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TANGEDCO to break even in 2017-18

Business Line: June 19, 2017

Power utility TANGEDCO in Tamil Nadu, which had a loss of Rs 13,985 crore in 2013-14, is all set to achieve break-even this fiscal, after a gap of nearly 15 years, due to various measures including additional generation capacity and procurement of cheaper electricity.

The losses of Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) came down steeply to Rs 3,783 crore in 2016-17 and the corporation would break-even this financial year, according to the policy note tabled in the state Assembly today by Electricity Minister P Thangamani.

Additional power generation capacities and power contracted through long and short term basis has enabled TANGEDCO to discontinue procurement of costly power based on naphtha and low sulphur heavy stock fuels, it said.

With the synchronisation of Northern, Eastern and Western grids and Southern grid, TANGEDCO is able to avail "cheaper power from power exchange".

TANGEDCO was also able to save approximately Rs 400 crore by coal management and import substitution. This was achieved in spite of additional expenditure of Rs 615 crore due to clean energy cess and increase in railway tariff by Centre.

"After a long gap of 15 years, it is expected that TANGEDCO will break even during the year 2017-18", the note said.

Tamil Nadu would also continue to remain power surplus state in 2017-18 also with 8,663 MUs of unused electricity.

As per the Load Generation Balance Report of the Central Electricity Authority, the policy note said, Tamil Nadu will continue to be a power surplus in 2017-18 with a surplus of 8,663 MUs and with a peak surplus of 2,227 MW, it said.

On the power demand in the state, the policy note said it was about 13,750 MW to 14,250 MW while Chennai met an all time high demand of 3,332 MW on May 30, 2017.

The daily average state consumption increased from 200 MUs during 2011 to 320 million unit in 2017, it said.

State discom to see profit this year: Tamil Nadu power minister

Business Standard: June 19, 2017

State govt added an additional power of 10,496 Mw from 2011 by commissioning new power stations

The Tamil Nadu discom is expected to register profit during the year 2017-18 after a long gap of 15 years, said the government.

In 2017-18, Rs 2,150 crore profit is expected as against a loss reported in the previous years for Tangedco.



"After a long gap of 15 years, it is expected that TANGEDCO will break even during the year 2017-18, which is on a fiscal year basis without considering the debt of around Rs 81,000 crore," said P Thangamani, Minister for Electricity, Prohibition and Excise.

Various steps, including joining the UDAY Scheme and efficient coal management and import substitution has helped the government reduce the losses of TANGEDCO from Rs 13,985 crore in 2013-15 to Rs 3,783 crore in 2016-17. The gap between the Aggregate Rate of Realisation (ARR) and Aggregate Cost of Supply (ACS), which was Rs 2.16 in 2010-11, was reduced to Rs 0.44 in 2016-17.

The state has added an additional power of 10,496 Mw from 2011 by commissioning new power stations in the state and central sectors, through medium and long-term power purchase agreements.

It has harnessed 13,000 million units from wind generators in the last wind season and 1,644 million units of solar energy in 2016-17.

The rating of TANGEDCO, which was C+ during FY15, has been rated as B for FY16 in the State Distribution Utilities Annual Integrated Rating published by the Union Ministry of Power. This, because of the financial turnaround and other constructive measures initiated. The rating is expected to go up to A during this financial year.

The aggregate technical and commercial losses of TANGEDCO, which was 20.24 per cent during 2010-11, have been reduced to 14.58 per cent in 2015-16 due to various improvement and strengthening works taken by TANGEDCO. It is further planned to reduce the losses to 13.50 per cent by 2018-19, through modernisation system strengthening and improvement works.

After TANGEDCO has joined the Ujwal DISCOM Assurance Yojana (UDAY) scheme initiated by the Government of India, loans of Rs 22,815 crore has been taken over by the State government. The state has also provided a guarantee for Rs 7,605 crore to TANGEDCO for mobilisation of funds through issuing of bonds for repayment of debts.

It has also entered into an agreement with central primary lending institutions for financial tie up to the tune of around Rs 95,000 crore for capital projects.

It's women who run the show at TNEB now

Times of India: June 23, 2017

The cliché, 'better late than never' couldn't be more appropriate for Tamil Nadu Electricity Board (TNEB). The company which earlier had men calling the shots at all top levels, for the first time has four women directors for its subsidiary companies - TANGEDCO (Tamil Nadu Generation and Distribution Corporation) and Tantransco (Tamil Nadu Transmission Corporation).

Company sources say earlier it was corruption that limited the role of women to departments such as distribution, accounts and transmission, keeping them from reaching high posts. The recent development has been possible due to the New Companies Act, which mandates the presence of a woman director on the board.

The wait has been long for the women. While M A Helen, distribution director of TANGEDCO, M Geetha, project director, TANGEDCO, and Axilium Jayamary, operation director of Tantransco, have been with the state power utility for more than 32 years, Maheswari Bai, the junior most, has been with it for the past 20 years.

TOI recently met the women at the TNEB headquarters as they were busy preparing the power demand grants to be presented in the assembly by power minister P Thangamani.



Jayamary, officially became TNEB's first woman director in November 2015. "You will often find me in the load despatch centre looking at various power sources on a daily basis, so that we meet the entire demand," says the native of Erode.

Helen has been busy with changing transformers or transmission lines in various areas in Chennai. "The power load in Chennai is increasing each day and there are problems in some areas where the present line is not able to take on the load. We are working in all these areas and I am also visiting the areas where work for a big project is in progress. After taking charge, I visited Trichy and Coimbatore and had a meeting with the officials there," says the woman from Coimbatore.

Credited with introducing the Minsara Nanban, an SMS service that alerts consumers about power shutdown in their area, she says an app that will enable consumers to pay their bills as well as lodge complaints online is in the offing.

Geetha, a city resident, joined the TNEB before the present headquarters building was opened in the 1980s. "I stay put in Chennai as I was committed to the two big power projects which are being set up. The first project is in Ennore SEZ where a thermal project with a capacity of 660MW is being set up. Another project is coming up at North Chennai with a capacity of 800MW. We are launching another hydro project in Kundah in Nilgiris district," she says.

Maheswari Bai is credited with helping the power utility creating new records in evacuation of wind power this year. "It is a recognition for women and it is a definitely a welcome move. This must continue in the future too in TNEB as well as expand in other organisations," says women activist U Vasuki.

GST: No possibility of power tariff hike after roll-out, says Piyush Goyal : Says that he just sees 1 or 2 paise variation on per unit electricity price

Business Standard: June 22, 2017

Power Minister Piyush Goyal sees no possibility of an increase in power tariff across the country post goods and services tax (GST) roll-out, saying industry associations have not sought its deferment.

GST, which is set for July 1 kick-off, will usher in a new system under which there will be one tax on commodities and services across the country.

"I don't see any possibility of [a] spike in power tariff due to [the] implementation of GST. There could be one or two paise variation (per unit of electricity)," Goyal told reporters after his meeting with the industry covering power, coal, mines and renewable energy sectors.

Goyal added that there are a couple of issues raised, which will be put forth at the next meeting of the GST Council. One of them pertains to the issue of tax on a product made up of fly ash, a by-product at coal-based thermal power plants.

The industry association, Goyal said, has not sought postponement of the GST implementation and all are content with the new framework.

The power ministry will make an analysis on the basis of tax collection before and after implementation of GST to find out if the new tax rates are "inordinately" high or not.

Why India's smart grid infrastructure is integral for power sector **Financial Express: June 18, 2017**

India's smart grid infrastructure is integral for power sector.



Globally, the digital revolution has increased need for electricity with greater reliability and better quality than is typically delivered through conventional power distribution systems. As more manufacturing processes and service industries become dependent on digital services, the requirement for high security, quality, reliability, and availability of an electric power supply will only go up. India's existing infrastructure has been designed for large conventional sources of energy that involves manual intervention and oversight. However, with the government's thrust on renewable energy sources, there is a need to restructure the grid to have an underlying IT infrastructure to merge and manage the energy generated from renewable sources along with conventional energy sources. The need of the hour is an integrated grid with an IT backbone. Smart grids can reduce energy consumption, increase efficiency of the electricity networks, and manage electricity generation from renewable technologies.

Global investment in smart grid infrastructure has increased from an estimated \$67 billion in 2009 to nearly \$200 billion in 2015. Some of the most ambitious smart grid initiatives are in China and the US. Japan and Korea also have long-term plans to incorporate solar power generation and national smart metering initiatives. In Spain, Germany, the UK, and France, too, there are smart grid initiatives, some of which have started demonstrating outcomes. Australia has the 'Smart Grid, Smart City' initiative to deliver a commercial-scale smart grid demonstration project. India has power sector market conditions that will gain significantly from investments in smart grid infrastructure. With one of the highest transmission and distribution (T&D) loss rates in the world; almost all states have a rate above 15% and most utilities fail to recover cost. The government has identified power sector as a key sector of focus to promote sustained industrial growth. India's electricity generation target for FY17 has been fixed as 1,178 billion unit (BU), ie, 6.38% growth over actual generation of 1,107.822 BU for FY16. It comprises of 999 BU thermal; 134 BU hydro; 40 nuclear; and 5 BU import from Bhutan. The government's goal is to provide electricity to every home in India by 2019, ensuring affordability.

With a massive thrust on renewable energy, the government announced a renewable power production target of 175,000 MW by 2022; this comprises generation of 100,000 MW from solar power, 60,000 MW from wind energy, 10,000 MW from biomass, and 5,000 MW from small hydro-power projects. States have been asked to prepare action plans with year-wise targets. Initiatives like Green Energy Corridors, UDAY reform, smart grid Vision, ISA, hybrid/electric vehicles, strengthening of national grid, etc, are positive steps in this direction.

With focus on Digital India and Make-in-India and other such programmes, India's ecosystem is set to provide a comprehensive, cheaper, and scalable solution to digital age electricity grids. The National Smart Grid Mission (NSGM) under the power ministry is pioneering the smart grid programme. With a committed a total outlay of ` 980 crore with a budgetary support of around ` 338 crore in the 12th plan period, the ministry has allocated more than 90% of the outlay in development of smart grids in the smart cities. Currently, NSGM has under its belt 14 smart grid pilot projects. Under consultation of Power Grid Corporation of India and Central Power Research Institute, pilot projects are being developed in identified regions to develop and provide advance metering infrastructure, demand response, charging infrastructure for electrical vehicles, among other functionalities. Utilities will witness reduced operational cost, increased employee safety, increased revenue, higher customer satisfaction and reduced capital cost. Consumers will experience improved level of service with fewer inconveniences and lower costs resulting from loss of power. Reduction in cost will ultimately help keeping the prices of goods and services lower than they would be otherwise. Smart grids will virtually eliminate blackouts.

NTPC JV serves notices to power utilities over Rs 1,300 cr dues



Business Standard: June 19, 2017

Threatens to stop supply, sell power to third parties if dues beyond 60 days aren't paid immediately

NTPC Tamilnadu Energy Company Limited (NTECL) has served notices to the power utilities of Tamil Nadu, Telangana and Karnataka for not paying power dues amounting to Rs 1,379.52 crore towards power supplied from 1,500-Mw Vallur Thermal Power Project (VTPP) at Chennai.

NTECL is a 50:50 joint venture between NTPC and the Tamil Nadu government's Tangedco.

The joint venture company has threatened to stop supply and sell the power to third parties from April 26, 2017 if the dues beyond 60 days were not paid immediately.

NTECL has submitted multiple bills totalling Rs 1,156.15 crore between December 9, 2016 and April 9, 2017 to Tamil Nadu, which draws 70 percent of power from VTPP. Telangana and Karnataka power utilities owe Rs 134.15 crore and Rs 89.52 crore respectively during the same period, according to the notices.

Meanwhile, the sources in NTPC revealed that Hubli Electric Power Supply Company Limited (Hescom) has paid Rs 48.2 crore overdue amount in response to the notices.

CIL's coal supply to power sector drops marginally to 64.7 MT

Times of India: June 23, 2017

Supply of coal by state-owned CIL to power plants dipped by nearly two per cent to 64.7 million tonnes (MT) in April-May period of the ongoing fiscal even as demand by the power sector showed an upturn.

According to recent government data, Coal India(CIL) dispatched 65.8 MT fuel to the power sector in the same period of last fiscal.

CIL's supply to the power sector last month declined by 3.52 per cent to 32.8 MT over 34 MT in May, 2016, the data said. The company is a major supplier of coal to the power sector.

In contrast, the overall dispatch in April and May increased to 91.7 MT over 88.2 MT in the corresponding period of 2016-17.

The overall dispatch by the PSU in May registered an increase of 2 per cent to 46.4 MT over 45.5 MT in May, 2016.

Government had earlier said demand of coal by the power sector has picked up since December, 2016 as the economy was doing well.

A series of measures have been taken by CIL to make more coal available to power sector such as offering coal under special forward e-auction scheme exclusively for the sector.

Besides, measures like reducing reserve price and earnest money deposit to make e-auctions attractive, no performance incentives on higher grades of coal, have also been taken up.

Coal India, which accounts for over 80 per cent of the domestic coal output is eyeing one billion tonne of production target by 2020. SID ANU

Union Minister Piyush Goyal assures solution to power sector bad loans

The Indian Express: June 13, 2017



There are a total of 35,900 MW of thermal and hydro projects that have been categorised as 'stressed assets' with resultant bad loans in the power sector weighing heavily on the country's banking sector.

Piyush Goyal, Minister of State for Power, Coal, New and Renewable Energy and Mines, Monday said the Centre is close to finding a solution to tackle the problem of financially stressed assets in the power sector, with focus likely on cases where no significant irregularities are detected or where the promoters are not found to be wilful defaulters. There are a total of 35,900 MW of thermal and hydro projects that have been categorised as 'stressed assets' with resultant bad loans in the power sector weighing heavily on the country's banking sector.

"We have had very extensive engagement amongst all stakeholders, particularly bankers and financial institutions like REC and PFC, and all different officials of state governments and central government. We have come very close to a resolution mechanism for at least those stressed power plants where the promoters are not found to be wilful defaulters or where we do not find any significant irregularities," Goyal told reporters.

As many as 17 under-construction thermal power projects, aggregating to a capacity of 18,420 MW, are stalled due to financial issues, while another 17 gas-based power projects, aggregating to a capacity of 11154.38 MW, are categorised as 'stressed', according to government data till end-February.

In addition, a total of 20 hydro electric projects, aggregating to a capacity of 6329 MW, are struggling due to financial issues. Adding to the problem is the fact that the plant load factors (PLF) for private sector projects remains weak at around 55 per cent, with merchant tariffs remaining depressed at Rs 2.5 per unit (kWh). Options on the table include converting the stressed assets to national assets and seeking the assistance of state-run NTPC Ltd to operate these plants once they are taken over by banks.

According to a Credit Suisse report dated February 16, 2017, the stress in the power sector is rising and is likely to continue. "Stress within the power sector continues to rise, as the EBITDA (earnings before interest, taxes, depreciation and amortization) of larger companies for the sector is declining 13 per cent YoY (year on year) and 18 per cent QoQ (quarter on quarter) and net profit is falling 7 per cent YoY and 34 per cent QoQ... There have been no PPAs (power purchase agreements) signed during the quarter either and stress is likely to continue rising," it said.

Goyal said: "The bankers are taking very proactive measures to take over such plants which have defaulted and we are working with bankers to find a win-win solution where all stakeholders in this sector will benefit. More particularly, out of the resolution of these NPAs, we are assuring the nation that the final beneficiary would be the consumers because we will be able to further bring down the average purchase price of state utilities."

On the stressed hydro sector projects, he said: "We have asked the state governments if they take over the stressed power plants, or if the bankers take it over, then we can look at finding solutions to resolve the problems related to stress in hydro power projects also keeping in mind the economic viability of these projects."

On June 7, the minister had said that he wanted to convert the stressed assets to national assets and NTPC had offered to operate the stressed power plants once they are taken over by the banks.

Short-term contracts find favour with power discoms

Live Mint: June 21, 2017

Low wind and solar power tariffs and tepid demand are driving power discoms and generators away from long-term agreements



India's electricity sector is poised for a structural shift with distribution utilities becoming increasingly averse to entering into long-term power purchase agreements (PPAs) for thermal projects.

Even as lenders want tariff certainty for the loan period, generation utilities are looking at developing a portfolio of short-term power procurement contracts ranging from "day ahead" to the ones spanning one, three or five years, to protect themselves from disruptions caused by record low green energy tariffs.

This assumes importance given that India's current installed capacity of 329,205 megawatt (MW) and projects under construction are expected to meet the country's electricity demand until 2026.

Given that state electricity distribution companies (discoms) are not floating long-term PPAs, generation utilities also don't want to hinge their growth on one set of customers. Instead, they are looking at different customer sets such as industrial clusters, discoms, individual customers and power exchanges.

Experts say this is the way forward.

"Indian power market has gradually shifted away from long-term PPAs to short and medium-term agreements. These days we find most of the procurers, even regulators at times, favouring relatively shorter-duration PPAs. Even long-term PPAs are being entered for 7-10 year duration instead of the conventional 25 years," said Abhishek Poddar, a partner at consulting firm A.T. Kearney Ltd.

Recently, the Yogi Adityanath-led Uttar Pradesh government cancelled the long-term PPAs for 15 years.

"Post Ujwal Discom Assurance Yojana (UDAY) and transparent information shared through Vidyut Pravah, utilities are becoming commercially savvy to engage and manage portfolio of power procurement contracts ranging from day ahead to 1-3-5 years rather than commit to long-term 15-25 year contracts. It surely is causing stress in the system and financial institutions need to come up with solutions on their lending products to power projects," added Sambitosh Mohapatra, partner, energy and utilities at PwC India.

Discoms are making turnaround efforts under UDAY, a debt restructure and efficiency improvement scheme launched in November 2015. UDAY mandates strict vigil on the finances and operations of state electricity boards. Vidyut Pravah, the app, allows consumers to find out the quantum and price of electricity available on the grid.

"Multiple factors have contributed to this shift, including a general expectation on continued reduction in power costs driven by renewable energy. This aspect, coupled with the fact that demand growth has been tepid, has resulted in unwillingness of procurers to tie themselves up with long-term, potentially 'higher cost' power," Poddar added.

The signs of early disruption are already there. There are concerns over whether the discoms will honour their commitments for projects earlier awarded at high tariffs and not waver on signing PPAs, *Mint* reported. (bit.ly/2pAi9dt)

However, for the new model to succeed, banks and financial institutions have to be on-board given the large long-term debt requirement for such projects. Also, bad loans are clouding the outlook for power sector lenders. As a result of subdued investments in the power sector, firms are seeing limited lending opportunities, and slowing disbursements and loan book growth.

"Ultimately new projects need to be financed up to 70%-80% through debt. The FIs (financial institutions) and banks want tariff certainty for the lending period. There is a desire of utilities to move towards medium-term contracts because cost of generation has



fallen," said Deepak Amitabh, chairman and managing director at PTC India Ltd, India's largest electricity trader. "Though it is desirable, but it doesn't look doable in the short term due to lender concerns." PTC's subsidiary firm PTC India Financial Services (PFS) lends to energy projects.

Why both discoms and power generation cos prefer short-term contracts

Money Control : June 22, 2017

In the spate of declining tariffs for the renewable energy resulting in the concerns regarding the fate of existing PPAs, which were signed at a higher cost, the short term contracts marked its presence with the discom market.

Following a decline in solar tariffs, power distribution companies (discoms) are increasingly negotiating for short-term contracts with power generation companies.

Over the past few months solar power hit a record low tariff of Rs 2.44 per unit resulting in fewer clean energy deals for solar projects with high tariffs. This has also put more pressure on discoms to revise the terms of the solar power projects which were struck at higher price points.

And to tide over this problem, discoms are looking favourably at short-term contracts, which are roughly for a period of 1 to 5 years, as this would help them minimise their losses. A normal, long-term power purchase agreement can last up to 25 years which, against the backdrop of changing tariffs, can be unviable for discoms.

The rules under the long-term PPAs makes it difficult for discoms to terminate the contract, which is usually for 25 years, even if there is a change in power demands.

According to an *Energetica India* study, the discoms have to pay the capacity charge (or a mandatory fixed charge) irrespective of the power consumed by the discom. Even if the supply outstrips demand, discoms will have to pay the capacity charge for the entire 25-year period for the power it does not even require.

Also, an expected increase in demand for solar power commensurate, with its supply, has given discoms another reason to consider short-term contracts.

"Multiple factors have contributed to this shift, including a general expectation on continued reduction in power costs driven by renewable energy. This aspect, coupled with the fact that demand growth (in solar) has been tepid, has resulted in unwillingness of procurers to tie themselves up with long-term, potentially 'higher cost' power," Abhishek Poddar, a partner at consulting firm AT Kearney Ltd, told *Livemint*.

Experts believe that for the new model to succeed, banks and financial institutions have to be on-board given the large long-term debt requirement for such projects.

"Ultimately, new projects need to be financed up to 70 percent-80 percent through debt. The FIs (financial institutions) and banks want tariff certainty for the lending period. There is a desire of utilities to move towards medium-term contracts because cost of generation has fallen," said Deepak Amitabh, chairman and managing director at PTC India Ltd, India's largest electricity trader told *Livemint*.

However, discoms' inability to pay power generating companies on time has often placed a heavy burden on the banks which had lent to these discoms. Although UDAY, government's revival package has helped pare the revenue losses of these discoms, they are now facing competition from solar generating companies.

It is a win-win situation for both stakeholders: discoms and the power generation companies (gencoms). Even the gencoms are resorting to short-term power procurement contracts in order to better guard themselves against low green energy tariffs. And



gencoms' justification is that discoms might default their payments if the tenure of the agreement was longer.

Generation Capacity

According to the Central Electricity Regulatory Commission (CERC) report on Short-term Power Market in India 2015-16, India's installed electricity generation capacity increased to 302088 MW in FY16, an increase of 11 percent from the year before.

Table-1: Installed Electricity Generation Capacity in India by Source (MW), 2006-07 to 2015-16

Year	Thermal				Nuclear	Hydro	RES	Grand Total
	Coal	Gas	Diesel	Total				
2006-07	71121	13692	1202	86015	3900	34654	7760	132329
2011-12	112022	18381	1200	131603	4780	38990	24504	199876
2012-13	130221	20110	1200	151531	4780	39491	27542	223343
2013-14	145273	21782	1200	168255	4780	40532	31692	245259
2014-15	164636	23062	1200	188898	5780	41267	35777	271722
2015-16	185173	24509	994	210675	5780	42783	42849	302088
Percentage of Installed Generation Capacity								
2006-07	53.7%	10.3%	0.9%	65.0%	2.9%	26.2%	5.9%	100%
2011-12	56.0%	9.2%	0.6%	65.8%	2.4%	19.5%	12.3%	100%
2012-13	58.3%	9.0%	0.5%	67.8%	2.1%	17.7%	12.3%	100%
2013-14	59.2%	8.9%	0.5%	68.6%	1.9%	16.5%	12.9%	100%
2014-15	60.6%	8.5%	0.4%	69.5%	2.1%	15.2%	13.2%	100%
2015-16	61.3%	8.1%	0.3%	69.7%	1.9%	14.2%	14.2%	100%

Source: CEA

The CERC's report shows that volume of short-term transactions account for 10 percent of the total electricity generation in FY16 -- a sign that shorter-duration agreements are coming into vogue.

Table-7: Volume of Short-term Transactions of Electricity with respect to Total Electricity Generation

Year	Volume of Short-term Transactions of Electricity (BU)	Total Electricity Generation (BU)	Volume of Short-term Transactions of Electricity as % of Total Electricity Generation
2009-10	65.90	768.43	9%
2010-11	81.56	811.14	10%
2011-12	94.51	876.89	11%
2012-13	98.94	912.06	11%
2013-14	104.64	967.15	11%
2014-15	98.99	1048.67	9%
2015-16	115.23	1107.82	10%

Source: NLDC & CEA



"Indian power market has gradually shifted away from long-term PPAs to short and medium-term agreements. These days we find most of the procurers, even regulators at times, favouring relatively shorter-duration PPAs. Even long-term PPAs are being entered for 7-10 year duration instead of the conventional 25 years," Poddar told *Livemint*.

According to the CERC's report, the renewable energy certificate (REC) transaction, which is an instrument to promote renewable sources of energy, has increased by 62 percent in FY16 alone.

Table-37: Growth of Renewable Energy Certificates transacted on Power Exchanges, 2011-12 to 2015-16

Financial Year	Number of buyers	Number of sellers	Number of RECs transacted (Lakhs)	% increase in Number of RECs Transacted
2011-12	397	168	10.15	-
2012-13	802	487	25.90	155%
2013-14	1083	703	27.49	6%
2014-15	821	906	30.62	11%
2015-16	632	966	49.55	62%

Note: Number of buyers and sellers are upto November 2015

Source: NLDC

'India can earn 600 cr more from existing hydropower'

Business Line: June 23, 2017

There is scope for additional peaking support of 3,000-5,000 MW from all existing hydropower stations, according to a joint study by the Forum of Load Dispatchers and the Power System Operation Corporation.

The report, titled 'Operational Analysis for Optimisation of Hydro Resources & Facilitating Renewable Integration in India', was released by Minister of State (Independent Charge) for Power, Coal, New and Renewable Energy, and Mines, Piyush Goyal, at a meeting with the Forum of Regulators on Friday.

The report also notes that the country's existing hydropower stations have the ability to equally back down power in off-peak hours from the existing generation.

"The gain from the optimised despatch on annual basis is estimated to be 5 paise per unit, which is equivalent to earning of the order of ₹ 600 crore per year at all-India level," it says.

Goyal also launched the POSOCO-IMD weather portal for the power sector, and web portal MERIT (Merit Order Despatch of Electricity for Rejuvenation of Income and Transparency).

Now, a weather portal to aid discoms in power management

DNA: June 23, 2017

The government today launched a portal on weather information that will help discoms manage power distribution accordingly.

The government today launched a portal on weather information that will help discoms manage power distribution accordingly.

The weather information on the portal will also help in better planning for infrastructure availability to ensure cost effective and reliable supply, the power ministry said in a statement.



"Piyush Goyal, Union Minister of State for Power, Coal, New and Renewable Energy and Mines, launched weather portal for power sector in association with POSOCO and IMD at the meeting of the Forum of Regulators here today," the statement said.

Day to day weather variations have an impact on load demand and energy production, transport and distribution management as well as energy prices.

Extreme events such as heat waves or cold waves, wind storms or floods can have dramatic consequences on the production means or the electrical grid of a country, including physical damage to the infrastructure.

"The information available on the portal regarding weather forecast shall help state discoms to take pro-active steps regarding short term and medium term management processes and supply planning requirements and also for better planning for infrastructure availability to ensure cost effective and reliable supply," the statement added.

The portal provides regional weather outlook for current day and up to next 7 days. Weather stations of meteorological department have been mapped to the nearest important electrical station/power stations in each state.

During the meeting Goyal launched another portal 'MERIT' (Merit Order Dispatch of Electricity for Rejuvenation of Income and Transparency).

The portal has been developed by the power ministry in association with POSOCO and Central Electricity Authority.

The MERIT portal displays extensive array of information regarding the merit order of electricity procured by state(s) such as daily state-wise marginal variable costs of all generators, daily source-wise power purchases of respective states/UTs with source-wise fixed and variable costs, energy volumes and purchase prices, according to the statement.

The web-portal also give information regarding reasons for deviation from merit order such as must run conditions, transmission constraints etc.

Information available in the portal will help state discoms to optimise their power procurement in more efficient way, leading to lower cost of power to consumers.

It will also facilitate must run status for hydro and renewables and will promote use of green and clean power more transparently.

It will also promote competition for lower costs as information will be available to all stakeholders, including generators and utilities for more efficient procurement. Since the information will be available to all consumers on continuous basis, it will create pressure on utilities for continued efficiency.

India may struggle to achieve 2022 target of 175 GW renewable energy: Experts

Money Control : June 23, 2017

Experts list the lack of long term financing, inadequate budget allocation, and insufficient transmission and distribution, as the reasons behind the government falling short of its renewable targets.

India's attempt at ramping up its renewable energy capacity has got off to a slow start. Against the the target of installing 12 GW of solar capacity in fiscal year 2016-17, only around 6 GW was installed by April 2017.

Experts list the lack of long term financing, inadequate budget allocation, and insufficient transmission and distribution, as the reasons behind the underperformance.



"Most DISCOMs are still not willing to buy solar power owing mainly to power demand-supply situation changing to surplus. DISCOMs already have more power than they need and unfortunately, RPOs are not being enforced," Vinay Rustagi, MD of market research firm Bridge to India told Moneycontrol.

"Also, sharp reduction in tariffs in the last 3 months has made DISCOMs cautious and go slow on their ongoing procurement programmes as they find waiting a better option," he adds.

The pace of new solar tender announcements and completed auctions has slowed down significantly in the last year due to weak power demand growth in the country, as per a Bridge to India report.

Currently the world's fourth largest carbon emitter, India now aims to ramp up its renewable energy capacity to 175 GW by 2022, to provide clean energy at an affordable price. Such headwinds put India's renewable targets in jeopardy as out of the total, 100 GW (60 GW from grid connected and 40 GW from rooftop) is to come from solar energy.

So, what is the best case scenario? Rustagi says the government must aim to install about 60 GW of solar capacity by March 2022.

"Based on the current capacity of just over 12 GW, that means adding another 9.5 GW every year for the next 5 years," he said.

Debasish Mishra, Partner at Deloitte Touche Tohmatsu India LLP says that there will be slippages in the 40 GW of rooftop capacity target, while the ground mounted capacity of 45-50 GW is achievable.

Mishra also expects the government to achieve around 60-64 GW of solar capacity by 2022.

Tasked with achieving this goal, Renewable Ministry under Piyush Goyal rolled out a mix of subsidies and fiscal incentives to empower India's fledgling renewable industry.

"The government has worked hard to address many challenges facing the solar sector. Land and transmission situation has improved a lot, debt financing has become easier and growing volumes have helped to make solar power the cheapest new source of power," Rustagi says.

Money matters

Capital is the major reason why solar projects have been struggling in India.

Piyush Goyal says that in order to achieve the proposed 100 GW target by 2022, the overall investment required would be around Rs 6 lakh crore or at Rs 6 crores per MW, as per present costs.

Financial institutions, especially banks are expected to fall short of contributing towards funding the huge renewable energy target. With mounting NPA's and bail-out of discoms being given higher priority, Indian lenders are likely to have their hands tied.

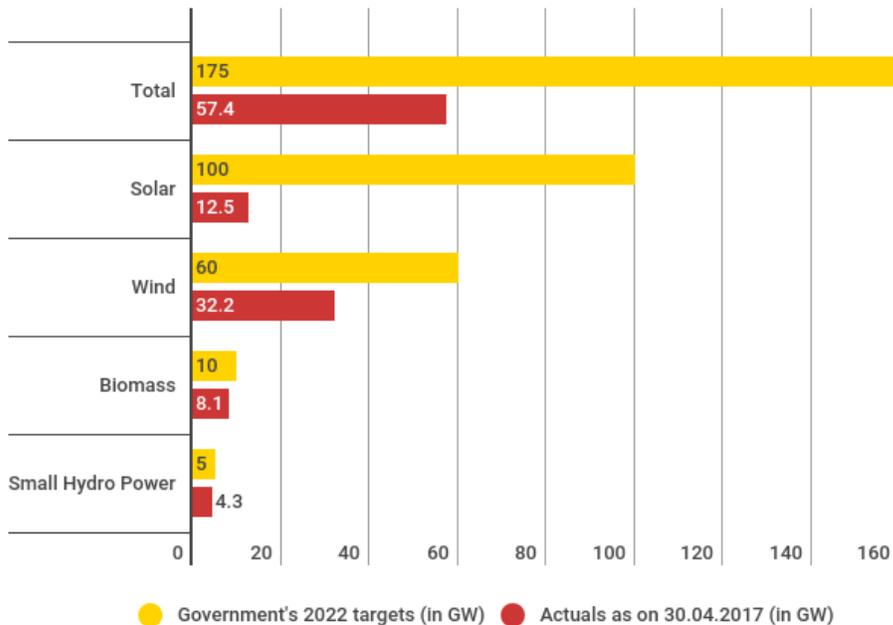
The renewable segment would have to access innovative ways like green bonds, climate bonds etc. for their capital requirements.

"The urgent need of the hour is for the government to take a long-term view and facilitate transition to a scenario where higher percentage of variable renewable power can be integrated into the grid," Rustagi says.

"The grid needs expansion and strengthening besides institution of a whole set of reforms relating to end consumer tariffs, ancillary services and building up energy storage capacity. Developers need to be assured that all the power generated by them will be evacuated and paid for," he adds.

“Proper planning of grid integration of the renewable energy capacity would help in achieving the ambitious targets,” Mishra says.

Status of renewable energy in India as of April 2017 compared with government's target of 2022



Source: MNRE

In the past three years, 2014-2017, grid connected renewable energy has seen a growth of 91 percent with a capacity addition of 22.6 GW.

The total installed capacity of grid renewable power stands at 57.26 GW, which accounts for 17.5 percent of grid power from all renewable resources.

Earlier under the JNNSM, the solar target for 2022 was just 20 GW which was increased five folds by PM Modi.

Though an ambitious target, it is necessary as India has committed to reduce its greenhouse emissions and to have 40 percent cumulative power capacity from non-fossil fuel based sources by 2030, under the Paris Agreement. This can only be achieved by significantly scaling renewable energy sources.

Save Energy. Save Money. Save the Planet