

DETAILS OF IMPLEMENTATION ARRANGEMENTS

A. Contractual Structure

1. (Confidential information redacted.)

2. The main sources of revenue for G R Infraprojects Limited (GRIL) are the engineering, procurement, and construction (EPC) contracts and the hybrid annuity model (HAM) projects it implements projects for central government authorities such as the National Highways Authority of India (NHAI), state and municipal road authorities, and Indian Railways. The majority of these contracts are awarded through a competitive bidding process that has a technical qualification round as well as a financial bid round. The lowest bidder in the financial round is awarded the contract. After a project is awarded, it undergoes financial closure and site-clearing activities, such as utility shifting, rehabilitation, and resettlement. In the case of build–operate–transfer projects, the execution of a road project typically starts 9–12 months after it is awarded, as the developer is provided 150 days after signing the concession agreement to achieve financial closure. EPC projects take less time to start execution, typically about 6 months.

3. The model concession agreement for the EPC contract requires the successful bidder to commence work immediately. (Confidential information redacted.) Payment under the contract is made monthly depending on the percentage of work completed and certified by the independent engineer appointed by the contracting authority. Of the contract value, 5% is withheld in the form of retention payment by the contracting authority and released after the completion of the project. The contractor (such as GRIL) is required to provide a performance bank guarantee (5% of EPC value) on issuance of a letter of award to be valid until the completion of the defect liabilities period of 5 years after commissioning of the project. Other guarantees to be provided include the bid security bond (which is returned after bid opening). The NHAI also provides contractors an option to take 10% of the contract cost as a mobilization advance after submitting a mobilization advance guarantee of 11% of the contract price. Land acquisition is the responsibility of NHAI. Any shortfall in availability of land (during the construction period) can result in descoping of the project.

4. The HAM format is a mix of traditional EPC and build–operate–transfer (annuity) procurement modes. The bid assessment parameter used by the NHAI is the net present value of the bid project cost and operation and maintenance (O&M) costs quoted as part of the bid.¹ The concession period consists of the construction period, which is project specific, with a fixed operations period of 15 years thereafter. The concessionaire is responsible for the maintenance of the project until the end of the concession period. In 2020, the Ministry of Road Transport and Highways and the NHAI made several amendments to the HAM model concession agreement aimed at protecting developers' returns and easing their liquidity.² During construction of a project, the NHAI provides a capital grant equal to 40% of the bid project cost, adjusted for a price index multiple (PIM)³ in 10 equal installments of 4% each (based on physical completion milestones). The concessionaire initially bears the balance (about 60%) of the project cost through a combination of debt and equity. As per the concession agreement, the responsibility for land

¹ Bid project cost is the estimated construction cost quoted as part of the bid.

² Key revisions include the following: (i) the number of milestone payments increased to 10 (each equal to 4% of the bid cost) from 5 (8% of the bid cost), (ii) the sponsor to hold 26% of equity during construction and for 6 months thereafter (previously this was for 2 years post construction), and (iii) interest on annuity changed to the 1-year MCLR of commercial banks plus 1.25% from the Reserve Bank of India-determined bank rate plus 3% (applicable for HAM projects awarded before 10 November 2020). The bank rate is the rate at which the Reserve Bank of India lends money to banks without any collateral.

³ Escalated at 70% of the wholesale price index and 30% of the consumer price index.

acquisition is explicitly with the NHAI. The NHAI provides 80% of the right-of-way prior to the start of construction of the project and the balance within 3 months thereafter. If the NHAI is unable to provide the remaining right-of-way within 6 months of the appointed date (notice to proceed for construction), then the scope of work of the project is reduced accordingly.

5. The revenue stream consists of (i) the remaining 60% bid project cost, adjusted for a PIM, payable as annuity in 30 unequal semiannual installments by the NHAI (in accordance with the payment schedule in the concession agreement); (ii) the average of the 1-year marginal cost of funds-based lending rate (MCLR) (at 7.21% as on 31 August 2021) of the top five commercial banks plus 1.25% on the unpaid annuity balance;⁴ and (iii) the base O&M cost quoted as part of the bid, adjusted for a PIM. The MCLR is the minimum lending rate, below which a bank is not permitted to lend. The MCLR is a tenor-linked internal benchmark and is calculated based on four components: (i) the marginal cost of funds, (ii) a negative carry because of the cash reserve ratio to be maintained, (iii) operation costs, and (iv) the tenor premium. An increase in the MCLR would lead to an increase in lending rates by banks to their customers. Hence, HAM projects are insulated from traffic and toll risk, the risk of inflation on O&M expenses, and interest rate changes (to a certain extent).

B. Management

6. GRIL is managed by the Agarwal family, based in Udaipur, Rajasthan. Gumani Ram Agarwal started road construction activities as contractor of the public works department of the Government of Rajasthan in 1970. In 1995, he started GRIL with a vision to build a larger road construction platform. The Agarwal family owns 86.54% shareholding in GRIL, with the balance held by public investors. Vinod Kumar Agarwal, son of Gumani Ram Agarwal, is the chair of GRIL and has more than 3 decades of experience in the road construction industry. The company was listed on the National Stock Exchange of India and the Bombay Stock Exchange on 19 July 2021. It had a market capitalization of \$2.14 billion on 13 September 2021. The board of GRIL has eight directors, comprising four executive directors (three of whom are from the promoter family) and four independent nonexecutive directors.

C. Operations Arrangement

7. **Project management team.** GRIL has an experienced team of professionals supported by the promoter family that looks after the entire execution of the project. A separate site team is created for each project. Based on the scope of the project, separate teams are created for each item (e.g., structures, highways), headed by a project manager reporting to the project director. The project director oversees a portfolio of projects, especially in the areas of planning and financial management. The project manager drives the end-to-end planning and execution of the project and is responsible for ensuring delivery in line with the quality and safety standards, with minimum wastage. Each site team provides daily reports on progress at the site. Senior management oversees the entire process. The project management team is supported by all the departments that are involved in the planning of a project, including the design and engineering, procurement, manufacturing, quality control, logistics, and on-site teams. Based on the work schedule, each department coordinates with the project management team in planning for efficient use of available resources for project execution.

⁴ The NHAI declare the list of the top five scheduled commercial banks on 1 September every year based on the balance sheet size declared in their annual reports. The 1-year MCLR of these banks is taken at the start of every quarter.

8. **Own equipment and backwards integration.** GRIL has acquired a significant equipment base, which increased from 1,800 pieces of equipment at the end of fiscal year 2016 (ended March 2016) to 7,000 at the end of fiscal year 2021. GRIL views productive equipment asset management as a critical element in executing projects in a timely manner. The strategic investment in equipment assets provides GRIL with a competitive advantage, as it enables rapid mobilization of equipment, thereby reducing project execution time. The manufacturing facilities cater to the key components that GRIL requires in the construction and execution of projects. The company's vehicle fleet facilitates timely transportation of key raw materials for construction (e.g., bitumen emulsion and diesel), which reduces theft and promotes quality control. GRIL also has a workshop in Udaipur, Rajasthan, where it undertakes major repairs and maintenance of its construction equipment and vehicles. In-house repair and maintenance of equipment and vehicles reduces downtime, which further facilitates achieving early completion of projects. GRIL has entered into rate contracts with equipment manufacturers, which ensures faster decision-making and arrangement of spare parts on short notice.

9. **In-house design and engineering team.** GRIL has an in-house central design and engineering team. The design department is further segmented into pavement design, highway design, and structure design sections. Each section is headed by an experienced designer. The design and engineering team is involved in the planning and execution of projects from the pre-bidding stage. At the pre-bidding stage, the team prepares a basic design to facilitate preparation of estimates of quantities of raw materials that will be required for construction of the project. Upon the award of a project, the various sections of the design and engineering team plan and coordinate to work toward efficiently completing the design elements of a project. Once the predesign activities such as surveys and site investigation are carried out, the design and engineering team prepares a quality assurance plan for detailed design and planning, based on the terms of the contract as well as the result of the surveys carried out. The final detailing and designing are done by the designers of different sections to ensure quality and timely project execution.

10. **Procurement.** The central procurement team based at the corporate office at Gurugram handles the procurement of major raw materials and engineering items like cement, steel, construction chemicals, bridge bearings, bitumen, highway and runway lighting, and steel girders. GRIL procures materials in bulk, which has resulted in production economies and has helped develop relationships with vendors. The project sites have procurement managers who understand and oversee the local material requirements and report these to specific project managers, enabling a personalized understanding of material requirements on a project-by-project basis.

D. Project Performance Monitoring, Reporting, and Evaluation

11. GRIL will be required to submit semiannual unaudited financial statements and an annual audited financial statement to the Asian Development Bank. GRIL will also be required to submit an annual safeguards and social monitoring report. The project will be evaluated at two levels: (i) the success of the project, including its completion; and (ii) impacts beyond the project, including its contribution to job creation. The performance indicators are in the design and monitoring framework.