

**GOVERNMENT OF INDIA  
RAILWAYS  
LOK SABHA**

UNSTARRED QUESTION NO:1965  
ANSWERED ON:09.03.2015  
ENERGY BILL IN RAILWAYS  
Ering Shri Ninong;Scindia Shri Jyotiraditya Madhavrao

**Will the Minister of RAILWAYS be pleased to state:**

- (a) whether in view of hefty fuel costs, the railways have sought inputs from experts on various ways to bring down the energy bill;
- (b) if so, the details of the views of energy experts who have given inputs to railways;
- (c) whether the Railways have examined the views of energy experts;
- (d) if so, the details thereof; and
- (e) the steps taken by the Railways in this regard?

**Answer**

MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI MANOJ SINHA)

(a) to (e): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF UNSTARRED QUESTION NO. 1965 BY SHRI NINONG ERING AND SHRI JYOTIRADITYA M. SCINDIA TO BE ANSWERED IN LOK SABHA ON 09.03.2015 REGARDING ENERGY BILL IN RAILWAYS.

(a) & (b): Yes, Madam.

**Mechanical Engineering :** Based on expert advice from Research Designs and Standards Organisation (RDSO) and Indian Railways Organisation for Alternate Fuels (IROAF), it was decided to blend 5% Bio-diesel on diesel locomotives. Dual fuel engines with Compressed Natural Gas (CNG) and diesel have been introduced on Diesel Electric Multiple Units (DEMUs). Auxiliary Power Unit (APU) is fitted on diesel locomotives to reduce fuel consumption during idling by shutting down main engine. Multigenset locomotives, designed to have more than one engine on board, with number of engines working in relation to train load and shutting down on reduced train loads and duty cycles, have been introduced.

**Electrical Engineering :** Central Electricity authority (CEA) was appointed by Railways for preparing "Energy plan for Indian Railways" and suggesting ways to optimize the cost of buying power for the Railways.

Salient recommendations in CEA Report are as follows:

1. Indian Railways to migrate part of existing traction loads from DISCOMs in a phased manner and procure the same from Generating companies (GENCO) through tariff based bidding/ bilateral arrangements.
2. Indian Railways to explore constructing Railways Transmission line for direct connection to Inter-state Transmission Line for direct connection to Inter-state Transmission System (ISTS)
3. Carry out detailed energy audits.

(c): Yes, Madam.

(d) & (e): **Mechanical Engineering :** Zonal Railways have been advised to procure Bio-diesel for use on diesel locomotives. DEMU train sets have been introduced in service with dual fuel CNG/ diesel engines. 100 diesel locomotives are fitted with APUs. Two multigenset locomotives are introduced on line.

**Electrical Engineering :** The steps taken by Railways to bring down expenditure on electricity are:

Setting up of captive power plant at Nabinagar in Joint Venture (JV) with NTPC, construction of transmission lines, getting power at economic tariff through bilateral arrangements with Damodar Valley Corporation (DVC) and other Generating Companies (GENCOS) progressively and auditing of major electrical installations.