Greening the Company's Fleet

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***Abstract*—Care for environment is becoming one of the most important issues of our society. We are witnessing high levels of environment pollution and related climate changes as a possible result of released carbon emissions. Transport is one of the major greenhouse gas emitters. Greenhouse gas emissions share resulting from transport in Slovenia was 30 % of total emissions. Companies specialized in transport are challenged with seeking solutions how to reduce the pollution from their fleets on one side and reducing costs on the other side especially focusing on increasing the level of their efficiency. Greening the companies fleets is in rise all over the world. Beside environmental care and reducing the costs the carbon footprint is becoming more and more important for company's image. Cities in Slovenia are no exception when it comes to pollution. This paper is based on a research study of company Avtosteklo d.o.o. Their primary activity is replacement of windscreens on vehicles. Replacement is often done at customers' homes or at their work places. Therefore company owns a fleet of 24 vehicles. Because of the nature of their work the amount of driven kilometers is high, and consequently much more carbon dioxide is released in to the air. The company's fleet is arranged in 5 branches in different cities in Slovenia. In our research we have done a comprehensive study of the current fleet vehicles, their duty cycles, work applications and operations. Calculations on fuel costs and released carbon dioxide were examined and cross-compared. Results showed an impressive 78,9 tons of carbon dioxide released in one month. Main goal of this paper is therefore to present the positive effects of replacement of conventional vehicles with alternative ones. After reviewing and analyzing several possibilities we have suggested replacement of conventional cars with electric ones as a long term solution. Beside that we have suggested few short term solutions, having in mind the costs of each investment. Since the electric cars don't release carbon dioxide in the time of use, this was seen as the best possibility to reduce their carbon footprint. In order to identify the best solutions we have analyzed also possibilities of replacement of companies fleet with vehicles on compressed natural gas too, however environmental and cost effects are less visible in this case. Substitution of current vehicle fleet with only electric cars means 100 % reduction of pollution. The study also showed significant impacts on reduction of fuel costs and vehicles maintaining.**

***Key words*—alternative fuel vehicles, emissions, green fleet, sustainable transport.**

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