

# POWERELEC

INDIA

International Power, Electrical & Electronics Expo  
24 - 26 October 2016 | B C E C , Mumbai - India



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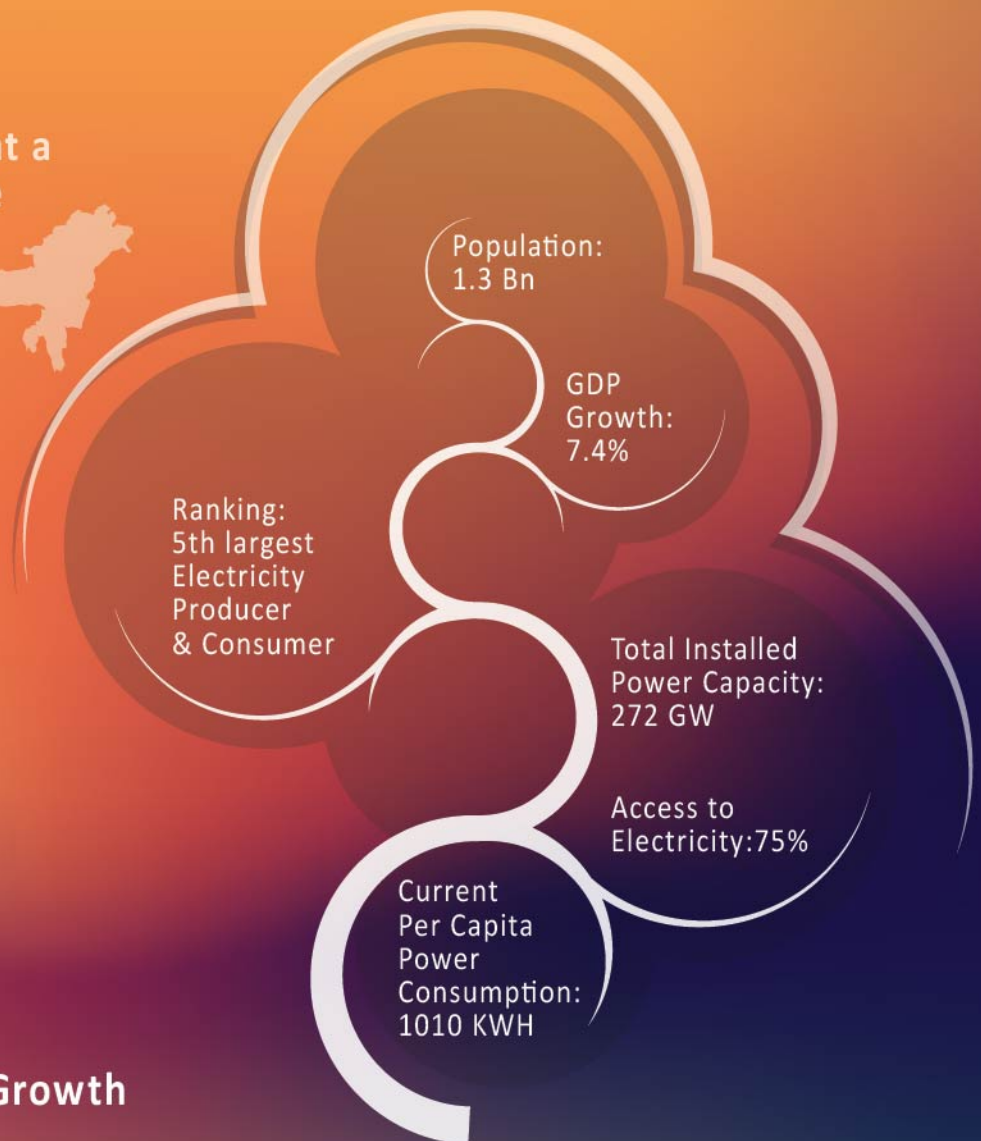


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## India at a Glance



## Economy: Accelerated Growth

**World Bank and IMF forecasts project India to be the fastest growing economy in the world by 2016, surpassing China**

**Share of world GDP to touch 6.12% in 2015-16**

Indian economy grew by 7.2% in 2014-15, industrial growth accelerated to 5.9%, while manufacturing expanded by 6.8%. Production of capital goods expanded for the 1st time in 3 years.

Agriculture is expected to contribute significantly to the GDP over the next 2 years, at upwards of 3% with a boom in rural consumption.

IMF expects the Indian economy to grow by 7.5% in 2015-16 and 2016-17.

Growth is expected to accelerate over the next 2 years on improved performance by both industry and services, with the government addressing policy and structural bottlenecks, leading to a pickup in capital expenditure.

GDP was at USD 2.2 trillion in 2014-2015, of which 65% from the service sector (growing at 9% CAGR since 2001), industry contributes 18% and 17% from Agriculture.

# OPPORTUNITIES IN POWER SECTOR IN INDIA

5th largest producer and consumer of electricity, total demand expected to hit 1,905 TWh by 2022

Power sector is expected to grow at 8% in 2016

Power sector accounts for one-fourth of the projected investments in infrastructure



With current production of 1,108 TWh, India is the world's 5th largest producer and consumer of electricity. Total projected demand by 2022 is 1,905 TWh.

Progressive reforms in energy policies over the past 20 years have shifted India's energy sector focus from a predominantly government-owned and sponsored system towards market driven principles, thus, offering a level playing field for public sector and private players supplying quality energy to consumers at reasonably regulated prices.

The country has an open and well-regulated electricity market. FDI is also allowed in power exchanges up to 49%.

Tariff structures allow pass through of fuel costs to accommodate price fluctuations. Pooled import of fuel is allowed under new regulations.

The sector is largely liberalized, allowing for private investment in the entire value chain; generation, transmission and distribution, including renewable energy.

The RE sector also features strong private investments, essential to materialize the potential for supplying clean and quality power, particularly in rural areas. There are additional opportunities for independent mini and micro hydro projects and hybrid generation using solar and locally available fuel sources, with government incentives already in place.

The immediate goal of the government is to produce two trillion units (kilowatt hours) of energy by 2022. This will mean doubling the current production capacity in next 7 years in order to provide 24x7 electricity for residential, industrial, commercial and agricultural use and for infrastructure development.

These together present an investment potential of US\$ 250 billion over the next 4 to 5 years.

## GENERATION



Targeted government spend on power sector US\$ 200 billion between 2012-17 for capacity addition of 88.5 GW



Planned capacity addition between 2017- 22 at a further 86.4 GW. Investment need pegged at US\$ 600 billion

Electricity production in India expanded at a CAGR of 6.3% during 2008-14. Installed generation capacity stood at 272 GW at the end of May 2015, a CAGR of 10.4% in 2009-14.

100% FDI is permitted under automatic route with de-licensed generation. FDI in power sector between April 2000 and February 2015 was at US\$ 9.5 billion.

There are several incentives and amendments proposed to attract investors, including fuel cost pass through in the bidding process tariff structure itself, thus making the investment risk averse.

## RENEWABLE ENERGY



Current Capacity at 34 GW RE target of 175 GW by 2022, 100 GW of solar, 60 GW of wind, 10 GW of biomass and 5 GW from small/micro hydro

Solar Energy will account for more than a fifth of India's increase in electricity demand by 2022 as installed capacity reaches 100 GW. Rooftop solar alone is expected to reach 40GW of rooftop capacity by 2022.

Helped by a US\$ 50 billion grid upgrade and new installations, India's solar capacity will be capable of delivering 110 terawatt-hours, or 22 percent, of required power increase within seven years.

India is expected to replicate Germany and China's systematic transformation of the electricity sector with the added advantage of cost effectiveness.

## TRANSMISSION & DISTRIBUTION

A fully operational National Grid, with an inter-regional transmission capacity of 46,450 MW, with grid stability of over 99%



Investment potential of US\$ 50 billion over the next 5 years in Transmission & Distribution segment



Transmission infrastructure is being strengthened and refurbished; existing 400 kV lines are being upgraded to 765 kV and 1,200 kV lines, to increase their carrying capacity.

Government program (R-APDRP) aims at reducing losses by 15% by upgrading transmission and distribution networks. The program links disbursement of central government funds to states based on actual reduction in electricity losses. Projects worth more than US\$ 6.31 billion have already been sanctioned under this scheme.

A separate program on feeder separation is underway to augment power supply to rural areas and for strengthening sub-transmission and distribution systems.

Government is prioritizing restructuring of government owned distribution utilities.

A recent legislative amendment under consideration allows the separation of wire and carriage businesses in distribution as a part of its reform and restructuring process. This opens up opportunities for professionally run companies to install and operate wire businesses, further debottlenecking the distribution systems.

Government is also actively promoting introduction of smart grid technologies to ensure availability of quality power to all by the end of 2020.

# POWER ELECTRICALS



Power Electricals to hit the US\$ 100 billion output mark by 2022 with 25% exports

By 2022, the Indian generation equipment industry is expected to touch US\$ 25-30 billion, while the T&D equipment market is projected to grow to US \$ 70 to 75 billion. This growth is slated on the back of the ambitious capacity addition program drawn up by the government; 88.3 GW and 93 GW in the 12th and 13th plans respectively.

The Indian T & D sector has witnessed a cumulative growth of 23.6% CAGR in the last few years from a base of US\$ 4 billion to US\$ 18.4 billion in 2011-12.

Growth drivers for the sector include:

- ◆ Capacity creation in infrastructure, power, mining, oil and gas, refinery and steel.
- ◆ Nuclear capacity expansion will provide significant business opportunities to the electrical machinery industry.
- ◆ Rise in infrastructure investment and industrial production.
- ◆ 100% FDI is allowed under the automatic route in the electrical machinery sector, subject to all applicable regulations and laws.

The Electrical Equipment Industry compliments the power sector with supply of quality products



The Electrical Equipment Industry compliments the power sector with supply of transformers, cables, transmission lines, switchgears, capacitors, energy meters, instrument transformers, surge arrestors, stamping and lamination, insulators, insulating material, industrial electronics, indicating instruments, winding wires, etc.

The present industry size about Rs. 1,28,000 crores and provides Direct employment to 5 lakhs people, indirect to 10 lakhs, and over 50 lakhs across the entire value chain. The industry is diversified, matured, have strong manufacturing base, and has robust supply chain

## ENERGY EFFICIENCY PROJECTS

Government funding for energy efficiency projects during the 12th Five Year Plan at US\$ 122 million

Estimated investment potential of US\$ 50 billion for energy efficiency projects over the next 5 years

29 million incandescent bulbs changed to CFLs by distribution utilities; upgradation to LEDs is in progress. LED Village campaign is being implemented by 28 states.

Transmission and distribution utilities are implementing various schemes on demand side management, energy conservation and energy audits.

## ELECTRONICS & AUTOMATION



Well-developed EMS industry is a significant contributor to the industry's growth

Increasing automation using power electronics and digital technology in power management including SCADA, digital remote metering for better revenue, grid management to ensure power quality and uninterrupted availability are evolving opportunities in the sector.

Well-developed Electronic Manufacturing Services (EMS) industry is a significant contributor to the industry's growth. Other factors include:

- ◆ India has the third largest pool of scientists and technicians in the world.
- ◆ Skilled manpower in Semiconductor Design and Embedded Software.
- ◆ Strong design and R&D capabilities in industrial electronics.
- ◆ 100% FDI is allowed under the automatic route in Electronics Systems Design & Manufacturing and is subject to all applicable regulations and laws

## LIGHTING & FIXTURES



The Lighting Industry, at USD 2 billion today is growing at a CAGR of 10%

The Indian Lighting Industry at USD 2 billion today is growing at a compounded annual growth rate of approximately 10%. While the incandescent lamps market is reducing, Compact Fluorescent Lamps demand continues to be on rise. However, the LED demand is picking up very fast growing annually at the rate in excess of 30%. The contribution of GLS in the overall market is reducing continuously as more energy efficient, longer life and brighter substitutes are being introduced in the market.

The factors responsible for the growth of the overall lighting market are the rising population, personal disposable income, advancement in technology, change in peoples taste and preferences and others. The Government of India's policy of rural electrification has created new demand besides infrastructural development covering urban housing, roads and other projects have also created new demand for lighting products.

India's LED market is expected to reach USD 1,500 million by 2019, at a CAGR of 36%, during 2014-19.



## EXHIBITOR PROFILE

Captive and Co-generation Plants, Geo Thermal, Thermal Power, New & Renewable Energy Plants, Decentralized Generation

Generators and Diesel Generating Sets, Wind and solar power equipment, Electric Drives, Batteries, Inverters, UPS Systems

Transmission & Distribution Equipment

Transmission lines, Towers and Accessories, Sub-Station Equipment, Power and Distribution Transformers, Switchgear and Controlgear, Measuring instruments and meters

Cables and Conductors, Cabling and Wiring products and accessories

Capacitors, Insulators, Insulation Materials and Electrical Components

Equipment for Alternate Sources of Energy

Utilization, Controlling and Measuring Equipment

Household Electrical Appliances and Products, Safety Systems and Devices

Lighting Systems, and Solutions, Lighting Fixtures, Accessories, Lamps and LEDs

Regulating and Control equipment,

Automation Systems,

Building Automation Products

Rotating machines

Energy Saving equipment

## VISITOR PROFILE

### UTILITIES & IPPs

Public and municipal utility owners and managers

Government and regulatory executives

Independent power producers

Original equipment manufacturers

### PLANTS & PROJECT MANAGEMENT

Power / heat plant owners and operators

Plant service sector

Project developers & managers

### SUPPLIERS & ENGINEERS

Fuel suppliers

Design, structural and construction engineers

Industrial facilities personnel

Mechanical, electrical and plant engineers

### INVESTORS & ADVISORS

Strategic and portfolio investors

Industry consultants and advisers

Energy traders, Trade Press

## USER INDUSTRIES

Local, State and Federal Governments

Co-generators and Self-generators

Independent Power Producers, Fuel Suppliers

Power Plant Designers and Project Developers

Power Industry Consultants

Original Equipment Manufacturers

Equipment Inspection & Repair Specialists

Research & Development Organizations

Architects and Engineers

Human Resource Managers & Recruiters

Consulting Firms and Financial Firms

Construction & Maintenance Contractors

Maintenance and Operations Service Providers

IT Specialists and others



## UNVEILING POWERELEC INDIA 2016

Powerelec India 2016, the international tradeshow and conference on power generation, electrical and Industrial electronics, showcasing the potential of India's power sector and bring together international suppliers from across the world to India.

Powerelec India 2016, brings together key decision makers from the government and corporate sectors and is the ideal platform for consultants and manufacturers keen to enter the booming Indian power market.

## PARTICIPATION CHARGES

### ◆ OPTION A: BASIC SHELL SCHEME

Overseas Exhibitors - USD 325/- per sqmt.  
3m x 3m Minimum / single side open  
Fascia Name in English  
Carpet floor  
One 13 amp 220 v plug socket  
1 table, 2 chairs, 3 spotlights & 1 dustbin

### ◆ OPTION B: SPACE ONLY

Overseas Exhibitors - USD 300/- per sqmt.  
PLEASE NOTE:  
Space only Exhibitors should order separate power/electricity connection for their stand area

### ◆ COMMON SERVICES TO BASIC & SPACE ONLY EXHIBITORS

General security services,  
Technical & Organizational services,  
Entry in the official catalogue,  
Use of the press lounge.

## Media Partners



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