

# INTERNAL COMBUSTION

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**NOT USING CARBON FREE SOURCES OF ENERGY LIKE SOLAR STATIONS TO CHARGE EVs, COULD LEAD TO AN INCREASE IN AIR POLLUTION**

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**T**his year the World EV (Electric Vehicle) Day on September 9th (the inaugural one was held on the same date in 2020) was celebrated with quite a bit of fanfare in our country.

Several state governments released full page advertisements in leading daily newspapers with highlights of their EV policies and incentives being offered, and several auto and EV manufactures, voiced their views on the transition to E-mobility (electric mobility).

The increase in prices of petrol and diesel has also increased interest in EVs and it was recently reported, that the number of electric vehicles in Mumbai has doubled in the last two years. But

despite this, EVs only make up about 1 per cent of total sales of vehicles. Nevertheless, I am sure things will change and in the future there will be a substantial shift to EVs.

Some of the policies of the government are also quite good and the road transport ministry has decided that one can now buy and register an EV without pre-fitted batteries. The batteries account for 30-40 per cent of a EVs cost price, and buying one without a battery, is obviously far more affordable. And renting a battery to drive your EV will become easy as several companies are setting up battery supply or swapping stations. Reliance Industries has even entered into a joint venture with the UK power firm BP, and they plan to have India's largest network of such stations. So if you can hire and swap batteries, where is the need to buy them? This will also do away with the consumer's headache of charging a battery and save on time.

Another good plan is the one to make all urban freight vehicles run on electric power in the next two years. Several delivery companies like Zomato, Blue Dart, Swiggy, Big Basket and so on, have said they will support this initiative and ensure that all their deliveries are only done by EVs.

The Maharashtra Government has said that it will only purchase e-buses in the future for the public transport network operated by BEST and almost 50 per cent of the fleet will be electric by the end of 2022. It already has about 300 e-buses and will add another 100 by end of this year. Presently four of their depots have charging stations, and the government aims to equip all the 27 depots with them at the earliest. This is a good plan, and I would be delighted if they went one step further and only installed eco-friendly solar charging stations for all their e-buses. And this is feasible, as most of the bus depots have enough space for large solar charging stations.

The Government of Maharashtra has also announced that there will be mandatory procurement of electric vehicles for all government departments. In my opinion, such policies can make the transition to EVs smoother and faster, and they should be adopted on an all-India level. Almost all states in India

have their own public transport bus fleets and usually these are amongst the most polluting and noisy vehicles on the road. They also have their own depots or bus garages where solar charging stations can be fitted. I keep emphasising solar, because the only realistic way of reducing vehicular pollution is by using carbon-free renewable sources of energy to charge EVs. If we use coal burning plants or thermal power stations to generate the electricity to charge EVs, then all we are doing is shifting the source of pollution from the vehicle's tailpipe to the coal fired plants chimney! And let's not forget, the more EVs we have on our roads, the more coal we will burn to produce the power to charge them. So if we do not use low carbon or carbon free sources of energy to charge EVs, we might see an increase, instead of a decrease, in air pollution.

In my view, our government has to set an example by being amongst the first to go in for EVs. They must make it mandatory for all Indian government agencies and departments, other than defence, law and order, emergency or security, to make a complete time bound shift to EVs. Also if the government is providing a vehicle to any politician, officer or government servant to use, it should be an electrically powered one. The prime reason for this is that the government purchases all these vehicles with tax payers money, so it should also bite the bullet and "walk the talk" on the transition to E-mobility.

Large private companies, who also give their senior employees vehicles, can move to EVs too. Again most of these employees park their vehicles inside the company's premises or residences arranged by them, so setting up charging facilities is relatively simpler.

Given all this, I seriously think our government should first concentrate on shifting all public transport buses and fleet delivery vehicles to E-mobility and also make a rule that hereafter it will only purchase EVs. It should also encourage and promote battery supply and swapping stations, especially for two wheelers. And of course it has to go in for carbon-free sources of energy to charge batteries of all EVs, otherwise the issue of greenhouse gas emissions will remain. And the entire exercise of shifting to EVs will be futile. 