

Electrification of Railways

Why in news?

\n\n

\n

- Indian Railways (IR) is working on reducing fuel costs and carbon footprint through electrification of routes. The project is expected to be completed by 2021.

\n

\n\n

What is the plan of the project?

\n\n

\n

- Earlier it was targeted to electrify 18,000 route kilometres (rkm) by the year 2020.

\n

- By the action plan of November 2016 the target is raised 24,000 rkm by 2021 that is to cover 6,000 km every year.

\n

- For accelerated execution, electrification projects are being funded under EBR (institutional finance of Germany).

\n

- Also, IR has joined hands with three public sector undertakings – IRCON, RITES and PGCIL – and expects to reduce its fuel bill by Rs 10,000 crore annually through electrification of major routes.

\n

- Electrifications also involves two dedicated freight corridors (DFCs) on which work is currently underway will both sport electrified lines.

\n

\n\n

\n

1. The Western DFC will cover 1,504 km of.

\n

2. The Eastern DFC will cover a route length of 1,856 km.

\n

\n\n

What are the reasons for electrification?

\n\n

- \n
- Electric traction is much cheaper and efficient compared with diesel traction.
- \n
- Running trains on electric traction is 50 per cent cheaper than diesel.
- \n
- Electric multiple units (EMUs) are ideal for suburban services, which require higher acceleration and braking features for frequent starts and stops.
- \n
- For seamless movement, modernisation in areas such as signalling and telecom.
- \n
- To reduce the carbon footprint.
- \n

\n\n

What are the advantages of electrifying railways?

\n\n

- \n
- The speed and throughput are better owing to faster speeds.
- \n
- Rate of return on capital is very high when compared to conventional engines.
- \n
- Lower operational and maintenance cost.
- \n
- Reduction in foreign exchange expenditure, due to zero fuel usage.
- \n
- Use of technology, like rail wire for providing internet.
- \n

\n\n

Way forward:

\n\n

- \n
- According to reports of CRISIL a risk analysis company, the ramp-up would be slightly slower as contractors would need some time to scale up.
- \n

- Also, the upward bias to electrification outlook is subject to availability of electric locomotive capacity and funds, since it involves Rs 1.2 crore per km and.

\n

- Electrification is strictly important as India is a signatory of UNFCCC for reducing the carbon emissions, this initiative is highly welcomed.

\n

- Indian government instead of planning in introduction of bullet trains can concentrate more on upgrading the present railway system to global standards.

\n

\n\n

\n**Source: Indian express**

\n

