

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
STARRED QUESTION NO. 470
TO BE ANSWERED ON 05.04.2023**

MODERN REGENERATIVE BRAKING SYSTEM TECHNOLOGY

***470. SHRI DHAIRYASHEEL SAMBHAJIRAO MANE:
SHRI SHRIRANG APPA BARNE:**

Will the Minister of RAILWAYS be pleased to state:

- (a) whether the North Eastern Railway (NER) has used a modern/new technology of regenerative braking system technology of three phase locomotive in which electricity is produced while applying brake and if so, the details thereof;**
- (b) the total amount of electricity produced and revenue generated or saved by the Railways by using the said new technology, train name-wise;**
- (c) the total number of such engines with this new technology presently available with the NER;**
- (d) whether the Government has set any target regarding generation of electricity during the present financial year and if so, the details thereof;**
- (e) the steps taken/being taken by the Government to introduce more such railway engines equipped with this new technology in other zones; and**
- (f) the total amount likely to be spent for manufacturing of such engines loaded with new technology and the amount of funds likely to be saved by the Railways in the near future?**

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.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) OF STARRED QUESTION NO. 470 BY SHRI DHAIRYASHEEL SAMBHAJIRAO MANE AND SHRI SHRIRANG APPA BARNE TO BE ANSWERED IN LOK SABHA ON 05.04.2023 REGARDING MODERN REGENERATIVE BRAKING SYSTEM TECHNOLOGY

(a) to (f): Yes, Sir. Regenerative braking technology is being used in many applications over Indian Railways, in three-phase technology electric locomotives, Electric Multiple Units (EMUs), Mainline Electric Multiple Units (MEMUs) and Vande Bharat trains. The amount of regeneration of electricity depends on various external factors like load being carried, number of halts & speed restrictions, speed of trains, gradient of railway track, distance travelled during regenerative braking etc. Therefore, it is not feasible to set specific targets regarding regeneration of electricity. Depending upon the application, various external factors and section to section topology, amount of regeneration varies significantly from 5% to 25%. All electric locomotives manufactured by Railways, in its locomotive production units, are having regenerative braking features. All Zonal Railways, including North Eastern Railway, are utilizing these electric locomotives.
