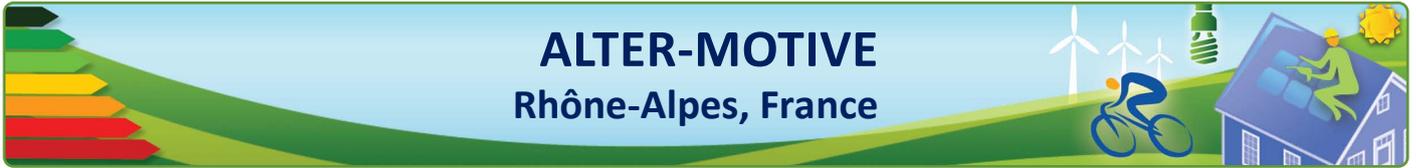


ALTER-MOTIVE Rhône-Alpes, France



Deriving effective least-cost policy strategies for alternative automotive concepts and alternative fuels

ALTER-MOTIVE – Deriving effective least-cost policy strategies for alternative automotive concepts and alternative fuels
<http://www.alter-motive.org/>

Background and objectives

The Grand Lyon Urban Community has 1,200,000 inhabitants.

This community was created to coordinate inter-city cooperation. It consists of 55 towns which manage the community affairs. It is responsible for the planning and support of the economic development in the Lyon metropolitan area. It is also responsible for basic public services like transportation, roads, drinking water, sanitation, household waste collection and treatment.

To reduce the greenhouse gas emissions the authority presented its climate protection strategy plan (Plan Climat Grand Lyon). The use of B30 for refuse collection and street cleaning vehicles is part of this plan.

Because of legal restrictions the replacement of Diesel by B30 was possible only because Grand Lyon used it in their own fleet and they had their own stationary fuel tanks.

The use of B30 (also called Diester in France) is reserved for fleets (either public or private) that have their own fuel logistics (fuel tanks). This implies that the vehicles always have to return to the same places, to be refueled.

The main objective of this project was to reduce local and global pollution.

Grand Lyon, Rhône-Alpes, France

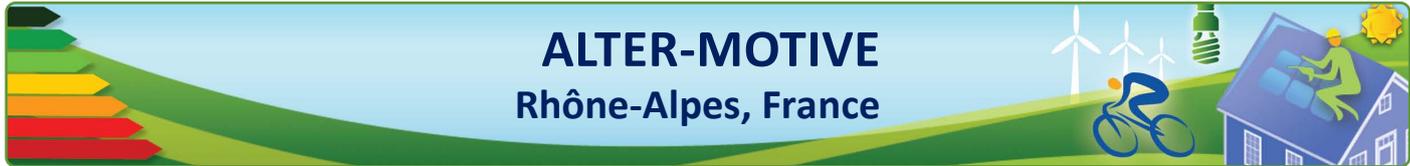


Implementation

The Grand Lyon owns two tanks in two different places within the metropolitan area (80 m³ and 20 m³).

The consumption level is high enough to allow the delivery of fuel (a delivery of 25 m³ is done every week, with complementary delivery of 25 m³ every three weeks). This frequent delivery would not have been possible for smaller quantities.

The UGAP (a public command association of local authorities on a national level) offered to deliver the fuel on behalf of the local authorities, including the Grand Lyon.



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Conclusion

2 million litres of B30 are used each year, and no problem has been reported for the vehicles which are ranging between Euro II and Euro V emission standards. No modification has been necessary (only a cleaning of the tanks). Truck manufacturers agreed on the use of B30 in their vehicles, except for one (B30 has been used anyway in their trucks without any problem).

The oil filters were changed at the beginning of the experiment. With the last generation of trucks, pre-filters for fuel decantation have been installed.

There is a reduction of the CO emission by 12-15 % and by 15-20 % for particles (PM). For greenhouse gases, the CO₂ equivalents are reduced by 20 % avoiding 1,000 tons CO₂ per year. The consumption of B30 is quite the same than Diesel (+ 1 %). A reported side-effect was a decrease of fuel theft in the vehicles.

The cost of B30 per liter is about 2 % higher than diesel. This replacement costs about 40 € per ton of CO₂ saved. It was important having the tendering done by UGAP because this avoided the local authority to be charged with it.

Evaluation

The implementation of B30 has been very positive: it needed only small investments, and there were no changes for the drivers.

Participation by Rhônalénergie-environnement in the Alter-Motive (www.alter-motive.org) project was instrumental in developing the policy and strategy for implementation of this action in Grand Lyon.

The core objective of the Alter-Motive project was to derive an action plan for implementing effective least-cost policy strategies (for the EU, specific countries & regions) to achieve a significant increase in innovative alternative fuels (AF) and corresponding alternative more efficient automotive technologies (AAMT) to head towards a sustainable individual & public transport system. AF comprise bioethanol, biodiesel, synthetic fuels, biogas, hydrogen, renewable electricity, LPG & natural gas, whilst AAMT include biofuel, fuel cell & electric vehicles and various types of hybrid systems as well as systems based on natural or biogas.

Find out more about this and other Sustainable Energy Actions, online at: www.regions202020.eu/gp

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Further Information

Websites:
www.grandlyon.com/Le-Plan-Climat.3139.0.html