Domestic Electricity Consumption as an Attribute for Travel Distance Estimates

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Abstract: The travel distances for different purpose by urban users are not only decided by the land use activity supply set, but significantly depend on the income level of such users. This means, the urban traveller select the destination for different purposes with available activity supply set and is controlled by the spending capacity of the user with available transport supply set. The vehicle ownership and the mode of ravel are also a deciding factor for determination of travel distances of urban users. The gender difference also has some effect of control for determination of travel distance for various purposes.

This paper has attempted to relate the domestic electricity consumption of household groups which are categorised based on the physical and utility properties, and the travel distance based on the travel mode and purpose. The results can be used in practice for economic analysis of transport sector benefit calculations, estimation of fuel and vehicle operating costs, calculating amount of pollutant emissions by vehicles etc. Also this concept can be used for comparison of above attributes with other cities in the world.

Keywords: Travel Distance, Electricity Consumption Units, Suburban Area, Cost Effectiveness