

Time for Action

Developers' perspective

Despite coal and gas shortages plaguing the sector, significant generation capacity was added in 2013-14. However, the fuel deficit severely affected the plant load factors (PLFs) of operational thermal power plants. In addition, discoms' unwillingness to sign long-term power purchase agreements (PPAs) and tariff-related issues also had an impact on the generation segment. *Power Line* invited leading developers to share their perspective on key achievements and challenges as well as the outlook for the future...

What were the sector's biggest achievements over the past year?

Aniruddha Basu

A significant move was the central government's attempt to ensure coal supply for new coal-starved power plants that were in danger of being stranded. The synchronisation of the southern grid with the national grid and the directives of the Appellate Tribunal for Electricity to state commissions for timely determination of tariffs were the other big achievements.

K. Raja Gopal

The sector has not witnessed anything significant because there have been no improvements in meeting either energy or peak demands. The northern, southern, and north-eastern regions experienced double-digit shortages in 2013-14. The average plant load factor (PLF) of coal- and gas-based plants also declined to around 65 per cent and 25 per cent, respectively, as compared to about 70 per cent and 40 per cent in 2012-13. With no

tangible progress on fuel availability or discom financials, the power sector has been in dire straits. However, even in these challenging times, the generation segment did fairly well last year when it came to capacity addition, with a substantial contribution from private developers. The share of independent power producers was 67 per cent in 2013-14, a quantum leap from 55 per cent last year.

On the transmission front, the synchronisation of the southern grid and the national grid with the commissioning of the 765 kV Raichur-Sholapur line was surely an accomplishment. Similarly, the clearance of long-pending transmission projects worth Rs 122.72 billion was also an encouraging development. Other positive markers last year were the signing of fuel supply agreements for projects with commercial operation dates up to March 2015, some improvements in coal production, and the expedited construction of three critical railway lines in Chhattisgarh, Jharkhand

and Odisha, which are expected to ease the movement of 60 million tonnes (mt) of coal per annum by 2017-18, and up to 200 mt by 2021-22.

Hemant Kanoria

The biggest achievement in the power sector over the past year has been the synchronisation of the southern grid with the rest of the national grid. The successful accomplishment of the One Nation, One Grid, One Frequency mission will enable the bulk transfer of power across regional boundaries. The feat was completed on the evening of December 31, 2013 through the commissioning of the 765 kV Raichur-Sholapur single circuit transmission line by Power Grid Corporation of India Limited. It will not only augment the inter-regional power transfer capacity of the southern region but also relieve the congestion in a few transmission corridors, providing a great boost to economic growth in the country.

Jayant Kawale

The biggest achievements over the past year were the massive capacity additions that took place in the private sector and the financial restructuring package adopted by some states. Both these achievements, however, came with question marks. How do projects that are newly commissioned or soon to be commissioned achieve the inputs for their successful functioning, like fuel, PPAs and transmission?

R.K. Madan

During 2013-14, the gross energy generation was a record 966 BUs, which



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K. Vijayanand

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reduced the peak power shortage to 4.1 per cent. In addition, there was a capacity addition of 19,500 MW in power generation, including renewable resources, and 16,750 ckt. km of transmission lines. However, PLFs came down by about 5 per cent due to fuel and transmission constraints and the reduced demand from discoms.

K. Vijayanand

The Andhra Pradesh government has set itself the objective of providing affordable, reliable and quality power to all state consumers. To meet this objective, a number of initiatives have been planned and many are under implementation. Key among these are:

- Power procurement planning: Competitive procurement of power has been initiated to meet estimated energy requirements, in both the short and long term. State discoms have invited bids for procuring 2,400 MW of power on a long-term basis and bids have also been invited for 500 MW of solar power. In addition, discoms have already finalised bids for the procurement of 2,000 MW of short-term power for the next year, from June 2015 to May 2016.
- Land acquisition for upcoming projects: Land acquisition is a critical element for the timely execution of projects. In this regard, the state government has handed over 1,200 acres of land in Pudimadaka, Visakhapatnam, to NTPC Limited for setting up a 4,000 MW project. The government also aims to set up the largest solar park in the world with an aggregate capacity of 2,500 MW, spread across the districts of Anantapur, Kurnool and Kadapa. Land is being acquired and MoUs are being signed with the Solar Energy Corporation of India, NTPC and NTPC Vidyut Vyapar Nigam Limited for this purpose.
- Andhra Pradesh Power Development Company Limited's Krishnapatnam project, with a synchronised 800 MW capacity, is the first of its kind in the country. Its second unit will be commissioned by December 2014.
- Real-time monitoring of around

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Aniruddha Basu

7,000 feeders is being done to keep track of the quality of power supply. All 9,300 feeders will be completed by November 2014.

- The seamless coordination between state and central governments has resulted in the allocation of 400 MW of power from central generating stations to Andhra Pradesh.

Do you see a qualitative improvement in the sector's outlook in light of the steps taken by the new government?

Aniruddha Basu

The steps are in the right direction and there will be a qualitative improvement when it comes to resolving issues like inadequate coal supply and the poor performance of distribution utilities.

K. Raja Gopal

The new government has integrated the power and coal portfolios under a single ministry resulting in coordinated decision-making and faster implementation of projects, a move expected to benefit both industries.

The advisory group for the integrated development of power, coal and renewable energy has started deliberations on a comprehensive policy framework for integrated development in the energy sector. It is also considering an action plan for ensuring 24x7 power for all and

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K. Raja Gopal

optimising fuel supplies and transmission and distribution infrastructure. The indications from stakeholders have been positive but the time required to overcome various commitments depends on how quickly decisions are made and implemented on the ground. The formation of an interministerial committee to review legislations, regulations and the process of clearances for generation and transmission projects should help in identifying obsolete laws and enhance business operations. Hopefully, the government's efforts to set up an all-in-one single-window clearance system through an online portal will help in faster processing and speedy approvals.

Recently, the government also sought inputs from developers on transport infrastructure and ecological issues to fully harness potential hydropower in resource-rich states. It is, however, very important not to get carried away either by these initiatives or the results that have only recently started showing because the challenges in the power sector are chronic and craggy. For instance, the present financial position of discoms, with about Rs 2.3 trillion of accumulated losses, a revenue gap of Rs 1.13 per unit, and coal and gas shortages of 85 mt and 75 million standard cubic feet per day, respectively, are quite staggering by themselves. Also adding to the complexity of the sector's problems is the fact that electricity being a concurrent subject, necessitating coordinated attempts to take different states on board for implementing policy improvements.

The new government is fully aware of the current situation, in which over 80 GW of private projects are under stress for one reason or another. Problems of unviability, along with a paucity of opportunities for tying up long-term PPAs, apart from funding difficulties, have been brought into clear focus in recent interactions with project developers.

Hemant Kanoria

It seems that the government has every intention of improving the power situation in the country, and discussions in

this regard seem to be on the right track. The power minister has also assured faster action after the Supreme Court decision on coal mine allocation. The aim is to raise Coal India Limited's output to 1 billion tonnes by 2019.

Jayant Kawale

The new government has taken the numerous fuel-related issues very seriously and is trying to streamline things in this regard. Although a concrete outcome has not emerged yet, efforts seem to be on the right track. The recent Supreme Court judgment on coal block allocations threatens to reopen the issue, and there is considerable uncertainty as we await the ruling.

R.K. Madan

Taking into account economic priorities and the action plan announced during the latest budget, a qualitative improvement is expected in the overall sector performance. The key focus areas are ensuring fuel availability for commissioned projects and those nearing completion; streamlining procedures for land acquisition and clearances; reducing transmission congestion; increasing renewable energy generation; and fine-tuning bidding processes. However, distribution reforms and the financial health of discoms need to be given more attention.

K. Vijayanand

There has been substantial improvement in the qualitative parameters of the state's power sector. The state government has placed the highest degree of emphasis on improving the performance of the power sector and monitoring of the power situation at every state cabinet meeting has led to the quick resolution of outstanding issues. At the moment, there is no load shedding in urban or rural areas in Andhra Pradesh and all agricultural consumers are being supplied seven hours of free power.

Discoms are undertaking a host of initiatives to improve overall consumer satisfaction. A dedicated toll-free number has been set up for all consumer complaints and the replacement of failed

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Hemant Kanoria

distribution transformers is being done within 24 hours, thus minimising inconvenience to farmers. An interactive voice response system-based call centre is also being set up to monitor consumer satisfaction levels.

Andhra Pradesh is one of the three states in the country selected for implementing the Power for All programme. The objective of this programme is to provide 24x7 power supply, which is high quality, reliable and affordable, to all domestic, commercial and industrial consumers within a fixed time frame. The above initiatives have had an impact on increasing satisfaction levels among customers and this may translate into a greater willingness to pay.

What is your outlook on the upcoming project pipeline for the sector?

Aniruddha Basu

It is too early to comment. However, the outlook on the upcoming project pipeline for the sector on the whole ranges from neutral to positive.

K. Raja Gopal

At the moment, around 100 GW of projects are under construction, out of which 67 GW is likely to be commis-

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Jayant Kawale

sioned during the Twelfth Plan period. Apart from fuel shortages, most projects are also facing issues related to unviable tariffs, untied capacities, financing and last mile funding problems; therefore, the successful implementation of these projects needs solutions on the following lines:

- Meeting the target set by the power and coal ministries to double domestic coal production over the next five years.
- Resolving issues related to the viability of gas projects.
- Migration to regulated tariffs with equitable burden sharing among stakeholders to resolve PPA disputes.
- Cost-overrun funding and debt restructuring with interim debt and equity funding assistance by banks or financial institutions, etc., to prevent stalled projects from becoming non-performing assets.
- The central government may come up with a collective bid to cover the entire capacity on a competitive bidding basis, with similar assurances on coal supply given to Case II and ultra mega power projects (UMPPs) and deferring new UMPPs or Case II bidding till projects under construction are tied up.

About 11 GW of hydro projects are under construction and face additional challenges of infrastructure, accessibility limitations and geological risks, apart from delays in land acquisition and environmental clearance. Hence, they require government support for timely implementation in terms of strengthening road networks, developing basin-wise master plans and expediting clearances and approvals according to stipulated timelines. A special revival package is also essential for projects in Uttarakhand affected by the flash floods of June 2013. The government also has to come up with a suitable action plan to ensure that coal is supplied to end-use power projects to address the situation likely to emerge from the Supreme Court ruling on coal blocks.

Hemant Kanoria

The government plans to add a fresh power generating capacity of 88,537 MW

during the Twelfth Plan period (2012-17). The planned capacity comprises 10,897 MW through hydropower plants, 72,340 MW through thermal, and 5,300 MW through nuclear plants. The target for capacity addition for the Thirteenth Plan period (2017-22) is 93,000 MW. Thus, brisk activity is expected on the power generation front. The government has also expressed its seriousness about developing solar energy. With it recently announcing an expected \$100 billion worth of investment in renewable energy alone over the next five years, the renewable energy sector will have an important role to play in power generation capacity.

Coal sector reforms like stepping up production through the involvement of private sector miners and exposing the sector to state-of-the-art technology are a must, and the pace at which the government can undertake reforms on this front will be a crucial factor for the sector's future. In India, the distribution side is the "tail that wags the dog".

Thus, apart from increasing generation capacity and reforming coal production, it is equally important to focus on distribution reforms. To improve the tariff policy and regulations in the power sector, the government has stated its intention of introducing a Bill amending the central Electricity Act in the winter session of Parliament. The power ministry is working on different tariff structures for different times of day to promote the easy availability of power for maximum hours in electricity deficit areas. It will soon consult states over the issue as the tariff matter comes under the states' domain. This will be an important development and will be followed very keenly.

Jayant Kawale

There is a big shadow over the upcoming project pipeline. These projects will also face the same issues of fuel, PPAs and transmission. The transmission problem seems easier to fix because bottlenecks are known and lines to be constructed have mostly been identified. It is now a question of how long it will take for

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R.K. Madan

those lines to be built.

The issue of PPAs is more intractable and linked to the long-term viability of state-owned distribution entities. Discoms are not in good shape despite financial restructuring, which could be just a temporary palliative. The core issues of reforms is still largely untouched in a number of crucial states. That has been and will continue to be the real issue in the sector for a long time.

R.K. Madan

Over the past few years, the power market was not conducive for developers or promoters, which resulted in the stalling of power projects. However, with the focus of the new government on the growth of the economy in general and infrastructure (including that of the power industry) in particular, the sector's outlook for new projects and those in the pipeline seems bright.

K. Vijayanand

The project pipeline is very strong across the value chain of the state's power sector. The requirement of electricity, that is, both energy and peak demand, is expected to increase significantly in Andhra Pradesh, from the present level of 43,684 MUs and 6,158 MW to 82,392 MUs and 13,436 MW, respectively, by 2018-19. To cater to this demand, the following

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capacity additions are being taken up across the entire power sector:

- Andhra Pradesh Power Generation Corporation Limited will shortly be placing orders through competitive bidding for 1,600 MW (800 MW Vijayawada Thermal Power Station Stage V and 800 MW Krishnapatnam Stage II). The capital expenditure is estimated to be around Rs 65 billion.
- NTPC is setting up a 4,000 MW (5x800 MW) project with an investment of nearly Rs 200 billion in Visakhapatnam district.
- The state's discoms will be procuring an aggregate power of 2,400 MW for the long term.
- Orders will shortly be placed for 500 MW of solar capacity through distributed generation and 2,500 MW of solar parks by various agencies.
- The state government aims to add around 4,000 MW of wind projects in the next five years. To achieve this, Transmission Corporation of Andhra Pradesh Limited (AP Transco) has awarded projects worth Rs 20 billion for Wind Evacuation Phase 1. Projects worth Rs 13 billion and Rs 18 billion will be taken up for the Wind Corridor Phase 2 and solar evacuation schemes respectively. In addition, AP Transco has drawn up plans to augment the transmission network by spending Rs 80 billion over the next five years.
- Power Grid Corporation of India Limited has planned to undertake interstate transmission projects worth around Rs 230 billion in the state, out of which projects worth Rs 94 billion are under implementation and projects worth Rs 128.81 billion are at the planning or tendering stage.
- State discoms have planned to spend around Rs 190 billion over the next five years to augment their sub-transmission and distribution networks. This includes enhancing the distribution capacity to cater to an increased electricity demand. Apart from this, investments of Rs 65.42 billion are planned for the addition of 1,038 substations, 385 power transformers, 85,000 feeders and 200,000 distribution transformers. ■