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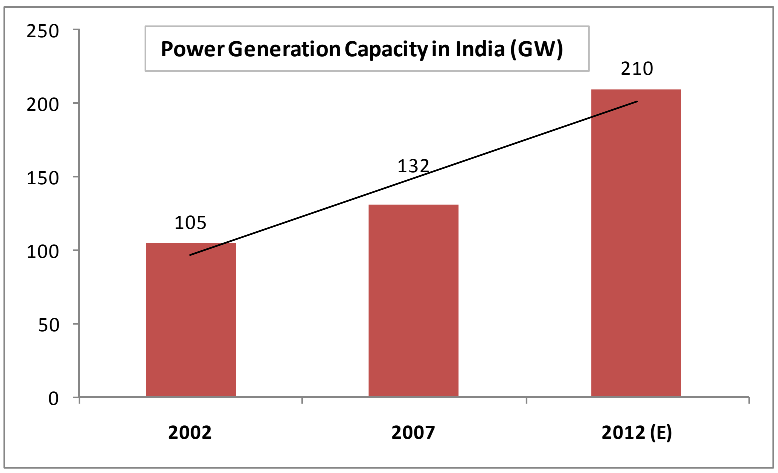
Indian Energy Market Opportunities for US Companies

With a generation capacity of 141 GW, India has the fifth largest electricity generation capacity in the world. India's Transmission & Distribution (T&D) network of 6.6 million circuit km is the third largest in the world.

According to the Integrated Energy Policy report released by the Indian government, estimated energy requirements will reach approximately 950,000 MW in the year 2030. The government has been promoting public – private partnerships to meet the estimated $1.2 trillion investment required over the next 25 years to provide electricity to consumers at an affordable cost. The U.S. continues to be one of the largest exporters of generation and transmission equipment to India along with Germany, Japan and the U.K.



A review conducted by IVG Partners on Thermal and Coal based projects shows a projects pipeline of about 101 projects amounting to over 115,000 MW of capacity in various stages of planning and commissioning the above plan estimates are backed by action on the ground. The above pipeline translates to an average size of about 1137 MW of capacity indicating a significant increase in size and complexity of these plants.

Given these conditions, there are excellent prospects for North American companies in energy efficient compressors, boilers, turbines, combined cycle power production, heat recovery technology, process control systems, hydraulics, cogeneration equipment, meters, sensors/ controls, heating/cooling (HVAC) systems, lighting units, pumps, appliances, steam systems/generators, and related IT and energy services. As the demand for Transmission & Distribution equipment is expected to grow rapidly, North American power equipment suppliers will also find significant sales opportunities in power distribution transformers, high voltage power cables, relays, conductors, capacitors, circuit breakers and related equipments.

Indian Energy Market Overview

Both government and private sector firms generate electric power in India. National Hydroelectric Power Corporation, National Thermal Power Corporation and various state level corporations (state electricity boards - SEBs) are the major power generators. T&D is provided by the State Electricity Boards (SEBs) or private companies. There has been significant improvement in the growth of actual generation over the last few years. The total installed capacity as of March 31st, 2009 is about 147 000 MW, of which private sector companies produce about 13.5% , central government own 34% and the remaining 52.5% is produced by various state governments. However, the current electric power supply is 30% less than the demand.

Factors Driving Growth

With responsibility for electricity supply shared between the central and the state governments, the Government of India (GOI) has placed increased emphasis on improving the efficiency of supply, consumption, and pricing of electricity.

The Indian government, with World Bank assistance, has been encouraging the states to undertake in-depth power sector reforms. This involves establishing an independent regulatory framework for the sector, progressively reducing subsidies and restoring the creditworthiness of the utilities through financial restructuring and cost-recovery based tariffs, and divesting existing distribution assets to private operators.

Power sector reforms are critical for providing the impetus to states' economic growth and for redirecting public spending to priority areas. The government of India has set an ambitious goal, which is to provide power for all by 2012. This mission would require that the installed generation capacity should be at least 200,000 MW by 2012 from the present level of 147,000 MW. The power requirement will double by 2020 to 400,000 MW. About one-fourth to one-third of this growth will come from Independent Power Producers (IPPs), with the rest coming from the public sector. It is estimated that building 100,000 MW in additional power capacities and associated transmission & distribution infrastructure will require an investment of $170 billion.

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ABOUT US

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

We are headquartered in New York with eight offices in India.

INDIA ADVISORY PRACTICE

The Energy Practice of IVG Partners works with public and private sector utilities, OEMs, EPC, power developers, investors, and government agencies on assignments related to Indian thermal plants, electricity, renewable energy, and the oil & gas sectors. It also provides India related Strategy & Roadmap Consulting, Customer/ Partner Identification and Approach, Risk Management, Operation Setup & Support, and Project/ Bid Advisory.

We have carried out over 300 engagements in the Power sector and our clients include:

- 8 of top 10 Private Power Companies in India
- Electricity Regulators in over 10 Indian states
- Over 20 Electricity Utilities
- Major Indian Public Sector Units in Oil & Energy sectors
- Leading Global and Indian Equipment Manufacturers

We also work with multilateral and bilateral government agencies such as USAID, World Bank, ADB and local regulatory agencies.

OUR SERVICES

Power Generation, Transmission & Distribution | Equipments | Engineering | Renewable

India Entry Advisory

- Market , Demand & Competition Analysis
- Customer and Partner Meetings
- Sales and Sourcing Strategy
- India Strategy & Investment Roadmap

Partner Search

- Partner Identification and Meetings
- Partner Due Diligence
- Joint Implementation Plans
- Structuring & Negotiating Agreement

Operation Setup & Support

- Location Assessment
- Business Structure Setup
- Organization Design
- Operations Support
- Project/ Bid Advisory

Risk Management

- Structuring Solutions to Address Payment and Other Risks
- Credit Risk Assessment
- Financial Assessment of Customers & Partners
- Local Regulatory Compliance

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REPRESENTATIVE EXPERIENCE

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

- India Entry Strategy for a global power developer, including location assessment, investment roadmap, and partner search
- Risk Assessment of a copper cathode manufacturing project for a financial investor that included market, technical, business, and financial risks
- India Market Study and Commercial Viability Assessment for setting up a 150 MW power plant in India for a global power generation company
- Preparation of India Entry Strategy for a leading global EPC contractor, including power sector policy and regulatory framework, market size, and investment/ implementation roadmap
- Assessment and Due Diligence of joint venture partner for a global power project investor
- Assistance in developing a cost-to-serve model for a leading power distribution company, including collection of field data, consumer based load curve, and voltage-level losses
- Entry Strategy into the gas transportation business, including analysis of bulk supply to industrial consumers, availability, and price elasticity of gas
- Contracting strategy for a proposed coal based power plant, including demand-supply situation, simulation of merit order situation, assessment of financial health of utilities and market analysis
- Power sector financing and strategy study for the Asian Development Bank (ADB)

REPRESENTATIVE GLOBAL CLIENTS IN POWER

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