

Indian Railways deal with Siemens for high horsepower engines

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In news— Recently, Indian Railways has partnered with global mobility solutions major Siemens to produce 1,200 high horsepower electric locomotives at an overall cost of around Rs 26,000 crore.

About Siemens models deal-

- While Railways has had such arrangements before, notably with other global majors like Alstom and General Electric to procure locomotives from factories in Bihar's Madhepura and Marhowra respectively, **the pact with Siemens is special because this model is new in India.**
- For starters, the supplier, that is Siemens, has **no capital expenditure liability in this contract.** This is because **all the locomotives will be manufactured in Railways' newly built factory in Dahod, Gujarat. The manpower in the factory will also be supplied by Railways.** Siemens will bring in material procurement, supervision and the technology to make the 9,000 horsepower engines.
- **Regular Railways locomotives have between 3,000 and 6,000 horsepower.** The ones being made in Madhepura are 12000 horsepower strong while those in Marhowrah are of 6,000 horsepower each.
- In the Madhepura-Marhowra projects, the then innovative model for which was finalised as early as 2008 but the factory finally took off around 2015, Railways gave land for the factory whereas the technology partners did everything else, including setting up the factory and

supplying the manpower. **This was called Procurement cum Maintenance Agreement, whereas the current one with Siemens is called Manufacture cum Maintenance Agreement. The contract is for 35 years,** including maintenance, which is pretty much the entire lifecycle of the engines.

- There is also the added advantage that this, like in Madhepura-Marhowrah, **is an “assured offtake” model, wherein, all the 1,200 engines are pre-bought by the client, so there is zero risk.**
- Globally, another transportation solutions major Bombardier has a somewhat similar model called **FlexCare**, for engagement with clients on long-term maintenance of the vehicles it makes.
- The first engine will take two years to come out because setting up the factory will take that much time. The network operator also needs the appetite for absorbing the engines, which is based on the currency of its existing stock. Considering that, the roll-out has been staggered over 11 years.
- **Indian Railways is calling these high horsepower (9000 HP) locomotives “future workhorse” for freight operation. These locomotives are planned for use primarily on the Western dedicated freight corridor** and on graded sections of Railways for hauling container freight trains at steep gradients and improve the average speed of such trains to around 50-60 kmph over the existing 20-25 kmph.

End of diesel engines?

- The Indian government has taken the policy decision to gradually electrify 100 per cent of its broad gauge rail network of around 66,000 km.
- As a result, there is a move to slowly retire end-of-life diesel locos.
- However, Railways will keep a stock of around 2,000 high

horsepower diesel locomotives for various needs, like contingencies, linking and other operations necessities.