Government initiatives to help Power sector improvement in coming time

NOV 3, 2014

Power or electricity is very essential constituent of infrastructure, affecting economic growth and welfare of the country. The Indian power sector is the fifth largest and one of the most diversified sectors in the world with an installed capacity of around 230 GW, out of which coal-fired plants account for about 68 per cent of India's installed electricity capacity. While, gas based installed capacity stands at nearly 8 per cent at around 20 GW.

In spite of large power capacity addition over the past six years, the country is still facing power deficit mainly due to high demand. Further, acute fuel shortage particularly coal, has become primary reason for power deficit in the country, forcing the manufacturers to operate at low capacity. Sluggish domestic coal production has forced power players to import coal at high prices, which is eroding profit margins of the players. Currently, India has been witnessing peak hour power deficit at around 3-5 per cent with the southern India remaining the most affected region, registering a peak power deficit of 8-10 per cent.

Performance of the industry

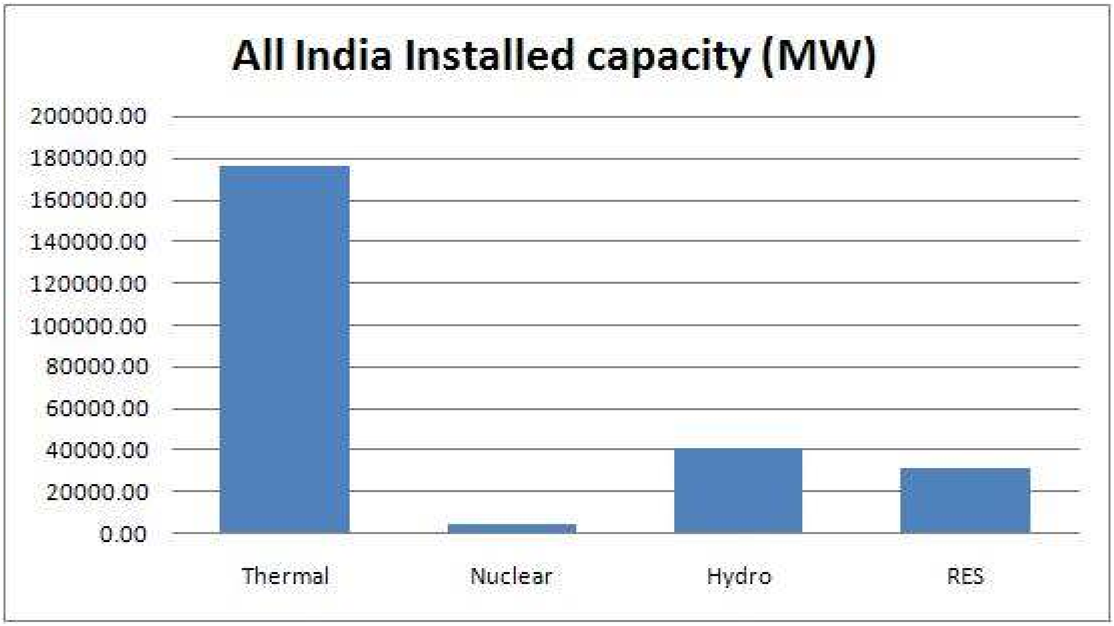
Fiscal 2014 ended on an encouraging note in power generation, even as capacity augmentation fell a little short of the feat in FY13. The total power requirement in the country crossed the one-trillion unit mark for the first time during the year. However, it followed only a marginal rise over the year, reflecting stagnation in industry and steep economic deceleration on one hand and 5.6 per cent appreciable increase in ex-bus power availability on the other. Power deficit fell to 4.2 per cent, half the shortage in the previous fiscal. The per capita power consumption assessed at 917 kWh during 2012-13, up annually by 3.8 per cent, is around a fifth of that in China or 20th of the level in USA.

The total power generating capacity increased 19,685 MW during the year, against 23,467 MW in FY13. While thermal and renewable energy sources, whose data is supplied by the Ministry of New and Renewable Energy, showed lower growth, capacity addition in hydropower at 1,040 MW, twice the increment during the earlier year. Nuclear power drew a blank for the second year. The total capacity addition of 43,152 MW during the first two years of the ongoing 12th Plan, about 36 per cent of capacity augmentation targeted for the plan period, was vastly better than 15,636 MW added during the first two years, or about 23 per cent fulfillment in the 11th Plan.

Installed capacity in India

The total grid-connected installed capacity at the end of FY14 was at 243,029 MW comprising 29,463 MW (12 per cent) from rapidly rising non-conventional renewable power and 88 per cent from conventional power; thermal power, bulk of it coal-fired, constituted four-fifth; large hydro constituted 20 per cent and nuclear just around 2 per cent of conventional power. The share of non-conventional energy, which comprises small hydropower, wind power, solar power, biomass/biogas and industrial/urban waste, has doubled from around 6 per cent six to seven years ago.

As of August 2014, total thermal installed capacity stood at 176118.59 megawatt (MW), while hydro and renewable energy (RES) installed capacity totalled 40798.76 MW and 31692.14 MW, respectively. Nuclear energy capacity, though at lower levels remained broadly constant from that in the previous year, at 4780 MW.

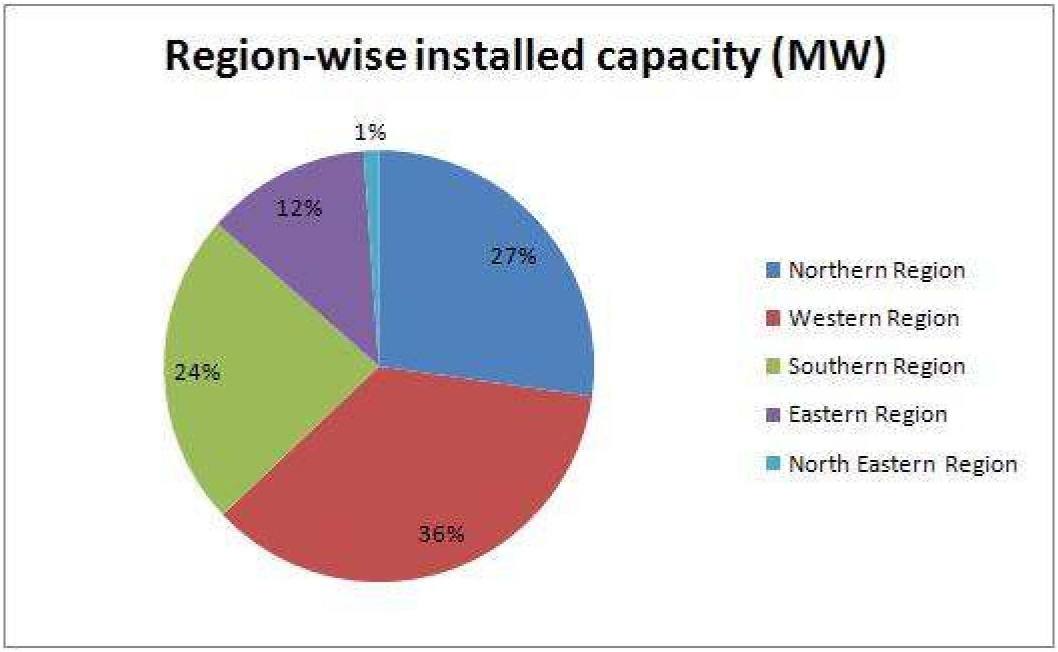


(Figure as on August 31, 2014)

India's around 36 per cent of power capacity is in western region followed by 27 per cent in northern region, 24 per cent in southern region, 12 per cent in eastern region, and only 1 per cent in north-eastern and island regions. Western region leads in thermal power and northern region in hydro. Southern region leads in RES, with 45 per cent share in all-India aggregate, followed by western region (34 per cent) and northern region (19 per cent).

Marking a major change from pattern till recently, private sector has increasingly forayed into power infrastructure in recent years. Thus, during the 11th Plan over two-fifth of conventional energy capacity addition was at the behest of private sector, with 32 per cent coming from state government utilities and around 26 per cent from central government power companies. Most of the capacity in private sector was in thermal power with hydropower forming just 5 per cent.

In addition, around nine-tenth of capacity in RES is in private sector. As a result, private sector utilities accounted for 34 per cent of the total grid-connected installed capacity (including RES) in the country at the end of FY14; state government utilities accounted for 38 per cent and central government companies 28 per cent.



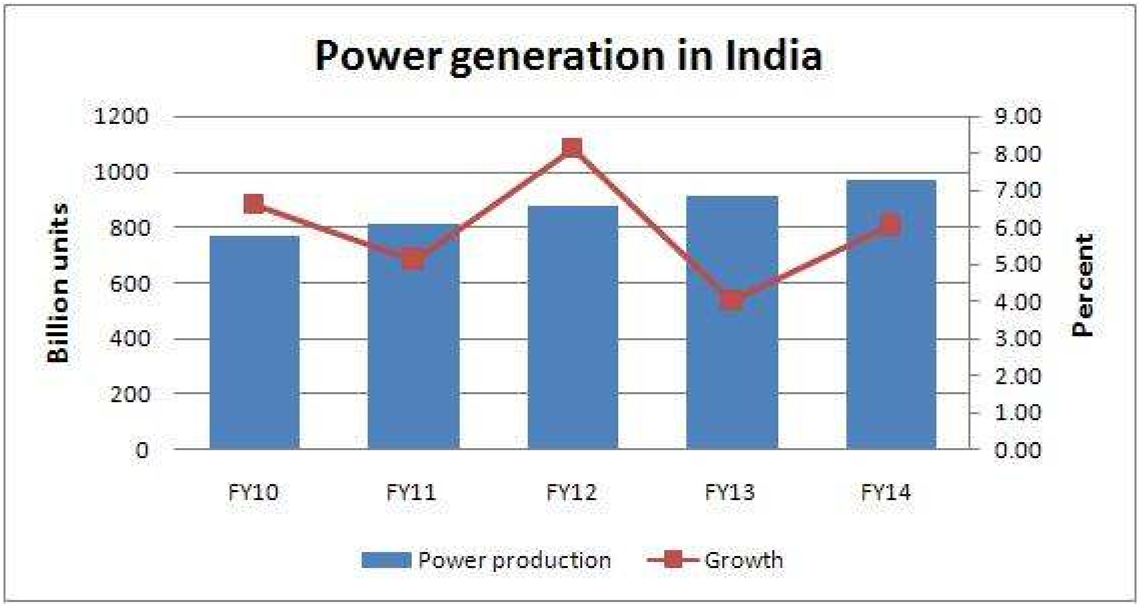
Generation improves by 6% in FY14

Power generation increased by 6 per cent during 2013-14. The growth rate, though much better than 4 per cent during fiscal 2013, was less than 8.1 per cent two years ago. Hydropower including that imported from Bhutan JV rose 19 per cent, moving higher the generation rate during the year. Thermal power and nuclear power increased by 4 per cent each.

Most of the increase in dominant thermal power seems to have come from additions to capacity. Thus, the Plant Load Factor (PLF) at the thermal stations, indicative of capacity use ratio, declined to 65 per cent from 70 per cent during fiscal 2013. The decline in PLF happened in all the regions. In fact, barring September, all other months witnessed lower PLF.

Among the ownership categories, private sector IPP that accounted for around a fifth of total power produced during fiscal 2014, up by 28 per cent. Central sector utilities, which accounted for two-fifth of all-India generation, increased it by 2 per cent and state government utilities with a little less than two-fifth share generated 1 per cent more power during FY14. Power generation in private sector public utilities showed 9 per cent annual decline.

Most of the increase in hydropower came from plants in western, southern and eastern regions, even as northern region, which accounts for a little less than a half of hydro generation, could increase the output by just 1 to 2 per cent. At aggregate level, generating stations in southern region showed 7.5 per cent increase, western region 6.8 per cent, eastern region 5.9 per cent and the minor player north-eastern region 13.6 per cent increase, which was contributed by mainly thermal plants. The second largest power producer northern region (the first being western region) could increase generation by only 3.7 per cent.



Power Surplus/ deficit

Even as the total power requirement in India crossed the one-trillion unit mark for the first time in 2013-14, it showed only a marginal rise over the preceding year, reflecting stagnating industry and steeply decelerating economy. This together with a 5.6 per cent increase in ex-bus power availability resulted in a sharp decline in power deficit to 4.2 per cent during the year, which was half of the shortage in fiscal 2012-13. Peak demand-peak supply deficit also fell to 4.5 per cent, from 4.6 per cent during fiscal 2012-13 and 9 per cent two years ago.

Meanwhile, power deficit eased in fiscal 2013-14 across the country in all the states, which was more due to subdued economic activity than to substantially improved power availability. Northern region, the largest power consumer region for past two years, witnessed 6 per cent deficit, which though eased from 9.2 per cent in 2012-13. Uttar Pradesh (14 per cent) and Jammu & Kashmir (22 per cent) largely contributed to the shortage. Southern region had to bear 6.8 per cent power deficiency which comprised 9.5 per cent in Karnataka, 6.9 per cent in Andhra Pradesh and 5.9 per cent in Tamil Nadu. Western region witnessed only a marginal 1 per cent shortage, with all the seven states experiencing negligible deficit.

In FY15, the anticipated all India power supply position in the country is expected to experience a peak shortage of 2.0 per cent and energy shortage of 5.1 per cent, despite very high shortages likely to be experienced by Southern Region. The peaking shortages are likely to prevail in the Northern, Southern and North-Eastern Regions to the tune of 1.4 per cent, 22.2 per cent and 12.9 per cent respectively. Surplus energy is anticipated in the order of 1.0 per cent and 14.5 per cent in the Eastern and Western Regions respectively.

Anticipated all India power supply position for the year 2014-15

Region	Energy				Peak			
	Requirement (MU)	Availability (MU)	Surplus (+)/ Deficit (-) (MU)	Surplus (+)/ Deficit (-) (%)	Demand (MW)	Met (MW)	Surplus (+)/ Deficit (-) (MU)	Surplus (+)/ Deficit (-) (%)
Northern	328,944	318,837	-10,107	-3.1	47,570	46,899	-671	-1.4
Western	288,062	289,029	967	0.3	45,980	52,652	6,672	14.5
Southern	298,180	260,366	-37,814	-12.7	41,677	32,423	-9,254	-22.2
Eastern	118,663	114,677	-3,986	-3.4	17,608	17,782	174	1
North-Eastern	14,823	12,248	-2,575	-17.4	2,543	2,215	-327	-12.9
All India	1,048,672	995,157	-53,515	-5.1	147,815	144,788	-3,027	-2

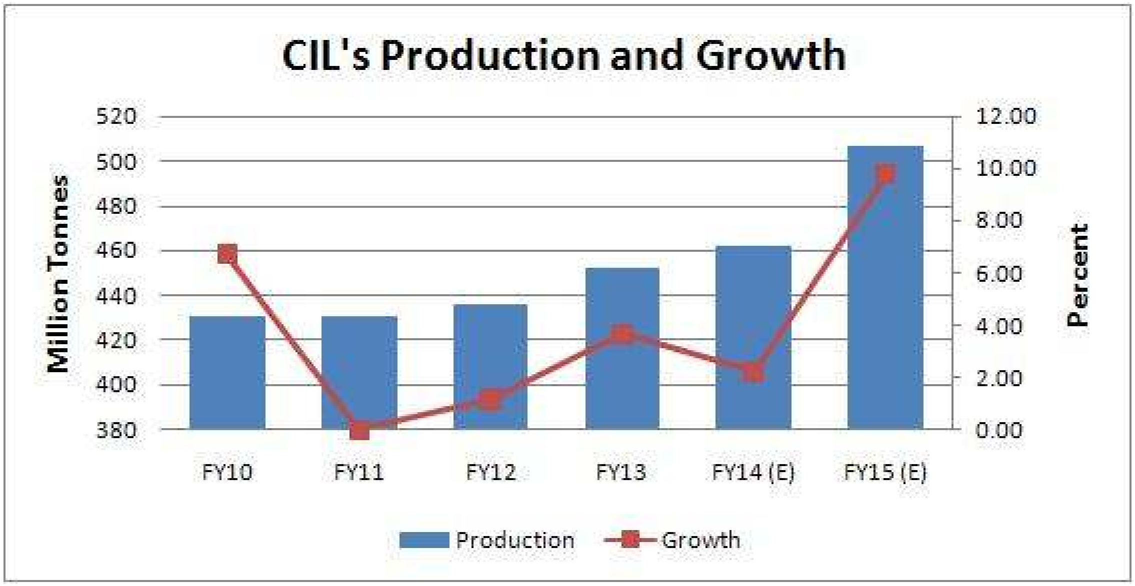
CIL's Production and Growth

Owing to the coordinated efforts made by the ministries of Coal and Environment to fast-track mining approvals, and efforts made to monitor new mining projects along with the presidential directive to sign fuel supply agreements, Coal India (CIL) had increased its domestic coal output to 462 million tonnes (lower than its target of 482 million tonnes) in FY14, up over two per cent y-o-y.

CIL's production target for the fiscal year (2014-15) has been fixed at 507 million tonnes even as the state-owned firm missed the FY14 fiscal's target of 482 million tonnes. CIL, which accounts for over 80 per cent of domestic production, contributed 452.5 million tonnes of coal in 2012-13 as against the target of 464 million tonnes.

CIL's output in the past has been affected by labour strikes, excessive rains, cyclone hits, lack of environmental clearances and non-availability of rakes. Its ability to manage these issues either on its own or through a joint effort with other agencies would be the key to further increase the output.

However, despite the increase in domestic coal output, reliance on imported coal is likely to continue. MOC expected 48,951 MW domestic coal-based capacities to be commissioned during FY10-FY14, with total linkage coal at 204.8 mmt. However, the domestic coal output could not keep pace. This is leading to the sub-optimal use of generating capacities and increase in reliance on imported coal. However, as CIL expands its production, the growth rates seen in the use of imported coal could decline.



Meanwhile, the state-owned company has missed the output target for the fifth consecutive month producing 34.88 million tonnes (MT) of coal in September against targeted 36.17 MT even as acute fuel shortages continue to hit power generation. In the first six months of the current fiscal, Coal India (CIL) has produced 210.76 MT of coal against a target of 220.11 MT. However, the company is confident of attaining its yearly targets of FY 15 due to some additional mining and environmental clearances which might ramp up its current production by 10-20 mt.

Private companies may be permitted to commercially mine coal

The government will initiate the process of allowing private companies to commercially mine coal and end the state monopoly after the public offer of shares of Coal India (CIL). The new government is keen to allow private firms into commercial coal mining to increase supply of the fuel in the country. But the government is not opening too many fronts at this moment. Government will start discussions with stakeholders on commercial mining only after Coal India's public offer.

CIL has not been able to increase output to match the surge in demand although it has huge reserves of the fuel. The Tatas', Adani, Anil Ambani group and others have successfully mined coal in India or abroad, but the law requires them to use their domestic output only for their own captive plants. Allowing them to sell coal in the market will give a big boost to industry, particularly power plants, and cut imports that amount to almost Rs 1 lakh crore a year.

The coal ministry will hold talks with trade unions of coal companies on opening up the sector after the public offer of CIL that is expected later this financial year. Opposition from trade unions has stalled an amendment to the Coal Mines (Nationalisation) Act to allow commercial coal mining since 2000.

The amendment bill was introduced in RajyaSabha in April 2000 and a group of ministers was constituted in 2001 to convince the trade unions. The panel was re-constituted in August 2009 under the chairmanship of the finance minister. However, the previous governments did not succeed in getting the bill cleared. CIL's trade unions are against the government's move to offload 10 per cent stake in the company. The public offer could fetch Rs 23,000 crore, over half of the Rs 43,425 crore that the government proposes to mop up in 2014-15 from equity sale in state-run companies.

Investment in Power sector

The investment climate is positive in the power sector. Due to policy of liberalisation, the sector has witnessed higher investment flows than envisaged. The Ministry of Power has sent its proposal for the addition of 76,000 MW of power capacity in the 12th Five Year plan (2012-17), to the Planning Commission. The Ministry has set a target of adding 93,000 MW in the 13th Five Year Plan (2017-2022). The industry has attracted FDI worth Rs 43,530.99 crore ($7.24 billion) during the period April 2000 to May 2014.

Some of the major developments of the Indian power sector :

- Suzlon Group received a 100.8 MW order from ReNew Wind Power. The project is scheduled for execution at the Bhesada wind site in Jaisalmer district of Rajasthan.
- Tata Power Renewable Energy, a subsidiary of Tata Power, successfully commissioned a 25 MW solar photovoltaic (PV) power project at Mithapur, Gujarat, under Gujarat's Solar Power Policy 2009.
- Jakson Group won engineering, procurement and construction (EPC) orders aggregating $34.21 million for its electrical contracting and solar businesses for FY14.
- Bharat Heavy Electricals (BHEL) has commissioned a 160 MW gas-based power plant at Jaisalmer in Rajasthan for the state's power generation company.
- Swelect Energy Systems (SWEES) has commissioned its 15 MW solar energy park set up with an investment of Rs 106 crore ($17.63 million) near Vellakoil, Tamil Nadu.

Outlook

The demand for electricity in the country has been growing at a rapid pace on the back of growing population and increase in industrialization activities. In order to fulfill the increasing requirement of electricity, massive addition to the installed generation capacity along with fuel sufficiency is required. Considering that power requirement is essential for the economic development, the government, during the 12th five year plan, proposed to invest 31 per cent of the total investments in power sector, highest among all infrastructure sectors. Under the 12th five-year plan, around $235 billion investment is proposed to add 76,000 MW power capacities. Further, the government's move to allow private players for coal mining will enhance coal production, which in turn will provide a fillip to power sector in medium to long term.

Companies Financial Data In Industry

Company Name	CMP	MCAP	BOOK VALUE	DIV. YEILD %	TTM EPS	TTM PE
Reliance Infrastructure Ltd.	637.75	16772.19	788.21	1.18	58.37	10.93
CESC Ltd.	678.30	8474.40	498.19	1.18	53.79	12.61
Nava Bharat Ventures Ltd.	215.40	1923.26	283.77	2.32	20.63	10.44
Gujarat Industries Power Co Ltd.	88.80	1343.11	119.29	2.82	13.09	6.78
NTPC Ltd.	149.95	123640.74	109.25	3.83	12.40	12.09
Neyveli Lignite Corporation Ltd.	86.80	14562.52	84.86	3.23	9.28	9.35
PTC India Ltd.	91.60	2711.44	86.21	2.18	8.96	10.22
Power Grid Corporation Of India Ltd.	145.30	76015.00	68.04	1.78	8.78	16.55
JSW Energy Ltd.	80.25	13161.44	45.55	2.49	5.06	15.85
Adani Power Ltd.	47.90	13756.51	26.49	0.00	4.65	10.31
Torrent Power Ltd.	164.50	7771.77	132.43	0.30	3.92	41.96
Tata Power Company Ltd.	93.75	25355.86	48.77	1.33	3.15	29.72
SJVN Ltd.	23.95	9907.22	22.90	4.09	2.89	8.29
SE Power Ltd.	5.92	24.04	11.31	0.00	1.27	4.66
NHPC Ltd.	20.65	22860.93	24.73	1.45	0.77	26.83
BF Utilities Ltd.	667.15	2513.00	18.28	0.00	0.74	905.26
Energy Development Company Ltd.	18.50	50.88	47.76	2.70	0.57	32.32
Veer Energy & Infrastructure Ltd.	3.16	22.48	6.25	1.90	0.43	7.27
India Power Corporation Ltd.	21.00	2044.96	9.75	0.24	0.32	66.25
Urja Global Ltd.	28.10	142.52	23.74	0.00	0.24	116.82
NEPC India Ltd.	3.60	24.94	5.82	0.00	0.22	16.43
Reliance Power Ltd.	76.30	21403.11	60.04	0.00	0.07	0.00
KSK Energy Ventures Ltd.	64.00	2643.42	72.49	0.00	0.04	0.00
Jaiprakash Power Ventures Ltd.	13.27	3898.73	21.78	0.00	-0.01	0.00
Indowind Energy Ltd.	4.40	39.49	18.97	0.00	-0.05	0.00
Suryachakra Power Corporation Ltd.	2.40	35.91	13.86	0.00	-0.08	0.00
GVK Power & Infra Ltd.	11.72	1850.83	15.64	0.00	-0.16	0.00
Sun Source (India) Ltd.	3.31	4.76	12.18	0.00	-0.16	0.00
Indiabulls Power Ltd.	12.31	3635.06	18.88	0.00	-0.39	0.00
Karma Energy Ltd.	16.20	18.74	38.51	3.09	-0.66	0.00
Entegra Ltd.	4.46	141.45	5.90	0.00	-1.62	0.00
Orient Green Power Company Ltd.	12.42	705.55	19.41	0.00	-2.63	0.00
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Source – Ace Equity