

Evaluation of non-CO₂-greenhouse gas emission reductions in the Netherlands in the period 1990–2003

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Abstract

In the Netherlands, several measures were implemented to curb the emissions of non-CO₂ greenhouse (NCG) gases in the period 1990–2003. Without the implementation of these reduction measures, emissions of NCG gases in 2003 would have been 11 million tonnes of CO₂-eq. higher. Policies which were already in place before specific NCG gas policies were introduced, are predominantly responsible for the reductions achieved so far. Roughly 80% of the achieved reductions in the Netherlands can be attributed to these policies, and 20% to a specific Dutch Reduction Plan on NCG gases that was introduced in 2000. Our analysis shows that the policies in place in the period 1990–2003 were very economical from the government point of view: almost half of the emission reductions can be achieved against costs below 5 euro per tonne CO₂-eq. Whereas, for example, the cost-effectiveness of government CO₂ reduction programmes in the housing sector ranged from 4 to over 300 euro per tonne of CO₂-eq. in the period 1995–2002.

Keywords: *Costs, cost-effectiveness, policy evaluation, reductions, policies, regulations*

1. Introduction

The Dutch government has formulated ambitious targets with respect to the reduction of NCG gases (VROM 1999). Amongst others, the Dutch government introduced the Reduction Programme on non-CO₂ greenhouse gases (ROB) by the end of 1999, which aims to promote and facilitate the implementation of NCG gas emission reduction measures (SenterNovem 2004).

This paper provides an overview of the reduction measures that were implemented in the Netherlands to reduce the emissions of NCG gases in the period 1990–2003. The paper starts with mapping out the methodology to determine the reductions that can be attributed to the implemented reduction measures. Next an overview is provided of the achieved reductions, investment costs and government expenditure related to the reduction of NCG gas emissions in the Netherlands over the period 1990–2003. Finally, an overview will be given on the role of government policies in reducing the emissions of NCG gases.

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