

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 2864**  
**ANSWERED ON 24.03.2023**

**PROPORTION OF ELECTRIFIED RAILWAY NETWORK**

2864 SHRI SUSHIL KUMAR MODI:

Will the Minister of RAILWAYS be pleased to state:

- (a) the proportion of India's total railway network that is presently fully electrified;
- (b) share of electric locomotives in total locomotives of Indian railways as of February, 2023;
- (c) reduction in fuel cost, diesel consumption and maintenance costs due to increased electrification in the last five years, year-wise;
- (d) estimated expenditure to be incurred and ground to be covered to meet the 100 per cent electrification target by 2024;
- (e) whether Government is increasing renewable energy capacity to power the electrified railway network; and
- (f) if so, the details of capacity additions already achieved and associated investments in renewable energy that are in the pipeline?

**ANSWER**

MINISTER OF RAILWAYS, COMMUNICATIONS AND  
ELECTRONICS & INFORMATION TECHNOLOGY  
(SHRI ASHWINI VAISHNAW)

(a) to (f) A Statement is laid on the Table of the House.

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**STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) OF UNSTARRED QUESTION NO. 2864 BY SHRI SUSHIL KUMAR MODI ANSWERED IN RAJYA SABHA ON 24.03.2023 REGARDING PROPORTION OF ELECTRIFIED RAILWAY NETWORK**

(a) 86% of total Broad Gauge (BG) network of Indian Railways has been electrified up to February, 2023.

(b) As on 28.02.2023 the share of electric locos is 65.75%.

(c) Details of fuel cost, diesel consumption and maintenance costs is given below:

| SN | Description   | Year      |           |           |           |           |
|----|---|-----------|-----------|-----------|-----------|-----------|
|    |   | 2016-17   | 2017-18   | 2018-19   | 2019-20   | 2020-21   |
| 1  | Fuel consumed for loco operation (KLs)                        | 27,93,758 | 27,78,431 | 26,41,142 | 23,65,299 | 11,75,901 |
| 2  | Cost of fuel consumed for loco operation (in Cr. of ₹)        | 15,369    | 16,841    | 18,587    | 16,378    | 11,439    |
| 3  | Locomotive maintenance (Diesel & Electric) cost (in Cr. of ₹) | 6,302     | 5,438     | 5,955     | 6,146     | 5,182     |

(d) Estimated expenditure to Electrify balance Broad Gauge routes of Indian Railways is ₹ 17,387 crore as on. 01.04.2022

(e) and (f) To meet the increased traction power requirement of Indian Railway (IR), IR plans to progressively increase the share of renewable energy to meet its traction power requirement. As of February, 2023, about 147 Mega Watt (MW) of solar plants and about 103 MW of Wind power plants have been commissioned. Further, about 2,150 MW of renewable capacity has also been tied up.

Most of this work is taken up/planned in developer mode in which Railways does not have to incur capital expenditure.

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