# GOVERNMENT OF INDIA
# RAILWAYS
# LOK SABHA

UNSTARRED QUESTION NO:5593
ANSWERED ON:29.04.2010
ENERGY CONSUMPTION BY RAILWAYS
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**Will the Minister of RAILWAYS be pleased to state:**

(a) whether the Railways have taken steps towards reduction in energy consumption through weight reduction of bogies;

(b) if so, the details thereof; and

(c) the details of technological advancement aimed at cutting down energy consumption and emissions?

## Answer

MINISTER OF THE STATE IN THE MINISTRY OF RAILWAYS (SHRI K.H. MUNIYAPPA)

(a) & (b) Yes, Madam. A light weight design of stainless steel coach has been acquired by Indian Railways through a transfer of technology from M/s. Linke Hoffman Bush (LHB). Besides having a higher passenger capacity, it is also lighter in weight as compared to conventional design coaches. This initiative has led to an efficient and optimized energy consumption for haulage of coaches/trains. Indian Railways have indigenously manufactured about 900 such coaches so far.

(c) Other initiatives undertaken to cut down energy consumption and emission are:

(i) Use of energy efficient kits on diesel locomotives.

(ii) Manufacture of High Horse Power Diesel Locomotives which result in efficient locomotion, by virtue of their higher horsepower, tractive effort and longer reach in between maintenance intervals.

(iii) Trials with Bio-diesel for Diesel Locomotives and CNG mixed with high speed diesel in Diesel Multiple Units (DMUs).

(iv) Adoption of state of art high efficiency Insulated Gate Bipolar Transistor (IGBT) convertor technology on Electric Locomotives and Electrical Multiple Units (EMUs) that exploits regeneration to recover energy during braking. This also reduces carbon emission as drawal of electricity is reduced.

(v) Adoption of energy efficient light fittings and employing Clean Development Mechanism to distribute CFLs free of cost to Railway employees residing in Railway colonies, in replacement of incandescent lamps.

(vi) Generation of electricity through wind mills in wind rich areas. A pilot project of 10.5 MW capacity has been successfully executed in Tamil Nadu for supply of wind generated electricity to Integral Coach Factory (ICF) at Chennai.

(vii) Thrust on use of solar power & solar water heaters particularly in running rooms & hospitals.

(viii) Use of stainless steel in wagon construction to reduce wagon weight.