



Wind Turbines Along Railway Tracks

[Source: BS](#)

Indian Railways (IR) is exploring the use of **wind turbines along railway tracks** as part of its goal to achieve **net-zero carbon emissions by 2030**.

- A pilot project by Western Railway installed **mini vertical-axis turbines** generating **1-10 kW** of electricity, harnessing wind from passing trains.

Possible Challenges:

- **Logistics:** Complex installation and maintenance coordination, particularly in urban areas with limited space.
- **Safety:** Turbine failures could pose risks to trains and passengers.
- **Wind Conditions:** **Optimal wind conditions** may not align with railway corridor locations.
- **Space Constraints:** Sufficient spacing for turbines may be difficult to achieve along tracks.
- **Economic Viability:** High installation and maintenance costs.

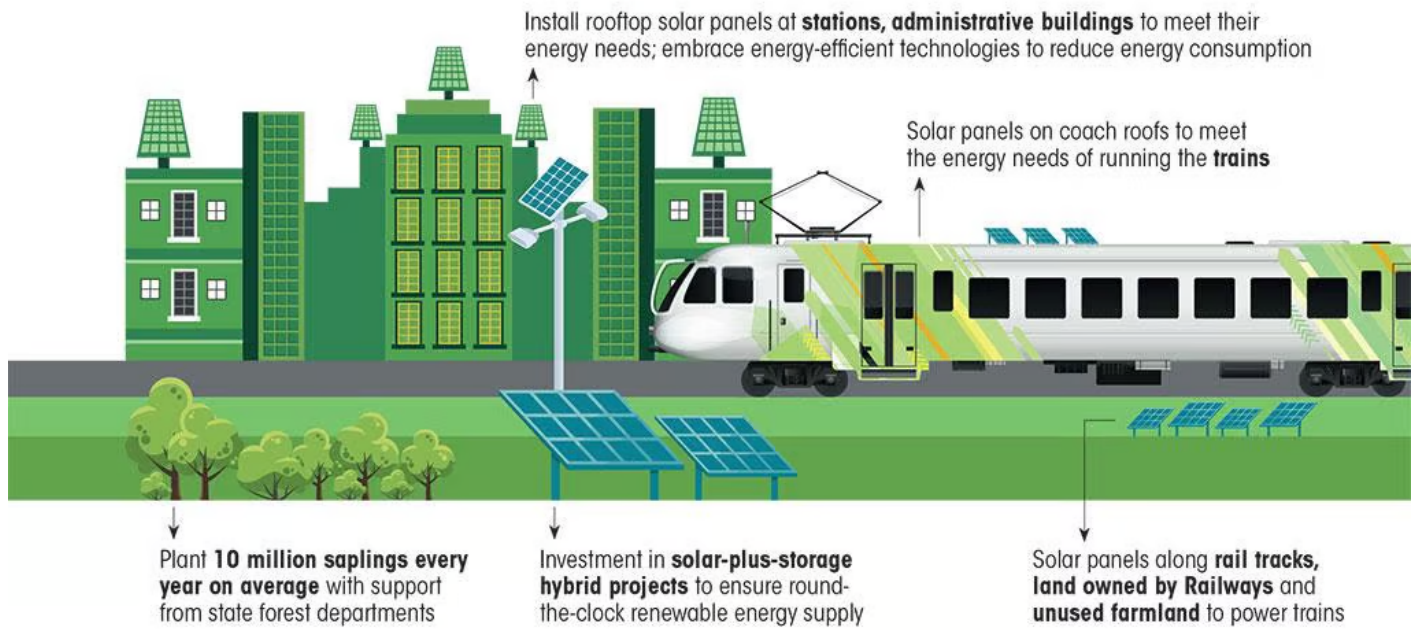
Indian Railways (IR)' Renewable Energy Progress:

- By November 2024, IR commissioned **487 MW of solar power, 103 MW of wind power, and 100 MW of Renewable Energy Round-the-Clock (RTC)**.
- A total of 2,014 MW of renewable capacity is planned, supporting its goal of achieving **net-zero carbon emissions by 2030**.

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GREEN ALL THE WAY

Solutions that the Railways plans to embrace to increase its installed capacity of renewables to 30 GW by 2030



Source: Various reports released by the Indian Railways

Read More: [Rerouting Indian Railways' Future](#)

PDF Reference URL: <https://www.drishtias.com/printpdf/wind-turbines-along-railway-tracks>

