

Indicative TOR for Non-Discriminatory Access on DFCCIL network

Background

1. The Indian Railways (IR) network spreads over 65000 route km and handles more than 1050 million tonnes of freight traffic annually. The volume of freight is poised to increase owing to the significant growth in traffic potential related to industrial production and GDP. Rail service is delivered by Zonal Railways that control the Divisions, which are the main functional units of Indian Railways.
2. Railway lines forming the “golden quadrilateral” connect the four cities of Delhi, Mumbai, Chennai and Kolkata. These lines comprise only 16% of route length, but move more than 60% of total traffic freight transported by IR. In 2007, GOI established the Dedicated Freight Corridors Corporation of India (DFCCIL) under the Companies Act of 1956, as a Special Purpose Vehicle, wholly owned by MOR. DFCCIL has been mandated to build and operate new Dedicated Freight Corridors (DFC) in the golden quadrilateral. The DFC will offer improved freight capability—higher axle load, 100 km/h speed, and absence of delays due to passenger train priorities or inadequate track capacity. The DFC will provide a quantum increase in rail transport capacity for meeting the rapidly growing freight transport demand of the country and help increasing the modal share of railways in India.
3. Two dedicated freight corridors are under construction: the Eastern Corridor extends from Sahnewal to Dankuni, and the Western Corridor extends from Dadri to Jawaharlal Nehru Port Terminals near Mumbai with total 3338 route km. Most of the conventional traffic on DFC will originate and/or terminate at stations located on the IR network or production/consumption centres outside DFCs. In time IR plans to upgrade more than 3000 km of feeder lines to handle heavier and longer trains using the DFCs.
4. The relationship between MOR and DFCCIL is governed by a concession agreement. Under this agreement DFCCIL builds, operates and maintains the infrastructure. MOR through IR uses the network, routing freight traffic over DFCCIL by providing freight wagons, locomotives and train crews and paying a track access charge. The concession agreement includes principles of track access charging:
 - Full cost recovery;
 - Structure includes (i) a fixed charge which will, at a minimum cover debt servicing and repayment of loan obligations, return on equity (nominal in initial years), interest on working capital and other fixed organizational costs, (ii) a variable charge levied based on gross ton-km, and (iii) additional provision for rewards and penalties.
5. At first, IR will be the only authorized rail user of the DFCs. However, the concession agreement includes the possibility that in the future MOR will establish standards for qualifying multiple Authorized Rail Users and the DFCs will be open to all Authorized Rail Users on a non-discriminatory basis.

Objective of the Study

6. The objectives of the study are to (i) consider options for institutional arrangement for providing non-discriminatory access for rail freight train operations; (ii) analyze international experience with non-

discriminatory access for freight train operations and suggest a practical system(s) suitable for application in the Indian context, (iii) establish a detailed methodology for setting track access charges at start up, and (iv) identify how the institutional arrangements for licensing, regulation of traffic, capacity allocation and safety, including the methodology for calculating track access charges, would need to change to accommodate multiple users.

Scope of Work

7. **Non-Discriminatory Access.** Review freight railway track access arrangements worldwide (e.g., Australia, Canada, members of the European Commission, Russian and USA) and in other network industries (e.g., power transmission, telecommunications) in India. This review should consider institutional arrangements from the ownership angle and processes for licensing Authorized Rail Users and providing non-discriminatory access including the issues of preferential traffic.

8. **Track Access Charge-Initial.** Based on the global experience of access arrangements, review the options for setting the initial track access charge for DFC, when the Authorized Rail User(s) is IR or its Zonal Railways. After consultation with DFCCIL and MOR, recommend the modifications in approach, if any, that is most appropriate for India. This analysis should cover:

- Methodology: Within the principles established in the Concession Agreement, the methodology should create incentives for
 - (i) IR to maximize use of DFCCIL capacity and for
 - (ii) DFCCIL to attract
 - a. business from IR by providing high quality, cost effective service.
 - b. additional business by providing value added customized services to utilize capacity created on DFC.

The review should address (i) whether the track access charge should include any price differentiation for different types of service (different speeds, different times-of-day, different reliability guarantee); (ii) whether the track access charge should include any price differentiation for different commodities (e.g., Ramsey pricing); and (iii) what performance incentives should be included in the charge.

- Institutional Arrangements: The institutional arrangements should indicate what entity should be responsible for calculating the track access charge according to the established methodology and what entity should review or regulate the charges.
 - Process: The process should indicate how often the charge should be reviewed or adjusted and what review or adjustment process should be followed.
9. **Track Access Charge-Non-Discriminatory Access.** Based on the review of freight access arrangements, analyze the options for setting the track access charge for DFCs, Indian Railways

feeder lines¹ to the DFCs, and supporting terminal facilities after non-discriminatory access regime is introduced and authorized rail users may include entities that are not affiliated with IR. After consultation with DFCCIL and MOR, recommend the approach that is most appropriate for India. This analysis should cover:

- **Methodology:** Within the principles established in the Concession Agreement, the methodology should create incentives for (i) Authorized Rail Users to make full use of DFCCIL capacity and for (ii) DFCCIL to attract business from Authorized Rail Users by providing high quality, cost effective service. The review should address (i) whether the track access charge should include any price differentiation for different types of service (different speeds, different times-of-day, different reliability guarantee, traffic type and level of traffic on feeder routes); (ii) whether the track access charge should include any price differentiation for different commodities (e.g., Ramsey pricing); and (iii) what performance incentives should be included in the charge.
- **Institutional Arrangements:** Once non-discriminatory access is adopted, the institutional arrangements should indicate what entity should be responsible for calculating the track access charge according to the established methodology and entity (e.g., rail regulation, competition agency) should review or regulate the charges. Proposals should be drawn up in the context of the existing structure of vertically integrated zonal railways outside the DFC network.
- **Process:** Once non-discriminatory access is adopted, the process should indicate how often the charge should be reviewed or adjusted and what review or adjustment process should be followed.

10. **Allocating Track Capacity.** Based on the review of access arrangements, analyze the options for allocating track capacity on DFCs and feeder lines, taking account existing and projected passenger traffic on feeder lines. After consultation with DFCCIL and MOR, recommend the approach that is most appropriate for India. This approach should consider “Order of Preference” for trains on Indian Railways in which certain classes of traffic will continue to have priority during train movement.² This Analysis should cover:

- **Methodology:** The methodology should indicate how the demands for track access should be communicated to DFCCIL and what process DFCCIL should use for resolving any conflicts in demands (e.g., priority by service type, commodity, bidding process for slots). Indicate whether the methodology should change after non-discriminatory access is adopted, and if so, how it would change.
- **Process:** The process should indicate how often the allocation of capacity should be made and reviewed. Should any review be complaints based or periodic? Indicate whether the

¹ Consultant is not expected to develop charges specific to each feeder line. Rather, charges should be provided for a limited number of line types based on standards of infrastructure and capacity utilization.

² For example, military traffic, economically critical commodities.

methodology should change after non-discriminatory access is adopted, and if so, how it would change.

11. **Licensing.** Based on the review of access arrangements, analyze the options for licensing Authorized Rail Users. After consultation with DFCCIL and MOR, recommend the approach that is most appropriate for India. This Analysis should cover:

- Institutional Arrangements: The institutional arrangements should indicate what entity(ies) should be responsible for licensing Authorized Rail Users on DFC and feeder route, once non-discriminatory access is adopted from the angle of ownership (i.e. whether DFCCIL or MOR-owned line).
- Methodology: The methodology should indicate the basis and criteria for determining whether an entity should be licensed, including standards for good reputation, financial fitness, professional competence and adequate insurance.
- Process: The process should indicate clearly an efficient and effective process for licensing.

12. **Safety.** Based on the review of access arrangements, analyze the options for ensuring safety of infrastructure and rolling stock on the DFCs. After consultation with DFCCIL and MOR, recommend the approach that is most appropriate for India. This Analysis should cover:

- Institutional Arrangements. The institutional arrangements should indicate what entities should be responsible for safety of trains on the DFCCIL and the responsibilities assigned to each entity. Indicate whether the institutional arrangements should change after non-discriminatory access is adopted, and if so, how they would change keeping in view the existing statutory bodies and their future role.
- Methodology and Process: The methodology and process should indicate the basis for determining the adequacy of the safety system (e.g., safety case/oversight, rules/inspectors) and oversight of the implementation of the system. Recommend various preventative measures including monetary penalty system in case of for violation in prescribed safety standard and procedure by Authorised Rail Users. Indicate whether the methodology and process should change after non-discriminatory access is adopted, and if so, how they would change.

13. **Transitional Issues.** Non-discriminatory access will raise a number of issues for the structure of the rail industry in India. These include:

- If MOR has a role in regulating licensing, access tariffs, safety or capacity allocation, also being the supervisor of IR may create a conflict of interest. Would MOR need to be separated from institutions responsible for economic and safety regulation and licensing to implement non-discriminatory access? What changes to the legal framework are needed to enable non-discriminatory access to be effective?

- Since most DFC traffic will originate and/or terminate off the DFC, identify systems and facilities needed to be provided to achieve a smooth interface between IR and DFC at interchange points. The consultant shall provide broad solutions to this problem for at least two interchange point, identified by DFCCIL, between DFC and IR.
- How will traffic be handled by Authorized Rail Users other than zonal railways moving from origin/destination to/from the DFC? IR lines are congested, would additional line capacity, terminal capacity or other investments be necessary to enable IR to manage the increase in freight traffic to/from the DFC? The consultant shall provide broad solutions to this problem.

14. The consultant should identify the key issues and propose broad solutions. After consultation with DFCCIL and MOR, the consultant should prepare an action plan with indicative timing that could be followed after a decision to implement non-discriminatory access.

Deliverables

15. **Inception Report.** The consultant shall prepare an inception report that (i) summarizes the consultant's initial client consultations; (ii) confirms the Consultant's management and team organogram (including management of each task) as contained in the proposal; detailing of the entire assignment in tasks, sub-tasks and other elements; and (iii) indicates whether any initial findings would suggest consideration of changes in the consultant's proposed work plan.
16. **Non-Discriminatory Access Report.** The consultant shall prepare a Non-Discriminatory Access Report that assesses approaches to non-discriminatory access and provides a practical, straightforward and India-specific methodology for establishing the initial track access charges for DFC.
17. **Consultations.** The consultant shall review and discuss the findings of the Non-Discriminatory Access Report with MOR, DFCCIL and other stakeholders.
18. **Draft Final Report.** The consultant shall prepare a report covering all tasks in the scope of work.
19. **Consultations & Workshop.** The consultant shall review and discuss the findings of the draft final report with MOR, DFCCIL and other stakeholders and arrange a one day workshop to present the findings of the study.
20. **Final Report.** The consultant shall prepare a final report that incorporates the findings of the Non-Discriminatory Access Report, the Draft Final Report and the consultations.
21. The total duration of the consultancy is expected to be six(6) months and carried out according to the following schedule.

Report	Timing
Report	Contract signing + one month
Non-Discriminatory Access Report	Contract signing + two months Comments on this report will be provided within two weeks
Draft Final Report	Contract signing + five months Comments on this report will be provided within two weeks
Final Report	Contract signing + 6 months

Skills and Composition of Consultancy Team

- 22.** The consultant shall assemble a team for undertaking the scope of work and tasks described above. In responding to the Terms of Reference, consultancy organizations shall provide curriculum vitae, roles and responsibilities and a written assurance of the named staff that will be working on this assignment.
- 23.** All the prospective Consultants shall have sufficient qualified personnel and resources to accomplish all the services described herein within the prescribed time. The Consultant shall be capable of providing all necessary professional, technical, and expert services as required to complete all the elements of the Scope of Work.
- 24.** The proposed project team should consist of the following minimum personnel. The bidder may include additional experts in the team as considered appropriate.
- 25. Rail Access (Institutional) Specialist/Team Leader:** The institutional specialist will have a minimum of 10 years of international experience working in various aspects of managing the institutional aspects of railway and network industry access (as railway operator, regulator, etc.).³ S/he will have relevant professional qualifications and post graduate education in a field such as law or economics.
- 26. Tariff Specialist:** The institutional specialist will have a minimum of 10 years of international experience working in various aspects of determining access tariffs (as railway operator, regulator, etc.). S/he will have relevant professional qualifications and post graduate education in a field such as economics, finance or accounting.
- 27. Railway Expert:** The railway expert will have a minimum of 10 years of experience working in various aspects of Indian rail operations and facilities planning and knowledge of the institutional arrangements of the Indian rail sector. S/he will have relevant professional qualifications and education in a field such as, economics, operations research or business management.

³ International experience does not refer to nationality. Rather, it means experience in at least two countries outside India.