

Accelerating green mobility

We believe future mobility should be environment friendly. Eco-sensitivity is more than a philosophy at Tata Motors; it reflects in our day-to-day operations and products.

We are committed to sustainably reduce our carbon footprint. Use of alternative energy sources (solar, wind and natural gas) have enabled us to reduce carbon emissions from our plants.

To ensure that products are environmentally sound, balance of materials in vehicle components are consistently renewed, extended life lubricants and fluids are developed and ozone-friendly refrigerants are used. Additionally, we have implemented environmentally sensitive technologies in the manufacturing processes and use some of the world's most advanced equipment for **emission check and control**.

Improving energy efficiency, forms the second pillar of Tata Motors' commitment to environment protection. We remain at the vanguard of the Indian automobile industry's anti-pollution efforts by introducing **cleaner engines**.

Vehicle efficiencies have improved, on an average, by 5% year-on-year, allowing for **greater fuel efficiencies**. The promotion and maintenance of best

practices reduces environmental impact. Tata Motors was the first Indian company to introduce vehicles with Euro norms well ahead of the mandated dates. Tata vehicles meet European End-of-Life Vehicle (ELV) Directive standards to maintain metal and non-metallic material balance, such that a maximum of 5% of the vehicle weight becomes waste to landfill.

Jaguar Land Rover is the global leader in the use of aluminium and other lightweight materials to **reduce vehicle weight**. Two of the current products within the portfolio use this technology – the Jaguar XJ and Jaguar XK. Going forward, Jaguar Land Rover plans to deploy its core competence in aluminium construction across more models in its range. Jaguar Land Rover continues to invest in new technologies, including developing sustainable technologies to **improve fuel economy and reduce CO₂ emissions**. Its environmental vehicle strategy focuses on new propulsion technology, weight reduction and reducing parasitic losses through the driveline. Projects like REEVolution, REHEV and Range-e represent some of the research projects undertaken for the electrification of premium sedan and all-terrain vehicles.



The Range_e concept

Range_e is Jaguar Land Rover's technology concept for a plug-in hybrid diesel-electric power train. It marks a global first as a luxury all-wheel drive vehicle powered by plug-in hybrid system. The vehicle, based on the Range Rover Sport, can be driven for more than 20 miles on its electric power, creating zero tailpipe emissions. Beyond this range the diesel hybrid drive train engages seamlessly and continues to optimise CO₂ emissions. The Range_e is one of a number of Land Rover projects supported by the UK Government's Technology Strategy Board. The technology showcased in Range_e is destined to be deployed in production vehicles.

Some CNG models in Tata Motors' portfolio



Ace CNG

Electric models in Tata Motors' portfolio



Indica EV



Indigo XL



Ace EV

 Total reduction in CO₂ from Gas and Electricity for Jaguar Land Rover (Over previous year)

19%

Total reduction in Water Usage for Jaguar Land Rover (Over previous year)

15%