

Investment Opportunities in the Indian Infrastructure and Energy Sector

The Indian infrastructure and energy sector comprising roads and urban development, airports, energy, shipping and ports, and electricity has become a key driver of the Indian economy over the last five years. By adopting an international competitive bidding process, allowing external commercial borrowings, providing development incentives like tax holidays, and facilitating statutory clearances the government of India has opened up opportunities in the sector as never seen before. This presents a compelling investment opportunity for US and European project developers, infrastructure and power equipment companies as well as financial investors.



In the Eleventh Five Year Plan starting 2007, the government of India's projected investment requirement is valued at about INR 20,272 billion (US\$500 billion) (conversion factor: 1US\$=Rs41.00 used for all estimates of Planning Commission and related analysis) and expected annual GDP growth rate of 9% each year.

Key Sectors

Roads

India has one of the largest road networks in the world, aggregating to about 3.3 million kilometres at present. The country's road network comprises 66,590 kilometres of national highways ("NHs") and expressways (200 kilometres); 131,899 km of state highways, 467,763 km of major district roads and other roads and about 2,650,000 km of rural roads.

Roads carry about 65% of the freight and 80% of the passenger traffic.

The Government of India plans to spend about US\$10 billion per annum on road development over the next five years. This includes work on the ambitious 7-phase National Highway Development Project ("NHDP"), India's largest road project ever. Phase II, III and IV are under implementation. The government through the National Highways Authority of India ("NHAI") is using a variety of contractual structures in moving towards public private partnerships ("PPP") in roads projects. As a matter of policy, the government has decided to take-up future phases of NHDP proposals mainly on a PPP basis. The major deterrent to private sector participation is the huge upfront capital investment and high risks of revenue collection. To address this, the government has decided to offer some projects on annuity basis. The NHAI has also formed special purpose vehicles ("SPVs") for funding road projects. SPVs are separate legal entities formed under the Companies Act, 1956. It involves some cash support from the NHAI in the form of equity / debt; while the rest of funds come from ports / financial institutions / beneficiary organisations in the form of equity / debt. 100% FDI under the automatic route is permitted for all road development projects. Incentives include 100% income tax exemption for a period of 10 years and availability of grant / gap funding by NHAI for marginal projects. Model concession agreements are already formulated.

Investment opportunities exist in a range of projects being tendered by NHAI for implementing the remaining phases of the NHDP – contracts are for construction or Built-Operate-Transfer basis depending on the section being tendered. Over US\$76 billion investment is required over the next 5 years to improve road infrastructure and Road sector investments expected to grow at 19% per annum.

US and European companies can tap opportunities in construction equipment (earth moving, material handling equipment, etc.), tolling equipment services and advisory (architecture, structural design, soil investigation, etc.).

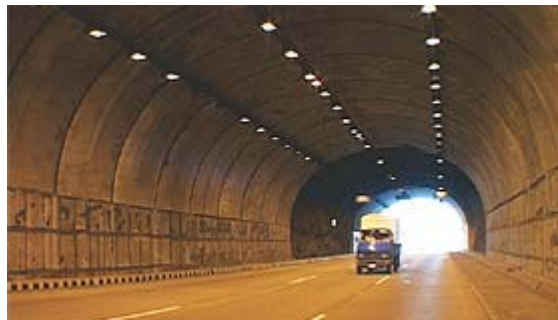
Ports

Ports play an important role in the Indian economy. Approximately 95% of India's international trade by volume and 70% by value is seaborne. India has 12 major and 187 minor / intermediate ports along its coastline of around 7,517 kilometres. 80% of the port traffic by volume is dry and liquid bulk, remaining 20% is general cargo, including containers. Oil and products' traffic is the major form of liquid bulk traffic, accounting for around 33% of total major ports traffic. Other major traffic comprises iron ore (18%), and coal (13%). Containerised cargo has grown at a rate of 15% per annum over the last 5 years while cargo handled by major ports has increased by 10.4% per annum over last three years.

The National Maritime Development Policy ("NMDP") has identified fund requirement of US\$18 billion over the XIth plan period to boost port infrastructure. 67% of the proposed investments in major ports are envisaged from private players. Two major government projects underway include project Sethusamundram (dredging of the Palk Strait in Southern India to facilitate maritime trade through it) and project Sagarmala (a US\$22 billion project for the modernisation of major and minor ports). Significant investments in port terminals on BOT basis by foreign companies include Maersk (Mumbai), Dubai Ports International (Mumbai, Chennai, Vizag and Kochi), Maersk (Pipavav Port) and PSA (Tuticorin, Chennai). 100% FDI under the automatic route is permitted for port development projects and there is 100% income tax exemption for a period of 10 years.

Opportunities exist for US and European companies in the development of greenfield

ports, development of container and bulk terminals, creation of Logistics infrastructure, dredging services, supply of port related equipment and ship building, ship repair and maritime training.



Urban Infrastructure

About 60% of India's GDP originates from urban areas. As per Census 2001, only 28% of the 1.1 billion Indians live in urban areas, however, this is expected to increase to 40% by 2012. The country's frenetically growing cities and towns face major challenges in creating adequate infrastructure including in the transportation, communications, solid waste, water, and power sectors. If economic growth is not to be constrained, India has to make faster progress in urban development by investing in public goods and services, including through the Jawaharlal Nehru National Urban Renewal Mission ("JNNURM"). Investments of more than US\$50 billion would be required in the next 5 years to improve and build urban infrastructure.

Government of India has allocated about US\$12 billion under JNNURM for a period of 7 years for improving urban infrastructure across 63 cities. 47.5% percent of this fund is allocated to key metro cities of Mumbai, Kolkata, Delhi, Bengaluru, Chennai, Hyderabad and Ahmedabad.

Since a large component of development work will be through public-private partnership there are opportunities for US and European companies to partner with Urban Local Bodies ("ULB") in development of urban infrastructure

such as Water supply and sanitation, Slum redevelopment, Urban transportation (including roads, highways, expressways, Mass Rapid Transport Systems (“MRTS”) and metro projects) and Solid waste management. Mass Rapid Transport Systems (“MRTS”) of many major cities such as Bengaluru, Chennai, Kolkata and Hyderabad are already being implemented or expanded through the PPP route.



Power

India’s generation capacity currently stands at 154 GW, while India’s Transmission & Distribution network of 6.6 million circuit kilometres is the third largest in the world. The per capita consumption of power in India has increased from 567 kWh/year in 2002-03 to 704 kWh/year in 2007-08, at a CAGR of 4.4% during the same period. Private sector participation is increasing especially in Generation and Distribution. Distribution licences for several cities are already with the private sector and recently three large ultra-mega power projects of 4,000MW each have been awarded to the private sector on the basis of global tenders.

The total investment in the Power (electricity) sector during the Eleventh Plan is estimated to be approximately US\$150 billion. The estimate is based on the assumption that Central investment in the Eleventh Plan will grow at a CAGR of 15% and States’ investment at 38% in view of the thrust on augmenting distribution systems and rural electrification. Private investment is expected to grow at 24% in the backdrop of the focus particularly on the

upcoming nine Ultra Mega Power Projects each with a capacity of 4,000 MW whose implementation is planned to be initiated in the Eleventh Plan. 100% FDI is permitted in Generation, Transmission & Distribution. To attract FDI, income tax holiday is provided for a block of 10 years in the first 15 years of operation and there is waiver of capital goods’ import duties on mega power projects (power projects above 1,000 MW generation capacity).

The low per capita consumption of electric power in India compared to the world average presents a significant potential for sustainable growth in the demand for electric power in India. According to the 17th Electric Power Survey, May 2007 (“EPS”), India’s peak demand is expected to grow at a CAGR of 7.6% over a period of 10 years (FY2007 to FY2017) and would require a generating capacity of 300 GW by 2017 to cater to this demand. India requires an additional 78,000 MW of generation capacity by 2012. A corresponding investment is required in Transmission and Distribution networks. Opportunities for US and European companies are tremendous in all aspects of generation, transmission and distribution.

Conclusion

The ongoing US\$500 billion investments in Indian infrastructure provide significant opportunities for US and European strategic and financial investors. Key factors driving Indian investment opportunities include improved macro-economic fundamentals, increased ability to pay for infrastructure services, progress towards full cost recovery with use of efficient subsidies, gradually improving access to both foreign and domestic capital, gradually improving access to long term financing, fiscal incentives (such as tax rebates) and increasing clarity in policy and regulatory frameworks.

FACT SHEET

ABOUT US

IMaCS Virtus Global Partners, Inc. is a New York based advisory firm that offers services to North American companies and funds seeking India related growth and investment opportunities. The firm is a joint venture between Virtus Global Partners and ICRA Management Consulting Services Limited, which is a fully-owned subsidiary of ICRA Limited, one of India's leading credit rating agencies.

Our mission is to enable our clients to transform their business by adding India as a key part of their global footprint. Our clients benefit from our local presence, strong relationships, knowledge of local business practice, experience, and financial expertise.

OUR PROFESSIONALS

Our team possesses a deep understanding of the business environment, both in the US and India and is well connected with companies, financial institutions, governmental agencies, and private equity firms in both markets. We have an established track record of over 15 years and 1,000 engagements providing advisory services to a diversified client base across energy, manufacturing, infrastructure, and retail. We also work with multilateral and bilateral government agencies, banks and financial institutions, and regulators. We are headquartered in New York with eight offices in India.

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- Market Strategy

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- Target Identification
- Price Negotiations
- Synergy Valuation
- Deal Structuring

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- Concession Agreements
- Financial Modeling
- Contract Preparation

Operations Setup and Support

- Location Assessment
- Organization Design
- Business Structure Setup
- Risk Management

Market Assessment

- Demand Assessment
- Industry Landscape Analysis
- Competition Assessment
- Customer Acquisition Strategy

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Below is a partial list of our engagements in India for North American and European companies:

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- Business feasibility and India entry strategy for a leading North American Bank for the mortgage finance business in India
- Market analysis and Product pricing strategy for launch of commercial vehicles in India by a global OEM.
- Financial evaluation of vendors for an international automobile company setting up a joint venture in India.
- Formulating an India entry strategy and business plan for a global monoline insurance company.
- Market study and Commercial viability assessment for setting up a 150 MW Lignite Based Power Project in India for an international developer of power projects.
- Formulating an India entry strategy for a leading global bank.
- Assessment and Due diligence of joint venture partner for an international power project investor
- Market Assessment of commercial vehicles gearbox and seatbelts in India for a leading international auto-component manufacturer.
- Financial assessment and valuation of India based utility companies for an international strategic investor seeking acquisition of stake in a State Owned Public Sector Utility

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