Electric Vehicles - Are They Efficient ?

The greatest threat to global security and sustainability is global warming — a result of our over-dependence on fossil fuels. To reduce the negative impacts of automation of industry on the environment and decrease in the green house gas emissions, we need to take personal responsibility and make gradual but subtle changes in our life style. Selecting the right personal transport is just one area. This has underlined the need for supportable transport with an objective to 'save the planet'.

Supportable transport is not possible unless we start accepting ecologically responsible vehicles. With a variety of zero emission vehicle with us now, this would not be difficult. Eco-friendly vehicles are designed considering the benefit of the user, society and the environment. Automobiles are now responsible for 20 per cent of global energy consumption and their effluents pollute the environment, says *ecoindia.com*, admitting that it is the most popular technology ever developed.

Electric vehicles (EVs) that are far more efficient than internal combustion engines (ICEs) are a promise to reduce the negative impacts of automobiles on the environment. The EVs today are converted from ICEs. Improved performance and reduced cost of EVs would surely make them more consumer accepted and increase their sustainability in the long run. "In addition to appearance, price and performance, consumers in the 21st century should also regard low emissions, low noise and low fuel consumption as references when purchasing a vehicle", as the Environment Protection Administration is quoted by *taipeitimes.com*.

Given the fact that consumers will not forgo the unparalleled convenience of the conventional vehicles, EVs will be used only if they perform similar to the ICE vehicles. Who would spend more for a vehicle that is inconvenient and inferior in performance — expensive, slow, low acceleration and limited range? However, the best EV technology rivals the performance of ICE vehicles in most respects. Though the situation today compels the EVs to use electricity generated in the form of fossil fuels, eventually they would be completely powered by batteries charged by solar energy.

Eco-vehicles improve road safety, enhance the quality of global environment and save fuel and cost. Eco-vehicles also reduce air, water, land and noise pollution and are believed to provide more comfort and a relaxed atmosphere to the drivers and passengers. To be a success, these e-vehicles must consume much less energy per distance travelled, be readily recyclable and must not emit toxic in quantities that are capable of altering climate.

Hazards Caused by Conventional Vehicles

Conventional vehicles work on their ICEs. ICEs convert fossil fuel into carbondioxide, water, carbonmonoxide, nitrogen oxides, sulphur dioxide and other gases that pollute air. They also warm the climate and contribute to the global warming. Fuel additives containing lead poison the air and soil and may be specially dangerous to the intellectual development of young children. Discarded autos blemish the landscape and leach toxics into the environment.