



(Un)Clean  
DELHI

# Public transport in waiting

WITH THE SUPREME COURT COMING DOWN HEAVILY ON DIESEL VEHICLES AND THE DELHI AND UNION GOVERNMENTS TAKING STEPS TO ENSURE A CLEANER PUBLIC TRANSPORT, AUTO MANUFACTURERS ARE SEEKING TO PROJECT THEIR VEHICLES AS MORE EFFICIENT AND LESS POLLUTING, REPORTS RAKESH KUMAR

Rising concern at the alarming levels of air pollution in Indian cities appears to have touched all auto manufacturing companies trying to sell their products in the country. This was evident at the just concluded Auto Expo 2016, where lower pollution was the dominating theme. While most manufacturers showcased less polluting vehicles, some claimed their vehicles, in fact, produced "cleaner" emission, thus inviting much derision from environmentalists.

Thanks to Supreme Court directives, and Delhi's government pilot project last month, permitting even and odd numbered cars on alternate days, there was a heightened awareness among the general public, and vehicle buyers in particular, about the need to contain air pollution. Sensing this growing concern, most automobiles companies were seen promoting "cleaner" vehicles.

## A cleaner public transport?

Recognising the importance of public transport as the future mode of travel, auto manufacturers focused on hybrid and electronic buses at the auto expo. But no real effort has been made by any carmaker to popularise green technology.

For instance, Eicher, which is into making buses, trucks and other commercial vehicles, showcased seven products (trucks and buses), all powered by hybrid engines. The vehicles included Eicher Skyline Pro School Bus, which is fitted with a hybrid system that combines a conventional internal combustion engine with an electric propulsion system that drastically reduces emissions and improve fuel efficiency. At the same time, this bus claims to have state-of-the-art electronic safety features and advanced telematics.

"Hybrid buses could be one of the solutions to reduce pollution levels and a key transportation mode in the proposed smart cities of the future," informed Vinod Agarwal, CEO of VE Commercial Vehicle.

Scania Commercial Vehicles India Pvt Lt, another bus and truck maker in India, also showcased environment-friendly products at the auto expo. They launched a bio-fuel powered Citywide bus, which can run on fossils fuel (diesel) as well as renewable fuels (bio-ethanol, bio-diesel, bio-methane). The vehicle is compatible with all commercially available biofuels like BS 4, 5 and 6. "The Citywide bus can

run on diesel, biofuel, CNG, biogas and ethanol," said Sactria MD Mikael Benje. "We also plan to set up a biogas project, where waste will be converted to generate fuel for buses."

Another Indian firm JBM went a step further by introducing the country's first 100 per cent electric bus, Ecolife. This zero-emission vehicle is powered by lithium batteries capable of running 150-200 km in 10-15 hours of city operation on a single charge. The vehicle can also run on plug-in charge. "With pollution a serious health concern in metros, it has become imperative to shift our mass transport from fossil fuel to non-fossil fuel," said the JBM spokesperson. "We believe electric bus will be an apt solution."

Meanwhile, Mahindra and Mahindra too launched their electric commercial van Supra. The company showcased a demo hydrogen bus it has co-developed with IIT and the ministry of new and renewable energy (MNRE). "We have also introduced electric scooter and electric sedan to promote the cause of environment friendliness," said the company's promoter.

Lohia Auto, a part of the Lohia Global group, launched an electric two-wheeler and a new range of cargo e-rickshaws. The two-wheeler is the first lithium ion battery-operated electric two-wheeler. The company also showcased its first "high speed" electric two-wheeler at the expo, which can clock a maximum speed of 60 km per hour compared to a maximum speed of 25 km per hour for its current models.

Toyota, the first to introduce hybrid technology in its Prius sedan, has now introduced this in Camry Maruti too has a hybrid offer in Ciaz.

## Why hybrid?

With diesel coming under much fire for its highly polluting exhaust, which contains ozone precursors, benzene, arsenic, dioxins, formaldehyde and other toxic substances, while contributing significantly to fine particulate matter (PM) in the atmosphere, auto manufacturers are turning to hybrid-electric buses. These vehicles consume less energy and produce less emission by combining an internal combustion engine with an electric motor. To achieve heightened efficiency, the hybrid vehicle's battery-powered electric motor allows the combustion



engine to operate at periods of maximum efficiency. However, in hybrid buses ultra low sulfur diesel is the most common fuel used to power the combustion engine.

These hybrid buses are estimated to cut emissions by as much as 75 per cent, when compared to conventional diesel buses. The particulate matter (PM) emission from hybrid buses equipped with particulate matter filters is almost 90 per cent lower than a conventional diesel bus without a particulate filter. Similarly, manufacturers claim diesel-hybrid buses exhibit the lowest carbon monoxide (CO) emissions of any of the buses tested, including CNG and conventional diesel buses. Hybrids, they say, also demonstrate lower greenhouse gas emissions as a result of improved fuel economy.

## Trashing claims

Tall claims by some auto manufacturers, however, came under fire by auto experts and environmentalists. The Centre for Science and Environment (CSE) condemned the remark of the Jaguar and Land Rover chief Ralph Ralf Speth that their cars act like air purifying machines. Speth was quoted as saying, "All our models are Euro VI compliant and these vehicles clean the air, and the air they suck in is far dirtier than which comes out of it."

The Jaguar chief also claimed they were

producing Euro VI cars without explaining how these are working in India as Indian fuel which is high in sulphur would have destroyed the emissions control systems by now. "This is a most irresponsible statement to make at a time when dieselisation in India is contributing towards rising particulate and nitrogen oxides and ozone pollution, and also to the risk of growing lung cancer incidence in cities," said Anumita Roy Chowdhury, CSE's executive director. "Also, globally diesel cars have come under scrutiny and action for aggravating the problem of nitrogen oxide pollution and high and variable emissions from diesel cars on road."

The Jaguar statement comes after Mercedes Benz had made similar claims about the emissions from their cars being clean and the Chief Justice Thakur had commented, "Does your car emit oxygen?"

CSE said such "irresponsible claims" have been made when public health risk from diesel emissions has been taken up on a priority basis by the Supreme Court and the Union government. While the Supreme Court has already initiated action on diesel trucks and luxury diesel cars in the National Capital Region of Delhi, the Centre is advancing enforcement of Euro VI emissions standards, it added.