

## **Digital push to drive growth for Power sector**

**JULY 13, 2017**

### **Government's focus to attain 'Power for all' will provide fillip to Indian power sector**

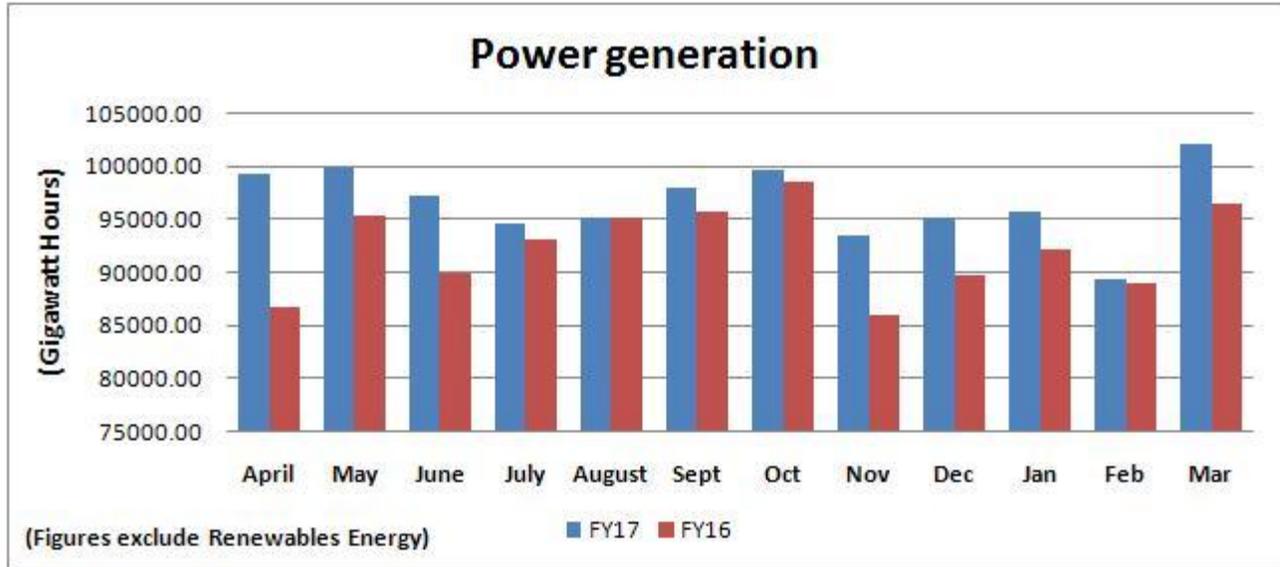
Power is one of the most significant components of infrastructure and crucial for welfare of the nations. Thus, expansion of power sector becomes necessary for sustainable economic growth. India's power sector is one of the most diversified in the world and government is paying attention on promoting renewable energy and implementing projects in a proper time bound manner. Sources of power generation range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar, and agricultural and domestic waste.

Electricity demand in the country grew rapidly and is expected to increase further in the coming years. In order to meet the increasing demand for electricity in the country, massive addition to the installed generating capacity is required. India ranks third among 40 countries in EY's Renewable Energy Country Attractiveness Index, on back of strong focus by the government on promoting renewable energy and implementation of projects in a time bound manner.

### **Power generation**

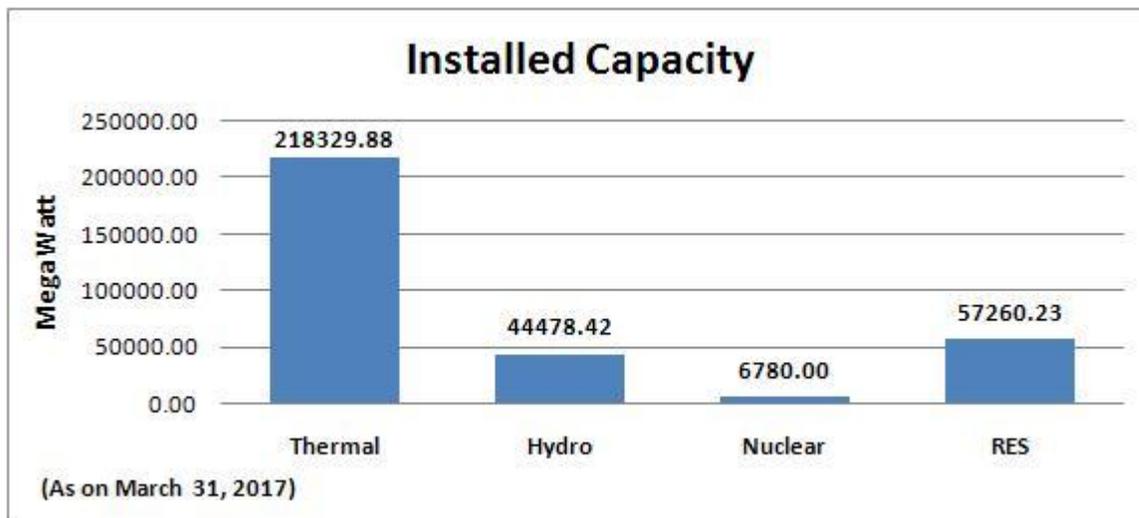
Actual power generation (excluding Renewables Energy) during April-March 2017 stood at 1160140.90 Gigawatt hours (GWH), showing a growth of 4.72% over the corresponding period previous year of 1107822.20 GWH. The sector has achieved 98.48 percent of its total target of 1178000 GWH for April-March 2017, supported by a healthy performance by thermal power, whose generation grew by 5.34 per cent y-o-y. However, the Plant Load Factor (PLF) of thermal power stations decreased to 59.88 percent in FY17 from 62.24 percent a year ago.

Nuclear power generation increased marginally by 1.34 per cent y-o-y during April-March 2017. As against the yearly generation target of 40000 GWH, atomic power stations generated 37915.9 GWH. The PLF of nuclear power stations increased to 74.38 per cent from 73.69 per cent in April-March 2016. Moreover, Hydro power generation improved marginally by 0.82 percent to 122377.60 GWH in FY17 as compared to 121376.80 GWH in corresponding period previous year. Hydro power stations managed to achieve 91.33 percent of its generation target of 134000 GWH for the period.



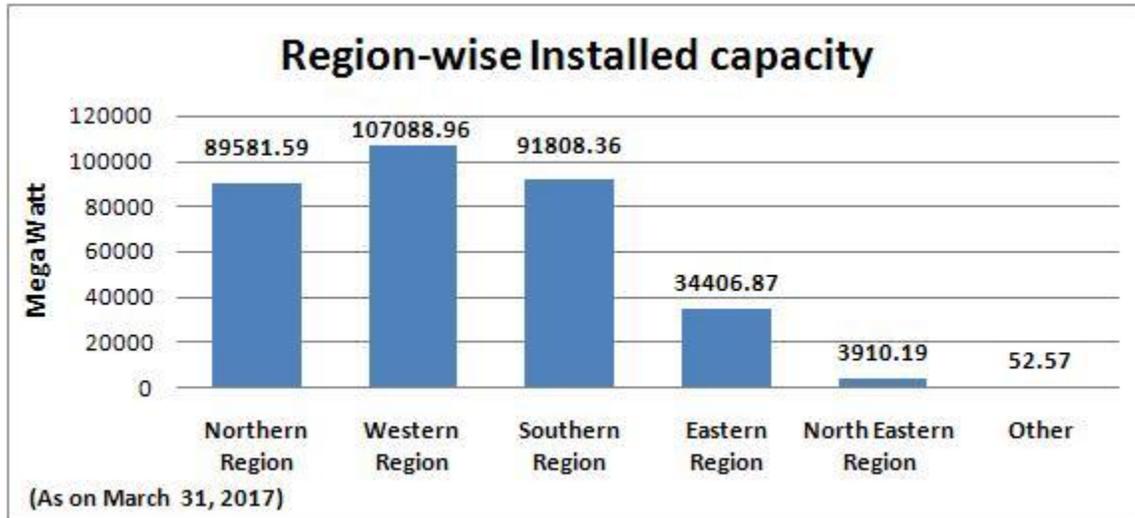
### Generation capacity addition

The generation capacity addition during FY17 was 326848.53 MW against 302087.84 MW in corresponding period previous year, up by 8.20%. Out of total generation capacity added during FY17, contribution of the thermal sector was significant i.e 218329.88 MW (66.80% of the total), followed by RES with 57260.23 MW (17.52% of total) (RES include Small Hydro Project (SHP), Biomass Power (BP), Urban & Industrial Waste Power (U&I), Solar and Wind Energy) and Hydro power with 44478.42 MW (13.61% of total). Of total, private companies added the maximum generated capacity with 142624.01 MW, followed by state government (103967.28 MW) and Central government (80257.25 MW).



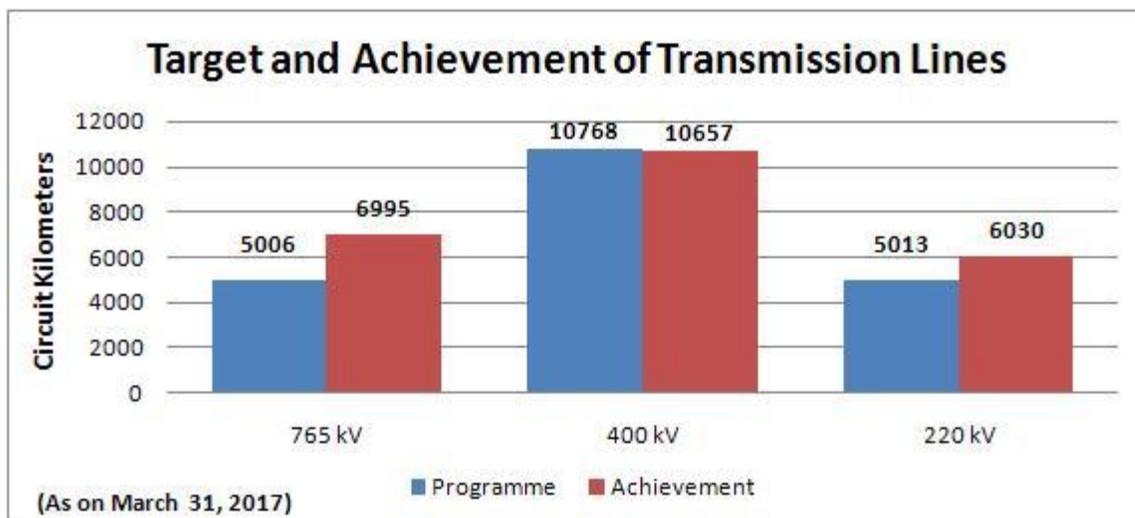
Region-wise, India's 32.76 per cent of power capacity is in western region followed by 28.09 per cent in southern region, 27.41 per cent in northern region, 10.53 per cent in eastern region and only 1.21 per cent in north-eastern and island regions. Western region leads in thermal power and northern region in hydro power with 79497.03 MW and 19311.77 MW respectively. Southern region leads in Renewable Energy Sources (RES), with 26132.07 MW.

The maximum generation capacity were added in Western region i.e. 107088.96 MW, followed by 91808.36 MW in Southern region and 89581.59 MW in Northern region, while capacity of 34406.87 MW and 3910.19 MW were added in Eastern and North Eastern regions respectively.



**Transmission**

Consequent to various steps taken by the Government of expediting forest clearances and intensive monitoring of critical transmission lines, 26300 circuit kilometers (ckm) of transmission lines have been commissioned during the period April-March 2017 compared to 28114 ckm commissioned during the previous year, a de-growth of 6.45%, however this is 112.47% of the annual target of 23384 ckm fixed for 2016-17. Of total, 11669 ckm of transmission lines have been commissioned by Central sector and 10053 ckm by State sector, while 4578 ckm by JV/Private sector.



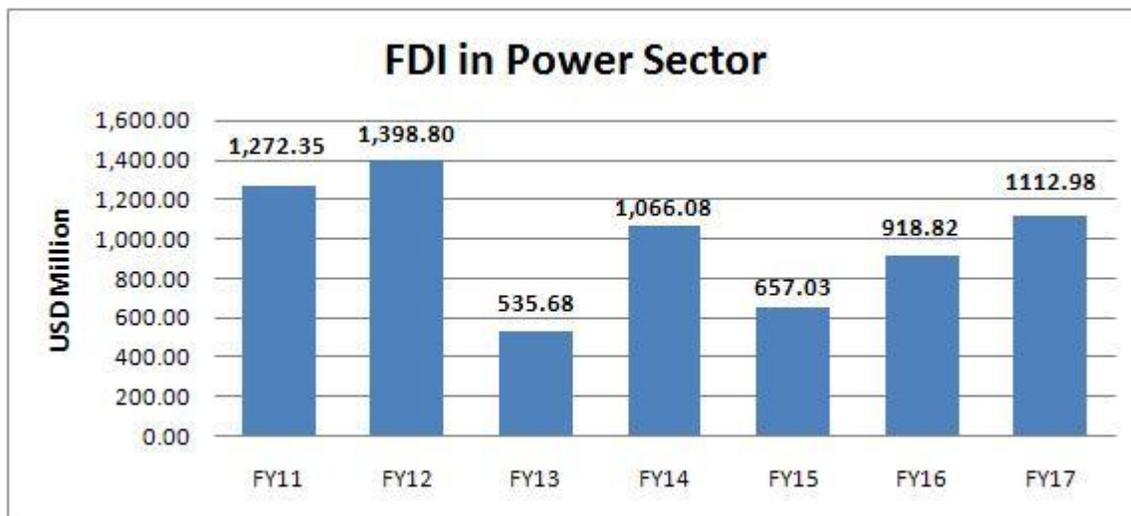
**India becomes net exporter of electricity for the first time**

India has turned around from a net importer of electricity to net exporter of electricity for the first time during the current year 2016-17. India has exported around 5,798 million units (MU) to Nepal, Bangladesh and Myanmar which is 213 MU more than the import of around 5,585 MU from Bhutan. Export to Nepal and Bangladesh increased 2.5 and 2.8 times respectively in last three years. Ever since the cross border trade of electricity started in mid-Eighties, India has been importing power from Bhutan and marginally exporting to Nepal in radial mode at 33 kV and 132 kV from Bihar and Uttar Pradesh. On an average Bhutan has been supplying around 5,000-5500 Million units to India.

India had also been exporting around 190 MW power to Nepal over 12 cross border interconnections at 11kV, 33kV and 132 kV level. The export of power to Nepal further increased by around 145 MW with commissioning of Muzaffarpur (India) - Dhalkhebar (Nepal) 400kV line (being operated at 132 kV) in 2016. Export of power to Bangladesh from India got further boost with commissioning of 1st cross border Interconnection between Baharampur in India and Bheramara in Bangladesh at 400kV in September 2013. It was further augmented by commissioning of 2nd cross border Interconnection between Surjyamaninagar (Tripura) in India and South Comilla in Bangladesh. At present around 600 MW power is being exported to Bangladesh. Further, export of power to Nepal is expected to increase by around 145 MW shortly over 132 kV Katiya (Bihar) - Kusaha (Nepal) and 132 kV Raxaul (Bihar) - Parwanipur (Nepal).

**Foreign Direct Investment**

The sector has attracted 3.49 per cent of the country's total foreign inflows in FY17. The industry has attracted foreign direct investment (FDI) worth Rs 7,473.40 crore or \$1112.98 million during the FY17, which was way higher than Rs 5,973.00 crore or \$918.82 million in previous year, backed by positive investment climate on the back of policy liberalization.



## **New initiatives and policy for power sector**

The Government has initiated several initiatives and policies for the development and improvement of the power sector. Some of these new initiatives are as follows:-

- Preparation of state specific action plans for '24X7 Power for All', covering adequacy of generation, transmission capacity and distribution system. '24X7 Power for All' documents have been signed for 35 States/UTs.
- Launching a scheme called Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) for rural areas: The scheme provides for (a) separation of agriculture and non-agriculture feeders; (b) strengthening and augmentation of sub-transmission and distribution infrastructure in rural areas including metering at distribution transformers, feeders and consumers end; and (c) rural electrification.
- Launching of Integrated Power Development Scheme (IPDS) for urban areas; the scheme provides for (a) strengthening of sub-transmission and distribution networks in urban areas; (b) metering of distribution transformers/feeders/consumers in urban areas; and (c) IT enablement of distribution sector and strengthening of distribution network.
- Operationalization of Power System Development Fund (PSDF): PSDF shall be utilized for the project proposed by distribution utilities for (a) creating necessary transmission system of strategic importance; (b) installation of shunt capacitors etc. for improvement of voltage profile in the grid; (c) installation of standard and special protection schemes; and (d) Renovation and Modernisation of transmission and distribution systems for relieving congestion; etc.
- Approved an innovative mechanism for utilisation of stranded gas based capacity by making available Re-gasified Liquefied Natural Gas (RLNG) along with interventions by all stakeholders, including support from PSDF through a transparent and efficient manner.

## **Recent developments**

### **Russia to sign contract with India for two nuclear plants**

India and Russia are all set to sign contracts for design and supply of equipment for Units 5 & 6 at Kundankulam Nuclear Power Plant (KNPP) building on the General Framework Agreement and Credit Protocol for these reactors concluded at the June 1 annual summit in St Petersburg. The growing partnership in the nuclear power sector between India and Russia has opened opportunities for developing advanced nuclear manufacturing capabilities in India in line with Government of India's 'Make in India' initiative. The reactors are being built by India's Nuclear Power Corporation of India (NPCIL) and Russia's Atomstroyexport Company. The MEA last month described a report as mischief which tried to link signing of agreements for Units 5 & 6 with Russia's failure to convince China to support India for NSG membership. The two units of the plant, with capacity to produce 1000 MW of electricity each, will significantly boost the country's nuclear power generation. Total power generation from six reactors of KNPP will be 6,000 MW.

**India seeks Qatar investment, gas deal to revive power plants**

India would sign future long-term liquefied natural gas (LNG) purchase deals with Qatar if only Doha agrees to acquire stakes in the South Asian nation's power plants. India is the latest major LNG buyer to seek concessions from Qatar, the world's biggest LNG exporter, in order to re-sign long-term supply contracts. Amid a global glut of LNG and a slump in prices, other buyers have sought more flexible contracts, including clauses that would allow them to resell gas they do not consume. India is suffering from natural gas shortages that have required power plants with capacity of as much as 25,000 megawatts to shut down or run at lower rates. Qatar's RasGas is India's biggest LNG supplier. India is also open to granting stakes to Qatar in local oil and gas companies and LNG terminals, should the Gulf emirate make such a proposal, said Pradhan. India's biggest gas importer Petronet LNG annually buys 8.5 million tonnes under a long-term contract. It also buys additional volumes from Qatar under spot deals.

**Government approves Rs 450 crore for power sector in Gurugram**

Union Ministry of Power has accorded principle approval of Rs 450 crore for the Rs 1,350-crore scheme aimed at the development and modernisation of power sector in Gurugram, Haryana. An amount of Rs 272 crore has already been approved under the scheme. Haryana is the first state in the country to expedite the process of installation of smart meters. This year Haryana has set a target to reduce line losses up to 20 per cent.

## Outlook

Indian power sector is experiencing a significant change that has redefined the industry's outlook. Sustained economic growth continues to drive electricity demand in India and the country has turned net exporter of electricity for the first time during the current year 2016-17. Rising FDI, Increase in power generation and higher generation capacity addition in FY17 will be boosting sector in coming time. The sector will also get benefit from the government's plan of restarting the stalled hydro power projects and increase the wind energy production target. The Government of India's focus on attaining 'Power for all' has accelerated capacity addition in the country. Government's initiatives like DDUGJY for rural areas, launch of IPDS for urban areas and operationalization of PSDF will also help power sector.

## Companies Financial Data in Industry

Company Name	CMP	MCAP	BOOK VALUE	DIV. YEILD %	TTM EPS	TTM PE
CESC Ltd.	904.75	11993.10	1005.08	1.11	65.09	13.90
Reliance Infrastructure Ltd.	518.70	13641.29	782.31	1.74	48.99	10.59
NLC India Ltd.	107.00	16355.68	79.80	2.80	21.21	5.04
Gujarat Industries Power Company Ltd.	132.90	2010.13	147.83	2.03	15.16	8.77
KKV Agro Powers Ltd.	348.00	12.63	317.27	0.00	14.60	23.84
Power Grid Corporation Of India Ltd.	215.00	112479.18	95.20	2.02	14.37	14.96
NTPC Ltd.	167.05	137740.48	116.71	2.86	11.38	14.68

Sorted with TTM EPS (High to Low)

Source – Ace Equity

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