

# **Assessing the Potential Impact of the CO<sub>2</sub> Performance Ladder on CO<sub>2</sub> Emission Reduction**

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## **The CO<sub>2</sub> Performance Ladder; a New Green Procurement Scheme**

The aim of this research is to assess the potential impact of the CO<sub>2</sub> Performance Ladder on CO<sub>2</sub> emission reduction. The CO<sub>2</sub> Performance Ladder is a new green procurement scheme that has been adopted by several public authorities in the Netherlands; it is a staged certification scheme for energy and CO<sub>2</sub> management. The achieved certification level gives companies a certain competitive advantage in contract awarding procedures.

## **Participating Companies**

The scheme has been widely adopted by companies in the construction industry. Other types of companies in the supply chain of the commissioning parties, such as consultancy companies, also participate. Currently, more than 190 companies participate in the scheme.

## **CO<sub>2</sub> Emission from Companies in the CO<sub>2</sub> Performance Ladder**

The total CO<sub>2</sub> emissions reported in 2010 from 171 companies in the scheme amount to 1.7 Mtonnes CO<sub>2</sub> and are broken down into scope 1 (71%), scope 2 (15%) and scope 3 emissions (14%). Around 20% of the certificate holders are responsible for almost 80% of the total emissions reported. The aggregate CO<sub>2</sub> emissions covered by the scheme correspond to almost 1% of national greenhouse gas emissions in the Netherlands. Since the introduction of the scheme the total CO<sub>2</sub> emissions have decreased substantially. Nevertheless, these emission reductions should be interpreted with caution since emission reductions are dominated by a few companies and are affected to a large extent by economic activity.

## **Companies Set Various Types of Targets With Varying Ambition Levels**

Companies participating in the scheme have set different types of CO<sub>2</sub> emission reduction targets, such as a) volume targets for CO<sub>2</sub> emission reduction, b) CO<sub>2</sub> emission reduction targets measured against full time equivalents (FTE), c) CO<sub>2</sub> emission reduction targets measured against € turnover or other type of targets. The ambition level of these targets and the time frame within which the targets must be achieved may vary considerably among the firms.

## **The Potential Impact on CO<sub>2</sub> Emission Reduction**

The projected impact of these targets on CO<sub>2</sub> emissions is in the range of a 0.5% - 1.3% absolute emission reduction per year, with a most likely value of 1.1%. CO<sub>2</sub> emissions must be reduced by at least 1.4% per year from 2010 onwards to reach the CO<sub>2</sub> emission ceiling for all non-ETS sectors, including the construction industry, in 2020. The CO<sub>2</sub> Performance Ladder can therefore make a substantial contribution to achieving the CO<sub>2</sub> emission reductions for non-ETS sectors in the Netherlands up to 2020.



# Assessing the potential impact of the CO<sub>2</sub> Performance Ladder on CO<sub>2</sub> emission reduction

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## Introduction

- The CO<sub>2</sub> Performance Ladder is a staged certification scheme that is used in public procurement procedures
- Introduced by ProRail in 2009 and now managed by the Independent Foundation for Climate Friendly Procurement and Business (SKAO)
- The objective of this research is to assess the potential impact of the CO<sub>2</sub> PL on CO<sub>2</sub> emission reduction

## How does the CO<sub>2</sub> Performance Ladder work?

- The CO<sub>2</sub>PL awards energy efficient behaviour of companies participating in tendering procedures

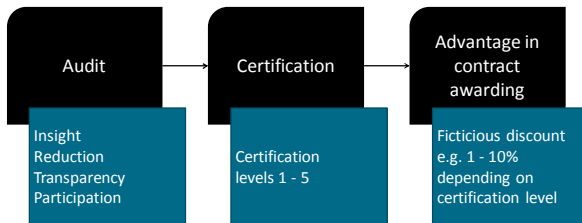


Figure 1: Rationale of the CO<sub>2</sub>PL

## Participants

- CO<sub>2</sub>PL has more than 200 certificate holders; growth rate is 20 new certificates per quarter
- Majority of the firms belong to construction industry (60%) and consultancy sector (13%)
- Middle sized companies certified at level 3 are the most dominant segment (20%)

## Reported CO<sub>2</sub> emissions and reductions

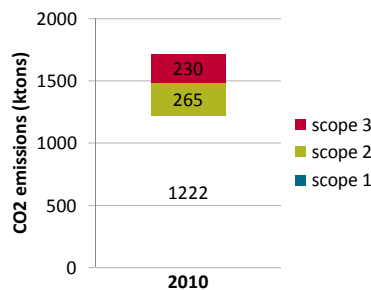


Figure 2: Reported CO<sub>2</sub> emissions under CO<sub>2</sub>PL in 2010 in scope 1, 2 and 3

- 170 firms emit more than 1.7 Mton CO<sub>2</sub>
- 20% of the firms cover 80% of the emissions
- More than half of the CO<sub>2</sub> emissions in construction industry sector (scope 1 and 2) are covered

## Key findings

- CO<sub>2</sub>PL covers around 1% of the national CO<sub>2</sub> emissions in the Netherlands
- The potential impact on CO<sub>2</sub> emission reduction is in the range of 0.5% – 1.3%/a, with a most likely value of 1.1%/a
- The CO<sub>2</sub>PL can make a substantial contribution to reaching CO<sub>2</sub> emission targets

- CO<sub>2</sub> emissions have decreased by 7% in one year
- Emission reductions in scope 1 and 3 are dominated by individual firms

## Various target types...

- Firms must formulate SMART quantitative reduction targets

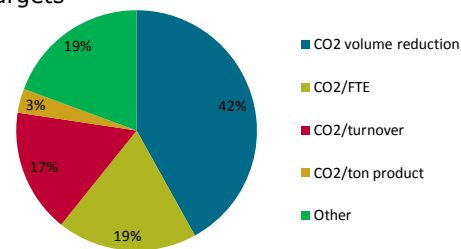


Figure 3: Various target types used by firms in the CO<sub>2</sub>PL

## ... with varying ambition levels

- Targets must be significant and comparable

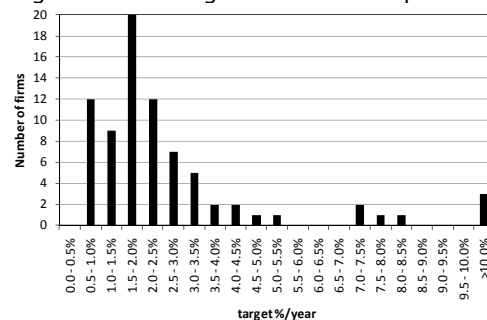


Figure 4: Histogram of volume targets for CO<sub>2</sub> emission reduction

## The potential impact of the CO<sub>2</sub>PL

target type	ambition level	projected absolute impact of the target
CO <sub>2</sub>	-2,1%	-2,1%
		BAU <sup>1</sup>
CO <sub>2</sub> /hour	-2,3%	-1,7%
		BAU <sup>3</sup>
CO <sub>2</sub> /€ turnover	-1,9%	1,1%
total		-1,1%

Table 1: Ambition level and projected absolute impact of various target types per year

- CO<sub>2</sub> emissions must be reduced by at least 1.4%/a from 2010 onwards to reach the CO<sub>2</sub> emission ceiling for all non-ETS sectors in 2020 in the Netherlands