

Carbon Labelling in the Freight Sector



Carbon Labelling Project

**Deliverable 10: Working paper – How to expand
carbon labelling initiatives in the freight sector**

- September 2008 -

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1 Introduction

This report “Carbon Labelling in the Freight Sector” was prepared in the framework of the Carbon Labelling project which is supported by the European Commission in the Intelligent Energy Programme.

The Carbon Labelling project involves participation from UK, Germany, Netherlands, and Malta and a group of companies, governments and non profit organizations interested in developing carbon labelling systems for fuels, lubricants, shipping and various transport sectors. The overall objective of the project is to develop a strong set of market incentives that will drive demand for lower carbon fuels, lubricants and shipping as a result of shifts in consumer and corporate behaviour and preferences for purchase of low carbon goods with a minimal shipping impact.

The objective of this working paper is to provide organisations and persons that are interested in carbon labelling in the freight sector with information and suggestions, allowing them to decide whether or not to start a similar initiative. This working document gives some detailing results of the pilot in the horticultural sector (freight companies) in the Netherlands. It also gives conclusions and some suggestions on the conditions under which the carbon labelling program can be expanded.

2 Two examples of carbon labelling initiatives

This chapter contains examples of two carbon labelling initiatives, the first one in Germany by the fuel retailer Q1, the second one in The Netherlands by a consortium of partners around a horticultural production area and auction.

Information on other carbon labelling and shipping initiatives (partly outside the freight sector and also outside the transportation sector) can be found in the report “Low Carbon Shipping, Transport & Market Incentive Programs”¹. In particular, this report gives details on the EPA Smart Way Transport Partnership and on the UK Carbon Trust program.

2.1 Carbon labels at Q1 stations – Osnabrück, Germany

Since July 2007, fuel retailer Q1 is using carbon labels (CO₂Star labels) at their B100 filling stations in Osnabrück. The label promotes CO₂ reductions of 60% for using biodiesel instead of fossil diesel. At the participating filling stations in Osnabrück, information brochures and CO₂Star petrol cap stickers are available for free.

As part of the Carbon Labelling project², surveys were held under consumers and retailers of the Osnabrück B100 filling stations. One important result was that price is the main motive for consumers to buy biodiesel instead of fossil diesel.

¹: Deliverable D8 of the Carbon Labelling project. The full title of D8 is “Report on the Evaluating of the USEPA Smart Way Transport Program and how it could be improved if implemented in the EU”

²: Project number EIE/06/015/SI2.442654, supported by the EU programme Intelligent Energy Europe

2.2 Carbon Labels in the freight sector – Naaldwijk, The Netherlands

2.2.1 Outline of pilot project

Since August 2008, 22 trucks equipped to transport horticultural products use B30 (a blend of 30% biodiesel and 70% mineral diesel). Besides, the trucks have carbon label to show customers and consumers that their products are transported by a 'low carbon' freight carrier.

It is the first B30 biodiesel pump for the horticultural sector. The refuelling station is located in Naaldwijk (The Netherlands) close to the country's main horticultural production areas and auctions. The B30 filling station in Naaldwijk is implemented in cooperation with the 'Schoon geproduceerd, Schoon vervoerd' ('clean production, clean transport') project in the Netherlands.

2.2.2 Project consortium

'Schoon geproduceerd, schoon vervoerd' is an initiative of the Productschap Tuinbouw, a consortium of several leading Dutch parties that grow, trade and distribute flowers, plants, vegetables, and fruits. Productschap Tuinbouw aims to reduce CO₂ emissions - not only those related to growing crops, but also emissions further along the transport chain.

The pilot project is realised by the Productschap Tuinbouw, Greenport organisations and Rabobank Nederland, project management by van de Geijn Partners in cooperation with BP, Volvo Truck Nederland and WD-Trucks as suppliers, Fides Holland, M&S Flowers, M. van der Helm, Nic. Sosef, Flowers4all and Wematrans as participating transport organisations, and the EU-funded Carbon Labelling project.



2.2.3 Development of the project

There are two parts to the project: (1) the pilot of using B30 in the horticultural sector and (2) the promotion of the green fuel using carbon labels. In this section the history of both parts will be described briefly.

(1) Pilot of using B30 in the horticultural sector

The pilot project has a long history. The initiative was first mentioned in June 2005 as part of the Flowers & Food Innovation Agenda which was offered to the Dutch Minister of Agriculture, Mr. C. Veerman. In September 2005, Van de Geijn Partners was asked to initiate and manage 'Schoon Vervoerd' from idea to market introduction.

After a preliminary feasibility survey in the second half of 2005, 'Schoon Vervoerd' was started as a project in January 2006. The project was funded by sector organisations and Rabobank Nederland.

The first idea was to involve small organisations that aimed to bring B100 onto the Dutch market of transportation fuels, without dependency on subsidies, and not waiting for the movement of large oil companies. It turned out that the small organisations do not own strategic locations for filling stations and therefore depend on the cooperation of established

partners. After the regulation on the Dutch biofuel mandate had been published, the Steering Committee decided in September 2006 to try to involve established oil companies in the project to create 'islands of B100'. The Steering Committee gave priority to Shell, being the market leader for biodiesel. Negotiations did not succeed due to Shell's strategic preference for GTL and second generation biofuels. Also parallel talks with Total did not succeed due to changes in Total's commercial policies in summer 2007. In the same timeframe negotiations started with BP and Dicommerce to introduce B100 in Naaldwijk for the existing BP filling station at the Flora Holland site. These proved to be successful. Dicommerce is a new entrant, participating in production of jatropha in Mozambique with SAFE, South African Fruit Export.

In August 2007, BP proposed B100 for the discounted price to transport companies. The only remaining problem to be solved was the cost of the 7% lower performance of biofuel and additional maintenance (changing motor oil).

In December 2007, Productschap Tuinbouw decided to compensate the remaining additional costs for lower fuel performance and extra maintenance for the pilot project in Naaldwijk. At this point in time everything was ready to introduce B100 on a cost neutral basis for transport companies.

Then, outside forces started to play a role – the culmination of negative publicity due to the food versus fuel debate and the crisis in the German biofuel industry due to the gradual introduction of tax and the obligation to blend biofuels with fossil diesel. As a result, transport companies hesitated to join the project and later on rejected to participate, being afraid of negative publicity and uncertainties on the longer term like in Germany. They desired full co-operation of truck manufacturers to ensure long term perspectives.

As a result, BP critically re-considered the set-up of the project, both for commercial reasons and for reasons of vulnerability for negative publicity instead of adding to the green image. In March 2008, BP decided to leave the B100 strategy and choose B30 (30% biodiesel), at the same time downscaling the introduction in Naaldwijk. Furthermore, BP decided to co-operate with VOLVO Trucks Nederland and re-defined the goals of the project, gathering technical data and experience with high blends of biofuel and avoiding other publicity. From an open image building initiative 'Schoon Vervoerd' was transformed to a closed technical experiment, under the pressure of the public debate.

In August 2008, a tank was installed for B30 and the first trucks started using B30, offered for the normal discounted price to transport companies. Maintenance, warranties and monitoring were offered by VOLVO. Compensation of remaining extra costs for fuel and maintenance were offered by Productschap Tuinbouw.



(2) Promotion of green fuel using carbon labels

In spring 2006, there was a first contact from SenterNovem for 'Schoon Vervoerd' to serve as a pilot in Holland for the European project Carbon Labelling. This was formalised in September 2007.

This part of the project then had to wait for the B100 (later B30) pilot. In the contracts between BP, Volvo and the transport companies it is arranged that the participating trucks are equipped with Carbon Labels. The labels were



put on the trucks in August 2008. In order to be able to report on this project in the final report of the Carbon Labelling project, a survey was held under the transport organisations and the truck drivers in September 2008.

The carbon labels are a combination of the CO₂-Star logo and the 'Schoon geproduceerd, Schoon vervoerd' logo. The labels increase the visibility of this initiative.

2.2.4 Results

Technically, first results of the project are successful as drivers and employers report that the kind of fuel makes no difference in engine-performance, and also the increase in fuel consumption seems to be limited. Figures are preliminarily based on (qualitative) interviews with all transport companies and monitoring in the short period of measuring (2 weeks) on 2 trucks.

BP estimates the reduction of CO₂ emissions during the pilot with 1.5 million litres of B30 at 650 tons CO₂. This reduction is preliminary and based on BP guaranteed supply of B30. The realised sales from week 36 to week 39 are 11,000 litres of B30. Predicted weekly sales after the completion of the start up will be about 15,000 litres.

From a communication point of view, the transport companies report that their motivation is to contribute to a better environment. They use driving on B30 and with it sustainability, responsible entrepreneurship and an innovative image, as selling arguments to their customers.

3 Lessons learned

From the preparation and first results of the pilot with carbon labels in the freight sector, the following lessons have been learned:

3.1 General lessons

The setting up of a B30 pilot in The Netherlands was far from straightforward. It is concluded that in countries where there is no price incentive (tax incentives, subsidies) on the use of high-blend biofuel (such as B30 or B100), pilots are almost per definition complex as there are no direct operational benefits for participants.

As a result, pilot in such countries require detailed contracts between participants reflecting their specific interests in the results (image, gathering data, license to produce, innovation, market introduction and the like) as well as their contribution to the project.

As there are no direct commercial incentives, progress depends on immaterial benefits for the participants and for the initiative as a whole, which makes the co-operation vulnerable to changes in the context (public debate, commercial policies). A changing context has a large effect on the project, as was the case in the Dutch pilot.

Projects of this kind can only succeed due to persistency, dedication and sufficient time and patience and flexibility to changing outside forces.

Project management must be equipped to cope with permanently changing circumstances and external conditions (public debate). Therefore it takes much time to realise the start of the project with substantial investment in process management and relatively low investment in equipment.

Transport companies are willing to use B30 as a contribution to sustainability and the goals of their customers. A strict condition is that the costs for transportation (fuel, maintenance) do not increase. This was concluded in the preparation phase of the project in The Netherlands. The conclusion that the cost factor is dominant was also one of the main conclusions drawn from the Q1 consumer survey from the pilot in Germany.

3.2 Lessons with regard to carbon labels

There is only little feedback yet from transport companies or consumers on their perception of the carbon labels. This is caused by the late start (August 2008) of the pilot with B30 and labels. Preliminary it can be concluded that the motivation of the transport companies to participate in the pilot is to use their participation in the project and their use of B30 as a selling point in their business to business communication. More feedback from the transport companies and customers on the labels will be available early 2009, after the official launch of the pilot (to be expected end of 2008).

4 Recommendations for expanding carbon labelling initiatives in the freight sector

4.1 Recommendations for the freight sector

The current pilot in the Netherlands was organised top-down: a sector organisation (Productschap Tuinbouw) decided to start a biodiesel project with freight companies to contribute to sustainability goals of the sector and to have an additional and unique selling point for the companies itself. The transporters did not get involved up to the moment that the project was set-up and the decision to use carbon labels had already been taken. The transporters were never asked if the labels would be effective to draw the attention of general public and consumers of the transport organisations.

Our recommendation is to use a bottom-up approach in future carbon labelling initiatives in the freight sector. It should be clear that the transporting companies feel that there is a need to use labels (for instance underlining its message to its costumers or showing the initiative to the general public).

4.2 Recommendations for other organisations involved

From the Dutch example it is clear that it takes a huge effort to start a high-blend biofuel project in a country without tax incentives for these fuels, the only incentive for the introduction of biofuels being an obliged market share (2% by energy in 2007, 3.25% in 2008). As the implementation of this project alone is highly complex, the decision to add the introduction of carbon labels made it even more complex.

A recommendation, therefore, is that projects to reduce the carbon emissions (in transport as well as elsewhere) should be realised first before a decision is taken to introduce carbon labels. Once the project itself has been set up, the participants (in the Dutch example the freight companies in the horticultural sector) can much better assess the value of a carbon label. If necessary, the attitude of the target group towards the product or service can be assessed in a survey before a decision to introduce a carbon label is taken. In this way the participants can have a better understanding of the potential added value of a label before deciding on its introduction.

A carbon label is an attractive tool for project owners, as it makes visible the normally invisible advantage of a less carbon intense product. This is very appealing for the project owner: show the world that (for instance) a transportation fuel completely or partly consists of biofuel and emits less greenhouse gases than the fossil equivalent. However, currently, detailed consumer surveys on the effectiveness of carbon label in the freight sector are lacking. A final recommendation from the Carbon Labelling Project would therefore be to perform consumer surveys in the freight sector.