

Sirinthip Keawpresit 2009: Factors Affecting Using of Natural Gas for Vehicles in Thailand.
Master of Economics, Major Field: Economics, Department of Economics. Thesis Advisor:
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This thesis aims firstly to examine the Royal Thai Government measures and policy on the promotion of Natural Gas for Vehicles (NGVs) utilization. The research in addition aims to analyze social factors and general opinions of represented motor vehicle users toward the NGVs utilization. For the first purpose of the thesis, the study focused on represented (1) owners of private car (not exceeding 7 seats), (2) taxi, and (3) NGVs installation garages. For the other purpose, the study targeted on represented (1) owners of private motor vehicle, and (2) taxi drivers. This thesis is a quantitative based research. The information was primarily gathered from one hundred questionnaires. The statistic is measured on percentage, mean, and standard deviation. The research also includes deep interviews of three NGVs gas stations. The interviews were conducted in order to analyze social factors in relation to the NGVs utilization in Thailand. This study uses both monthly secondary data, since January 2003 to December 2007, totally 48 months, by regression equation method and unit root to find out the relation of variables. The resultant value will be used to forecast and analyze the direction of NGVs utilization of Thailand.

The research found that the targeted owners of private car (not exceeding 7 seats) and taxi were benefited from the government measures and policy; i.e. fixed retail price of NGVs gas, excise tax reduction for Original Equipment Manufacturer (OEM) vehicle which complete the NGVs installation, tax reduction for annual car registration extending, and customs duty reduction for the importation of NGVs gas tanks and their related equipments. Next, the research found that the most important factor, based on the opinions of the specific targeted groups that turned owners of private car (not exceeding 7 seats) and taxi to use NGVs, was the difference in prices between gasoline and NGVs. The research also found that the most important government policy that turned private car (not exceeding 7 seats) owners and taxi drivers to use NGVs was the free NGVs installation program for taxis by the PTT Public Company Limited in conjunction with the Ministry of Energy. Furthermore, the research found that the NGVs gas station has recently gained more benefit after 10 – 15 percent of motor vehicles have completed the installation. In addition, the factors that affect to NGVs utilization are price of benzene 91 and average salary per head. There is a positive relation, statistical confidence at 95 percent. Thus, the government should develop a future plan for supply sufficient NGVs in Thailand.

Student's signature

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