of the impact of fiscal and non-fiscal measures on CO₂ emissions*", Federal Planning Office and ECONOTEC. The context here is one of no CO₂ tax.
- [15] The potential of economically cost-effective measures for reducing emissions in the transport sector is not considered in this study. The potential in the transport sector of economically cost-effective measures is in all likelihood far from negligible (e.g. for Belgium, see the VITO⁵ study and for the Netherlands the CEA study⁶). The FCSD will examine this question in greater detail in a subsequent opinion.

² "Evaluation of the impact of fiscal and non-fiscal measures on CO₂ emissions", Federal Planning Office and ECONOTEC, Working Paper 9-01, December 2001, page 37

³ Most studies on economically cost-effective measures focus on CO₂ emissions.

⁴ "Evaluation of the impact of fiscal and non-fiscal measures on CO₂ emissions", Federal Planning Office and ECONOTEC, Working Paper 9-01, December 2001, page 39

⁵ "Maatregelen in de transportsector voor de vermindering van CO₂ en troposferische ozon", Vito, studie uitgevoerd in opdracht van DWTC, Eindrapport, August 2001.

⁶ CEA, Communicatie en advies over Energie en Milieu

Sector	Potential for curbing CO ₂ emissions (kt) to 2010	Total savings in millions of euros 2000	Average total savings in euros 2000 per tonne of CO ₂ saved
Energy production	731	15.0	21
Renewable energy ⁷	491	39.1	77
Industry	5827	248.5	43
Households	1890	129.6	69
Tertiary	1069	66.6	62
Agriculture	11	0.2	18
Total	10019	498.9	50 (average)

Table based on data from Annex A of the study "Evaluation of the impact of fiscal and non-fiscal measures on CO₂ emissions", Federal Planning Office and ECONOTEC, Working Paper 9-01, December 2001

⁷ including green certificates