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Renewal of the Fleet of City Buses: Reduction of Energy Consumption and Environmental Impacts

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Abstract

This article describes the current stage of studies developed by the Environment Committee of the National Association of Public Transportation — ANTP, whose goal is to estimate the magnitude of the impacts, in terms of reduced emissions of local pollutants and greenhouse gas emissions, resulting from the replacement of the current urban fleet of conventional diesel buses in Brazilian cities for less polluting vehicles and lower energy consumption, represented by technological and energy alternatives available commercially. In addition, shows an application of the methodology developed by the Commission to simulate a replacement program of urban bus fleet of the city of São Paulo. The results of this simulation show that the replacement of the fleet by less polluting vehicles and lower energy consumption would reduce in 73% the emission of CO, 90% of HC, 71% of NOx, 92% of MP and in 26% of CO2 emissions.

Keywords: *city bus; vehicular technology; environmental impact; public transport; transportation planning*