



## **PRESS BRIEF**

### **Dedicated Freight Corridor Corporation of India Limited (DFCCIL)**

Dedicated Freight Corridor Corporation of India (DFCCIL) is a Special Purpose Vehicle set up under the administrative control of Ministry of Railways to undertake planning & development, mobilization of financial resources and construction, maintenance and operation of the Dedicated Freight Corridors. DFCCIL was incorporated in October 2006 under Indian Companies Act 1956.

DFCCIL has been set up with 100% equity by Ministry of Railways and registered as a company under the Companies Act 1956 on 30th October, 2006. The authorized capital of the project is Rs. 8,000 Cr. The genesis of the Dedicated Freight Corridor is due to saturation in rail transportation capacity of Indian Railways on the Golden Quadrilateral. The Indian Railways' network linking the four metropolitan cities of Delhi, Mumbai, Chennai and Howrah, along with its two diagonals (Delhi-Chennai and Mumbai-Howrah) commonly known as the Golden Quadrilateral, adding up to a total route length of 10,122 km, carries more than 58% of its revenue earning freight traffic.

The Indian Railways is the lifeline of the nation. Growth in Indian Economy is leading to surge in power demands requiring heavy coal movement, booming industrial growth & infrastructure construction. Growing international trade along existing Eastern and Western Routes has led to the demand for additional capacity for rail freight transportation. In the first phase, the Government of India has approved construction of two corridors-the Western DFC (1502 route km) and Eastern DFC (1840 route km)- spanning a total length of about 3342 route km.

The Eastern Corridor, starting from Dankuni in West Bengal will pass through the states of Jharkhand, Bihar, Uttar Pradesh and Haryana to terminate at Ludhiana in Punjab. The Western Corridor connecting Dadri in Uttar Pradesh to Mumbai - Jawaharlal Nehru Port(JNPT), will traverse through NCR and the states of Haryana, Rajasthan, Gujarat and Maharashtra.

#### **Vision**

- To create a partnership with IR for retaining and expanding the market share of rail through efficient and reliable service with customer focus.

#### **Mission**

- To build a corridor with appropriate technology that enables Indian Railways to regain its market share of freight transport by creating additional capacity

and guaranteeing efficient, reliable, safe and cheaper options for mobility to its customers.

- To support the Government's initiatives toward ecological sustainability by encouraging users to adopt Railways as the most environment-friendly mode for their transportation requirements.
- DFC shall perform similar functions in respect of future phases of the DFCs, if any, including those connecting the other legs of the Golden Quadrilateral and its diagonals.

### **Objective of DFC**

- To create world-class rail infrastructure with advanced technology and knowledge to carry higher throughput per train.
- To improve overall transport efficiency.
- To offer customer guaranteed, faster transit, energy efficient, environment-friendly transport.
- To encourage total supply chain management.
- Reduce the unit cost of transport logistics.
- Increase Rail share in the freight market.

### **Mandate**

- Task of planning, construction and maintenance of infrastructure of the Dedicated Freight Corridors (DFC).
- Effective independence in decision-making and functions with a market focus and business orientation.
- Status of Railway Administration under the Railways Act 1989, to discharge the responsibility assigned to it under the concession agreement.
- Transfer of a minimum of 70% of freight traffic of Indian Railways to the DFCCIL.
- Track Access Charges from Indian Railways and other authorized rail operators in respect of construction and maintenance of the corridors.
- DFCC will provide non-discriminatory access to freight trains belonging to Indian Railways and other qualified operators.

### **Features of DFCC**

- DFC will provide Paradigm shift in freight operation with reduction in unit cost of transportation due to
- Less Operation and Maintenance Cost (O & M Cost)
- Lean organization with higher efficiency.
- Higher throughput per wagon and per train.
- Lower energy consumption.

### **Operating Features**

- Train Headway - 10 minutes
- End of Train Telemetry System(EOTT) - Trains to run without Guard
- Station spacing of 40 Kms
- Maximum Permissible Speed 100 KMPH
- Provision for Time Tabled Schedule Trains.
- Facility for long-haul operation
- Double Stack Container Train operation on WDFC increase throughput upto 360 TEU per train

### **Advanced Technology & Innovation**

- Unidirectional automatic signaling with 2 km inter-signal distance
- Stations with Electronic Inter-locking system with LED light Multi-aspect color light signals
- Mobile Radio Train Communication System (GSM-R)
- 2x25 KV, 50 Hz AT traction feeding system
- Usage of 60 kg curved thick web switches
- Ruling gradient in running track will be 1 into 200
- Distance between two TSS 60-80 km
- To run double stack containers on WDFC, the height of OHE is more than the conventional height
- To enhance safety, TPWS (Train Protection and Warning System) will be provided
- First time in India Mechanised laying of track by NTChas been adopted by DFCCIL
- Use of Canted Turnouts

### **Corridors of Industrial Growth**

#### **(I) Multi Modal Logistic Hubs**

The DFC network would attract setting up of Multimodal Logistics Parks along the corridor to facilitate value addition including packaging, retailing, labeling, pelletizing, transportation etc. The last mile connectivity in terms of door to door services will be provided to the customers by 3PL service providers. Logistics Hubs will be developed either by DFCCIL or in Joint Venture with suitable partner at different locations along the corridor.

#### **(II) Delhi-Mumbai Industrial Corridor (DMIC) & Amritsar-Delhi-Kolkata Industrial Corridor (ADKIC)**

Impact of DFCCIL is visible as a driver of Industrial Growth with planning and development of DMIC & ADKIC along the DFC. Industrial Corridors have been planned using the backbone of the DFC. DMIC/ ADKIC and DFCCIL are complementary to each other while Industrial Corridor will get benefits from the

World-Class Rail Infrastructure of the DFC, the traffic originating from the Industrialized Corridor will contribute significantly to traffic on the DFC.

### **Western DFC**

- Western Corridor comprising of 1502 km of a double line track from Jawahar Lal Nehru Port Trust to Dadri via Vadodara-Sanand-Palanpur-Phulera-Rewari. Alignment has been generally kept parallel to existing lines except provision of detours and entirely on a new alignment from Rewari to Dadri and also from Sanand to Vadodara.
- Western DFC will join Eastern Corridor at Dadri.
- The connectivity of WDFC with Indian Railways has been planned at Dadri, Prithala, Rewari, Ateli, Phulera, Bangurgram, Marwar, Palanpur, Chadotar, Mehsana, Sanand(N), Sanand(S), Makarpura, Udhna, Kharbao and JNPT.
- The Corridor will provide a boost to EXIM Trade. Traffic comprises of mainly EXIM containers, between Jawahar Lal Nehru Port Trust and Mumbai port and port of Pipavav, Mundra and Kandla and ICDs located in northern India. Besides this POL, imported Fertilizers, imported coal, Foodgrains, Cement, Salt, and Iron & Steel will have major contributions for traffic moving on the Corridor.
- Expected traffic over WDFC YEAR 2021-22: 152.24 (million tonnes).

### **Eastern DFC**

- The Eastern Corridor with a route length of 1840 km and consisting of the following distinct segments:
  - An electrified single line segment of 389 km between Ludhiana and Khurja
  - An electrified double line segment of 961 km between Khurja-Dadri-Mughalsari-Sonnagar.
  - An electrified double line segment of 549 km between Sonnagar to Dankuni.
- The junctions with Indian Railways on the Eastern Corridor have been planned at Chawapail, Sirhind, Sambhu, Kalanaur, Pilkhani, Dadri(U), Khurja, Daudkhan, Tundla, Bhaupur, Bhimsen, Kanpur, Karchchna, Ahraura Road, Mughalsarai, Ganjkhwaja, Sonnagar, Gomoh, Andal(W), Andal, Andal(E) and Dankuni. Temporary junctions are planned at Karwandiya, Sasaram and Durgawati. This corridor will have 58 crossing stations.
- Traffic on EDFC comprises of coal for the power plants in the northern region of India from Coalfields located in state of Bihar, Jharkhand and Bengal , finished steel, food grains, cement, fertilizer, limestone from Rajasthan to steel plants in the east and general goods.
- Expected traffic over EDFC YEAR 2021-22: 153.23 (million tonnes)

### **Funding Arrangement**

- Credit Rating of the DFCCIL is 'AAA' by CRISIL
- The total sanctioned cost of project is Rs. 81,459 crore (EDFC: Rs. 26,674 crore & WDFC: Rs. 46,718 crore)

- The entire cost of capital expenditure will be financed by the Ministry of Railways through Debt and Equity. The Debt-Equity Ratio is 3:1. Debt will be financed through loans from multilateral leading agencies.
- Loan for Western DFC has been arranged through Japan International Cooperation Agency (JICA) which is providing debt of Rs. 38,722 crore.
- Eastern DFC (Mughalsarai-Allahabad-Kanpur-Khurja-Dadri- & Khurja-Ludhiana) is being funded by World Bank through loan of US\$ 2.725 billion.
- Dankuni-Sonenagar section of Eastern DFC will be implemented through PPP.

### **Major Achievements since January 2015**

- Negotiation for EDFC-3 Project completed and loan amount of US\$ 650 Million sanctioned by World Bank on 30.06.2015.
- Signing of contracts worth Rs. 18,813 crores as against 13209 crore worth contract finalized during last 6 years.
- Tenfold increase in progress of Earthwork & Concreting in Rewari-Iqbalgarh section of WDFC.
- Threefold increase in progress of Earthwork & Concreting in Khurja-Kanpur section of EDFC.
- Track linking with Mechanized track laying machine started for the first time in India at Bhadan, Maitha & Daud khan in EDFC and Bhagega in WDFC.
- Engine rolling of Sasaram-Durgawati section done on 30.06.2015 after completion of Track & OHE Work.
- First junction arrangement with Indian Railways commissioned in June, 2015. Connectivity with Sasaram was established on 03.02.2016 and first electric loco trail run was effected on 09.02.2016 for New Sasaram- New Durgauti section.
- Sleeper plant at Bhagega in WDFC commissioned.
- Sleeper production in EDFC expedited from 1000/day to 1500/day.
- Welding of rails by Mobile Flash butt Welding plant commenced at Bhagega in WDFC.
- Movement of 260 m long rail started at Bhadan in EDFC.
- There has been threefold increase in utilization of funds compared to last year. An amount of Rs. 8400 crore is planned to be utilized in 2015-16 compared to only Rs. 2690 crore during 2014-15.

### **Environmental Clearances**

A number of pending environmental clearances received which includes:

- Permission under Aravali Eco Sensitive Zone in Haryana and Rajasthan,
- Second stage forest clearance for 60 ha land in Maharashtra,

- Permission from Bombay High Court for cutting mangroves,
- NOC from Archaeological Survey of India for construction through protected land in Greater Noida,
- Approval of Dahanu Taluka Environment Protection Authority (DTEPA) obtained,
- Permission of felling of trees near Sanjay Gandhi National Park obtained from NGT, Pune,
- Coastal Regulatory Zone clearance in Thane & Raigarh districts received.

### **Major Contracts Awarded since 2015**

- Civil contract – Mughalsarai-Kanpur (EDFC-2) – 402 kms
- Civil contract – Vaitarna-Makarpura (WDFC Phase-II) – 320 kms
- Electrical and S&T contract – Khurja-Kanpur (EDFC-1) – 343 kms
- Electrical contract – Rewari-Makarpura (WDFC Phase-I)- 947 kms
- Electrical Contract- Vadodara- JNPT (Mumbai) (WDFC- Phase II)- 422 kms
- S&T contract – Rewari-Makarpura (WDFC Phase-I)- 947 kms
- Special Bridge Package for WDFC
- Train Protection Warning System for WDFC
- It is further planned to award 80% of the contracts by March, 2016 and balance 20% by Oct., 2016 on both the Corridors.

### **Land Acquisition**

- Passing through 9 states, 61 districts and more than 2100 villages.
- Land for construction under DFCCIL is being acquired under the Railway Amendment Act (RAA) 2008.
- Out of total 11550 hectares land to be acquired for the Project, 87% of the land has already been acquired
- Most of environment clearances have been obtained
- 3864 Arbitration cases and 709 court cases pertaining to land disposed off till date.

### **Carbon Footprints**

DFC aims at to follow a low carbon path adopting various technological options which can help DFC to operate in a more energy-efficient fashion. As per detailed study on a Green House Gas (GHS) emission forecasting for a 30-year period Cumulative GHG emissions over the 30-year period in the case of no-DFC scenario would have been 582 million ton CO<sub>2</sub> while in the DFC scenario it would be 124.5 million ton CO<sub>2</sub>. This demonstrates that in absence of DFC implementation

approximately 4.5 times more GHG would be emitted in 30-year period for freight transportation envisaged on the Eastern and Western Corridor.

### **Future Corridors**

Ministry of Railways has assigned DFCCIL to undertake Preliminary Engineering & Traffic Survey (PETS) for four additional corridors as detailed below which is in progress.

- East-West Corridor (Kolkata-Mumbai) Approx 2330 Kms.
- North-South Corridor (Delhi-Chennai) Approx 2343 Kms.
- East Coast Corridor (Kharagpur-Vijaywada) 1100 Kms.
- Southern Corridor (Chennai-Goa) Approx 899 Kms.

### **Timelines**

Commissioning of the Corridor will start in segments starting from 2016.

#### **Western Corridor**

- Rewari-Iqbalgarh (655 km) June 2018
- Iqbalgarh-Vadodara ( 308 km) October 2019
- Vadodara-JNPT (430 km) October 2019
- Rewari-Dadri (127 km) October 2019

#### **Eastern Corridor**

- Mughalsarai-Sonnagar (126 km) December 2017
- Bhaupur-Khurja (342 km) March 2018
- Bhaupur-Mughalsarai (402 km) December 2018
- Dadri-Khurja (46 km) December 2018
- Khurja-Ludhiana (401 km) December 2019
- Sonnagar-Dankuni Based on finalisation of PPP Contract

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