

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
LOK SABHA
UNSTARRED QUESTION NO. 1811
TO BE ANSWERED ON 29.07.2026**

ELECTRIFICATION OF RAILWAYS AND GREEN TRANSPORTATION

†1811. SMT. ANITA NAGARSINGH CHOUHAN:

Will the Minister of RAILWAYS be pleased to state:

- (a) whether the Government is promoting railway electrification, solar energy and the use of other renewable energy sources with the objective of making Railways a Net-Zero carbon emitter and if so, the details of the progress made during the last two years;**
- (b) whether railway electrification, rooftop solar plants, LED lighting and other green infrastructure works have been carried out on railway sections and stations in Lok Sabha Parliamentary Constituency No. 24 (Ratlam-Jhabua-Alirajpur) in Madhya Pradesh and if so, the details thereof;**
- (c) whether any scheme has been approved to develop the railway stations of the said Lok Sabha constituency as Green Railway Stations; and**
- (d) if so, the details of the funds sanctioned for these projects, current status of works, probable date of completion and the expected environmental and energy-efficiency benefits at the local level?**

ANSWER

**MINISTER OF RAILWAYS, INFORMATION & BROADCASTING AND
ELECTRONICS & INFORMATION TECHNOLOGY**

(SHRI ASHWINI VAISHNAW)

(a) to (d) Electrification of railway network on Indian Railways has been taken up in mission mode. So far, about 99.6% of Broad Gauge (BG) network has been electrified. The electrification in remaining network has been taken up. Electrification carried out during 2014-26 and before 2014 is as under:

Period	Route Kilometer
Before 2014 (about 60 years)	21,801
2014-26	48,072

State/UT wise status of electrification including Bihar, Uttar Pradesh, Andhra Pradesh and Madhya Pradesh is as under:

SN	STATE	% Electrified	SN	STATE	% Electrified
1	Andhra Pradesh	100%	16	Mizoram	100%
2	Arunachal Pradesh	100%	17	Nagaland	100%
3	Bihar	100%	18	Odisha	100%
4	Chandigarh	100%	19	Puducherry	100%
5	Chhattisgarh	100%	20	Punjab	100%
6	Delhi	100%	21	Telangana	100%
7	Gujarat	100%	22	Tripura	100%
8	Haryana	100%	23	Uttar Pradesh	100%
9	Himachal Pradesh	100%	24	Uttarakhand	100%
10	Jammu & Kashmir	100%	25	West Bengal	100%
11	Jharkhand	100%	26	Rajasthan	99.8%
12	Kerala	100%	27	Tamil Nadu	98.3%
13	Madhya Pradesh	100%	28	Assam	97.9%
14	Maharashtra	100%	29	Karnataka	96.8%
15	Meghalaya	100%	30	Goa	91.4%

Indian Railways (IR) has undertaken one of the fastest railway electrification programs in the world. While many countries prioritize electrifying only their busiest passenger and freight corridors, India has chosen to electrify its entire broad gauge network. Indian Railways'

achievement in railway electrification stand out globally. According to the latest report of International Union of Railways (UIC) of June, 2025, railway electrification in important railway systems is as under:

Country	Railway Electrification
Switzerland	100%
India	99.6%
China	82%
Spain	67%
Japan	64%
France	60%
United Kingdom	39%

By network coverage, Indian Railways is now among the most extensively electrified large railway systems in the world. Indian Railways had electrified 99.6% of its broad-gauge network, completing one of the world’s largest infrastructure transformation programs in a decade.

Electric traction is not only environmental friendly but energy efficient also. Reduction in CO2 emissions in transportation by railways as compared to transportation by road is as under (Ref:- NITI Aayog Report titled “Fast Tracking Freight In India”, June 2021)

Mode of Transportation	CO2 emission for transportation of 1 tonne for 1 km
Road	101 gm
Rail	11.5 gm (about 89% less)

Further, electrification of railway tracks reduces dependency on fossil fuels, decreased diesel consumption resulting in lower carbon emission. Electrification enables better haulage capacity and higher train speeds, leading to reduced travel time and enhanced efficiency. Reduction in IR's diesel consumption for traction purpose by 185 crore litres with about 108 crore litres consumption in 2024-25 as compared to 293 crore litres in 2015-16.

Electrified railways are well suited for integrating solar, wind & other renewable energy into traction power systems, making them most effective transport systems for utilizing renewable electricity. Indian Railways is committed to sustainable operations through near total Railway Electrification combined with use of renewable energy sources, based on strategic power procurement planning, thus contributing to carbon footprint reduction.

Indian Railways (IR) has also taken initiatives to use of energy efficient technologies to reduce carbon emissions like completely switching over to production of three phase electric locomotives with regenerative features, use of head on generation (HOG) technology, use of LED lights in buildings and coaches, star rated appliances.

Further, provision of Solar Power at railway stations is a continuous process and as on June, 2026, about 1161 Mega Watt (MW) of solar plants (both on rooftops and on land) and about 103 MW of wind power plants have been commissioned over IR.

In redevelopment process of stations, all environmental norms are duly considered, while sanctioning of Environmental Management Plan (EMP) for achieving sustainable modernization of stations.

Indian Railways has envisioned to become net zero carbon emitter through the usage of non-fossil sources power, saving in diesel consumption by electrification of railway tracks, consistent efforts directed towards modal shifting of cargo and passenger from road to rail, harnessing hydrogen gas to drive train sets etc. Through these efforts, Indian Railways are on way to achieve net zero carbon emitter.

In Madhya Pradesh, entire existing BG network including that in Ratlam Parliament Constituency has been electrified. Further, all new line / multi-tracking projects are being sanctioned and constructed with electrification.

So far, 1017 kWp rooftop solar capacity has been installed over 18 railway stations/buildings in the Ratlam Lok Sabha Constituency. At present, LED lights have been provided in all the railway stations/buildings in the Ratlam Lok Sabha Constituency.

Station Development works under Ratlam Parliament Constituency have been taken up at following two stations:

- Ratlam station: The works of improvement of station building, waiting room, toilet, improvement of circulating area, parking and platform shelters have been completed. The work of 12 m wide foot over bridge has been taken up.**
- Meghnagar station: The works of new station building at main entry side, new waiting hall at second entry side, toilet block, improvement of circulating area and parking have been completed. The works of 12 m wide foot over bridge and lift have been taken up.**

Amrit Bharat Stations:

Ministry of Railways has launched Amrit Bharat Station Scheme for redevelopment of stations with a long-term approach.

The scheme involves preparation of master plans and their implementation in phases to improve and upgrade the stations of Indian Railways. The master planning, keeping in view the necessity of each station, includes:

- **Improvement of access to station and circulating areas**
- **Integration of station with both sides of city**
- **Improvement of station building including illumination**
- **Improvement of waiting halls, toilets, sitting arrangement, water booths**
- **Provision of wider foot over bridge/subway to commensurate with passenger traffic**
- **Provision of lifts/escalators/ramps**
- **Improvement of platform surface/ provision of platform shelter**
- **Provision of kiosks for local products through schemes like 'One Station One Product'**
- **Parking development**
- **Amenities for Divyangjans**
- **Better passenger information systems**
- **Provision of air concourse, executive lounges, Multimodal integration, landscaping, etc.**

The scheme also envisages sustainable and environment friendly solutions etc. as per necessity, phasing and feasibility and creation of city centre at the station in the long term.

So far, 1,340 stations have been identified for development under this scheme, out of which 80 stations, including Ratlam and Meghnagar stations of Ratlam Lok Sabha Constituency, are located in Madhya Pradesh. The names of stations identified for development under Amrit Bharat Station Scheme in Madhya Pradesh are as following:

State	No. of Stations	Name of Stations
Madhya Pradesh	80	Akodia, Amla, Anuppur, Ashoknagar, Balaghat, Banapura, Bargawan, Beohari, Berchha, Betul, Bhind, Bhopal, Bijuri, Bina, Biyavra Rajgarh, Chhindwara, Dabra, Damoh, Datia, Dewas, Gadarwara, Ganjbasoda, Ghoradongri, Guna, Gwalior, Harda, Harpalpur, Indore Jn, Itarsi Jn, Jabalpur, Junnor Deo, Kareli, Katni Jn, Katni Murwara, Katni South, Khachrod, Khajuraho Jn, Khandwa, Khirkiya, Laxmi Bai Nagar, Maihar, Maksi Jn, Mandla Fort, Mandsor, MCS Chhatarpur, Meghnagar, Morena, Multai, Nagda Jn, Nainpur Jn, Narmadapuram, Narsinghpur, Nepanagar, Nimuch, Orchha, Pandhurna, Pipariya, Ratlam, Rewa, Ruthiyai, Sanchi, Sant Hirdaram Nagar, Satna, Saugor, Sehore, Seoni, Shahdol, Shajapur, Shamgarh, Sheopur Kalan, Shivpuri, Shridham, Shujalpur, Sihora Road, Singrauli, Tikamgarh, Ujjain, Umaria, Vidisha, Vikramgarh Alot

Completed stations:

Development works at railway stations under Amrit Bharat Station Scheme in Madhya Pradesh have been taken up at a good pace. Details of stations completed in Madhya Pradesh are as under:

State	No. of stations	Name of stations
Madhya Pradesh	19	Ashoknagar, Balaghat, Beohari, Bhind, Chhindwara, Harpalpur, Junnor Deo, Katni South, MCS Chhatarpur, Nainpur Junction, Narmadapuram, Orchha, Sanchi, Seoni, Shajapur, Shivpuri, Shridham, Tikamgarh, Vidisha

The activities for development at other than Ratlam Parliament Constituency stations (Ratlam and Meghnagar Stations) have also been taken up at good pace and progress of some of the stations is as given below:

- Vikramgarh Alot station: The works of improvement of waiting hall, toilets, improvement of platform surface and platform shelter have been completed. The works of improvement of circulating area, station building, toilet and signage have been taken up.**
- Khachrod station: The work of new station building at main entry side, toilet block, improvement of circulating area, parking, platform shelter and improvement of platform surface have been completed. The work of 6 m wide foot over bridge has been taken up.**
- Nagda Junction station: The works of improvement of station building, improvement of circulating area, parking, platform shelter,**

improvement of platform surface, waiting hall and new toilet block have been completed. The work of 12 m wide foot over bridge has been taken up.

Further, development / redevelopment / upgradation / modernisation of stations on Indian Railways is a continuous and ongoing process and works in this regard are undertaken as per requirement, subject to inter-se priority and availability of funds. Development / redevelopment / upgradation / modernisation of a station is carried out based on category of station/condition/traffic handled etc.

Development / Upgradation of railway stations is a complex in nature involving safety of passengers & trains and requires various statutory clearances such as tree cutting, heritage, fire clearance, airport clearance etc. These stations are in operation since long, so brownfield work challenges are being faced, such as shifting of utilities (involving water/sewage lines, optical fibre cables, gas pipelines, power/signal cables, etc.), infringements, operation of trains without hindering passenger movement, speed restrictions due to works carried out in close proximity of the tracks and near to high voltage power lines, etc. and these factors affect the progress of work and completion time.

Development / upgradation / modernisation of stations including under Amrit Bharat Station Scheme is generally funded under Plan Head-53 'Customer Amenities'. The details of allocation and expenditure under Plan Head-53 are maintained Zonal Railway-wise and not station-wise or state-wise. Ratlam constituency falls under the jurisdiction of one railway zone, namely, Western Railway. For this zone, an allocation of ₹ 1,334 crore has been made for the financial year 2026-27, out of which an expenditure (up to June, 2026) of ₹ 475 crore has been incurred so far.
