

TECA – NEWS CLIPPING

(Energy Conservation : It Doesn't Cost. It saves)

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தனியாரிடமிருந்து மீண்டும் மின்சாரம்

தினமலர்- March 26, 2016

தமிழ்நாடு மின் வாரியம், மதுரை பவர், 106 மெகாவாட்; பிள்ளை பெருமாள் நல்லூர், 330.50 மெகாவாட் மின்சாரம் கொள்முதல் செய்ய ஒப்பந்தம் செய்துள்ளது. இந்த நிறுவனங்களிடமிருந்து, ஒரு யூனிட் மின்சாரம், 12 ரூபாய் என்ற விலைக்கு வாங்கப்பட்டது.

இதனால், மின் வாரியத்திற்கு இழப்பு ஏற்பட்டதாக எழுந்த புகாரை அடுத்து, அந்நிறுவனங்களிடம் இருந்து மின்சாரம் வாங்குவதை மின் வாரியம் தவிர்த்து வந்தது. தற்போது, மின் தேவை அதிகரித்து வருவதால் அதை பூர்த்தி செய்ய, மின் வாரியம் திணறி வருகிறது.

இதனால், மார்ச், 14, 15, 16ம் தேதிகளில், பிள்ளை பெருமாள், மதுரை பவர் நிறுவனங்களிடம் இருந்து, ஒரு யூனிட், 5.50 ரூபாய் என்ற விலையில் மின்சாரம் வாங்கப்பட்டது.

கடந்த சில தினங்களாக, மின் தேவை, 13 ஆயிரத்து, 500 மெகாவாட்டை தாண்டி வருவதால், மார்ச், 24, 25ம் தேதிகளில், இரு நிறுவனங்களிடம் இருந்தும், மின் வாரியம் மீண்டும் மின்சாரம் வாங்கி உள்ளது.-

Tangedco sets up centre to tap renewable energy

The Hindu: March 26, 2016

It will coordinate with State Load Despatch Centre to handle wind energy, solar power

The dependence on coal-fired thermal power stations to meet the huge energy demand despite the State having more than 7,000 mega watt (MW) of installed wind capacity is set to change in the coming days with the Tamil Nadu Generation and Distribution Corporation (Tangedco) planning to optimally use the generated wind energy.

As part of this, Tangedco has started a Renewable Energy Management Centre (REMC) to handle wind energy and solar power by coordinating with the State Load Despatch Centre (SLDC).

A senior Tangedco official said the REMC's role will be to forecast and schedule the wind energy patterns, normally treated as 'infirm' energy. The immediate effect of the creation of the centre was the absorption of wind power of more than 1,200 MW on March 22. So far more than 90,000 million units of wind energy (see table) have been fed into the grid from an installed capacity of 7,252 MW, he added. The officials at the centre are positive about harnessing wind energy to the maximum, utilising scientific forecasting by the National Institute of Wind Energy (NIWE) and data received from the installation of real-time meters from the 117 pooling substations of the windmill farms.

Till last year, there was the grievance from windmill generators was that they were asked to back down on wind generation. This could be attributed to lack of background data about wind



patterns, the inability to immediately shut down or re-start thermal stations given that wind generation is volatile, and the need to safeguard the electricity grid from unpredictable electricity flow. The problem of evacuation of wind energy has also been overcome with the completion of the Green Energy Fund Corridor distributed through German Development Bank to strengthen evacuation of wind energy by installing five 400 kilo volt (KV) substations including at Thappugundu, Anaikadavu and Rasipalayam, and 540 kilometres of transmission lines.

With more than 1,200 MW of solar power supposed to be added to the State grid by the end of this year, the total installed capacity of renewable energy would tip over 11,000 MW.

Hydro energy

While hydro energy is not treated as renewable energy, water being a natural source, the State could still well exploit it. Tangedco has a 2,284 MW installed capacity of hydro stations. The officials pointed out that the Tangedco's hydro stations depend on dams controlled by the Water Resources Department, which gives priority to release water for irrigation. Due to these reasons, power is generated from hydro stations only during peak hours to offset any deficiency of electricity demand.

In such a situation, REMC officials are hopeful of meeting one-third of the total power demand expected to touch 15,000 MW this year by tapping renewable energy.

A future that bets on renewable energy sources, experts pointed out, would be the path the State should take. Given the immense potential of solar energy generation, and the marginal possibilities of wind and hydro power, Tamil Nadu would do well to look at enhancing its capacity to harness these systems.

Wind energy generation picks up in State

The Hindu: March 24, 2016

With energy consumption peaking in summer, the power managers were in for a pleasant surprise on Tuesday as wind energy generation in the State was over 1,000 MW.

Usually, the wind energy accounts for about 400 MW in the month of March. And the season for wind power begins usually in May ahead of southwest monsoon and lasts till September. Tamil Nadu has more than 7,500 MW of installed wind energy capacity.

Consumption of wind energy on Tuesday was 16 million units (constituting five per cent of the total energy consumed). Meters have been installed at all the wind energy pooling sub-stations across the State.

Since last August, the producers have been giving a forecast to the Tamil Nadu Generation and Distribution Corporation (Tangedco) on the energy generation expected.

Delayed tariff hikes among main reasons for discoms' losses: ICRA

The Financial Express: March 24, 2016

Debt-laden state-owned power distribution companies (discoms) continue to drag their feet on the then promised tariff revisions for the next fiscal, despite growing revenue gaps for several utilities, Icra said on Wednesday.

Debt-laden state-owned power distribution companies (discoms) continue to drag their feet on the then promised tariff revisions for the next fiscal, despite growing revenue gaps for several utilities, Icra said on Wednesday.

Delayed and inadequate tariff hikes that don't reflect costs have been one of the primary reasons for sustained losses reported by these discoms.

"Distribution utilities in only 19 of the 29 states have filed tariff petitions for FY17 so far. This is less than satisfactory given that utilities were required to file tariff petitions for next fiscal by



November 30, 2015 under the tariff regulations, so that tariff orders could be issued by the end of March 2016," Icrea said in its report.

It added that only four states — Bihar, Odisha, Mizoram and Manipur — have issued tariff orders for the next fiscal, while large states such as Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal are yet to file tariff petitions for the next fiscal. Among these, Rajasthan and Uttar Pradesh have officially signed up for the discom-revival plan UDAY and have also started issuing bonds against half of the discoms' short-term liabilities.

The delay in filing tariff petitions is further compounded by inadequate hikes sought from the regulator. While discoms in states such as Bihar, Karnataka, Madhya Pradesh, Nagaland, Telangana and Uttarakhand have proposed a tariff revision in the range of 7%-25%, those in other states such as Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Punjab and Odisha have not proposed any tariff revision, and have left the treatment of the revenue gap to the discretion of the respective state regulators.

"The aggregate revenue gap arising out of the tariff petitions filed by the distribution utilities in 13 key states is estimated at Rs 733 billion, which is equivalent to 28% of the net aggregate revenue estimate," Icrea said.

Positive changes in power sector

The Hans India: March 21, 2016

Survey suggests possibility of achieving reasonably greater progressivity in tariff structures with lower tariffs for the poor

The Economic Survey 2015-16 suggests that the new paradigm of surplus power sets the stage for continuing these reforms so that India can become 'one market' in power; the burden on industry can be relieved, allowing it to become internationally competitive as envisaged in "Make in India"; tariffs can be made simple and transparent, avoiding proliferating end-use charges; and by taking advantage of the possibility of greater progressivity in rate-setting, charges for the poor could be reduced while generating more revenues

State Governments and State Regulators will have a key role to play, with helpful facilitation from the centre. The power sector is a perfect crucible for making effective the cooperative-competitive federalism experiment that is now India, the Survey adds

Several sweeping changes have taken place in the power sector which are as follows: -

- There has been record addition to generation capacity. 2014-15 marked the highest ever increase in generation capacity: 26.5 GW, much higher than the average annual addition of around 19 GW over the previous five years.
- Capacity enhancements in the power sector are unprecedented. These measures have helped to reduce India's peak electricity deficit to 2.4 per cent, the lowest ever.
- There has been a comprehensive initiative to improve the health and performance of power distribution companies—UDAY, the Ujwal DISCOM Assurance Yojana
- Indian Railways is attempting to shift to open access for power purchase.
- Renewables have received a major policy push. Targets have been revised from 32 Gigawatts to 175 Gigawatts by 2022. In the latest round of auction under the National Solar Mission, tariff reached an all time low of Rs. 4.34 /KWh.
- Tantalising signs of moving to One Market in Power are becoming evident.
- Notwithstanding these major successes, the Economy Survey observes that the complexity of the Power Sector is such that daunting challenges remain. In particular:



- Complexity of tariff schedules prevents economic actors from responding sufficiently to price signals.
- Average tariffs in some cases are set below the average cost of supplying electricity.
- High industrial tariffs and variable quality of electricity adversely affects "Make in India"
- Price and non-price barriers come in the way of single-nationwide electricity prices through open access.
- Determination of progressive tariff schedules for domestic consumers.

The Survey discussed some longer term policy issues for the power sector which are as follows:-

- Power tariff schedules are currently complex. For example, in certain states there are separate tariffs for poultry farms, pisciculture, wetland farms (above and below a certain size), mushroom and rabbit farms, etc. By contrast, other energy products are characterised by a single price—or at most a few prices—across end users.
- Given high tariffs on industry, firms may be shifting from purchasing electricity from utilities to generating their own power.
- 47 per cent of firms report using a diesel generator
- Between 2006-07 and 2014-15, electricity procurement from utilities grew by 4.6 per cent annually, slower than the 9.3 per cent growth in self-generation.
- Cross-subsidy surcharges and non-price regulatory measures are key tools for balancing DISCOMS' equity and access considerations, but they may also hinder the creation of a nationwide electricity market.
- Compared to other developing countries, India's domestic power tariff schedules have greater scope for progressivity. Increases in tariffs for rich households can be achieved while maintaining or reducing tariffs for the poor.

Will Piyush Goyal's power play revive the ailing sector?

LiveMint- March25,2016

India's power minister is engineering a turnaround of state discoms, considered the weakest link in the entire electricity value chain, by instilling greater efficiency and financial discipline in them

It took nine months and more than 1,000 intensive meetings for the nitty-gritty to be worked out.

Top civil servants in the power ministry brainstormed with the other arms of the federal government, state administrations, electricity producers and distributors, equipment and coal suppliers, lenders, investors and consumer organizations.

Minister for power, coal and renewable energy Piyush Goyal personally presided over 200 of those meetings.

The outcome of it all was the Ujwal Discom Assurance Yojana, whose acronym Uday is Hindi for sunrise and which Goyal is convinced will be a game changer for India's power sector. Discom is short for (power) distribution companies.

"Never before in the history of India has such a comprehensive power sector reform, which has the potential to completely transform the sector into a vibrant, efficient and well-oiled state machinery, been undertaken," Goyal said

"...it covers the entire value chain in the power sector from fuel, to generation, transmission, renewables, distribution and consumers. It has a very vast canvas determined through a bottom-up approach."

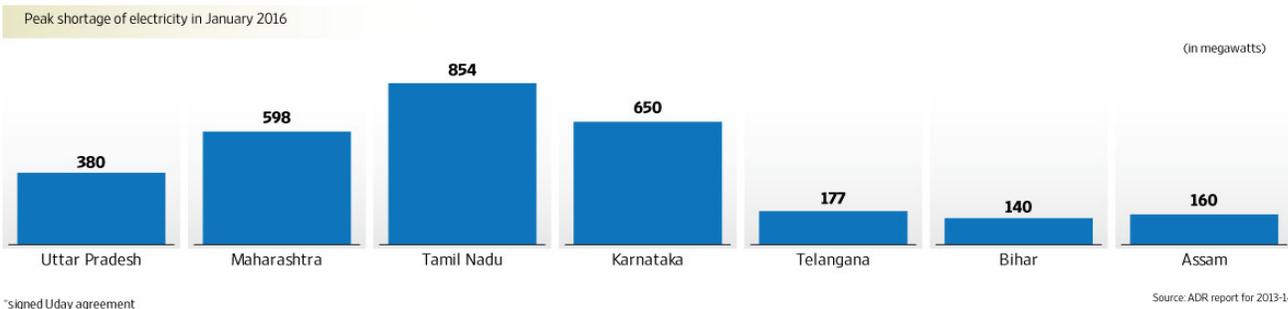
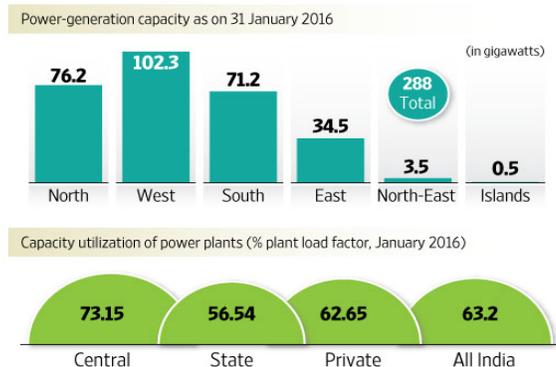


Uday, which was announced in November, is essentially a bailout of India's almost bankrupt state-owned discoms that are weighed down by Rs.4.3 trillion of collective debt and Rs.3.8 trillion of losses and can't even afford to buy electricity from power generators.

The scheme envisages the states taking over 75% of the debt held by their discoms as of 30 September—50% in the year ending March 2016 and 25% in the next fiscal. Discoms will sell bonds guaranteed by state governments to cover the balance 25% of the debt. The idea is to retire costly loans with cheaper ones, taking advantage of state governments' better creditworthiness.

"The revival of the utilities is key to the overall power sector. Once the financial position of the distributors improves, a higher offtake of power can be expected, which will also address allied problems such as surplus coal stock, rationalization of coal linkages and coal swapping from inefficient to efficient plants," said Kalpana Jain, senior director, Deloitte in India.

REALITY CHECK



Shortage of power has often been cited by investors as a deterrent in setting up production plants in India, which, under the National Democratic Alliance (NDA) government, is seeking to increase the share of manufacturing to 25% of gross domestic product (GDP) from 15%.

A vicious circle has been responsible for the unending woes of the power sector in India.

The country has around 289,000 megawatts (MW) of electricity generation capacity—on paper. Many power plants, however, run way below their capacity, some at half their potential.

Discoms, under pressure from state governments that are fretful of losing their vote banks, don't raise tariffs that are way below production cost.

The chronically power-deficit nation of 1.3 billion people is hungry for electricity to run factories and light up homes, but distributors prefer to cut supplies to consumers rather than buy available power, in the process renege on their purchase agreements with producers.



Power generators, especially thermal power producers, for whom shutting a plant is not an option because it would take days to get it running again, tend to sell electricity below cost to avoid losing customers.

Running a thermal plant at low capacity increases the power generation cost per unit, taking its toll on the financial health of power producers.

What Goyal is trying to do is prevent further spread of the contagion from the failed discoms to other segments of the sector by prompting the states to take over their debt. In the process, he has also provided relief to banks that have advanced loans to discoms.

Uday doesn't stop at debt refinancing; by making the state government a party in executing the performance milestones of a discom, it is making the states a vested interest in ensuring that the discoms are disciplined.

If the discoms don't improve billing efficiency, cut power theft and break even in two years, any debt incurred by them will be counted as part of state fiscal deficit from 2018-19. The debt taken over by the state is now not counted as part of the state's fiscal deficit and its borrowing limits (3% of state gross domestic product).

To get the states to sign up for the scheme, Uday offers priority in allocation of funds in other centrally funded schemes.

So far, Uday has already covered 90% of the Rs.4.3 trillion discom debt. Nine states have signed the Uday agreement with the federal government and their discoms.

Under the scheme, the 12% cost of servicing the debt of the discoms will come down to 8% for three-fourths of the loans taken over by the state and to 9% on the remaining loans that will be refinanced by the utility with state-guaranteed bonds.

The total annual savings on interest cost could be about Rs.33,000 crore for the total outstanding debt of Rs.4.3 trillion.

The scheme will lead to a pick-up in electricity demand as utilities gain the fiscal space they need to spend on investments and on power procurement, says Santosh Kamath, partner and lead for renewable energy at consulting firm KPMG.

But the tougher part is putting their business in order to prevent future failures. The power sector being infrastructure intensive—no two players can install cables at the same place and compete to serve the same customer—there is a natural incentive for inefficiency.

Secondly, improving billing efficiency and cutting power theft needs political will at the state level. According to the Independent Power Producers Association, uninterrupted power supply is assured in most states only because of political considerations, not because of efficiencies.

"If they continue to do this, losses are bound to increase," the association said in a note on Uday.

Thirdly, electricity being a state subject, power tariffs are set by state electricity regulators, in which the Union government has no say.

In the case of many states, about one-third of the existing gap between the cost of supplying power and the price realized from the consumer has to be bridged by way of tariff increases, while the rest can be addressed through improved operational efficiency.

According to Sanjay Agarwal, principal secretary (energy) of the Uttar Pradesh government, about 30-40% of the Rs.1.76 difference in the cost of power and the price charged to consumer for every unit of power in the state has to be brought down by tariff revisions.

Uttar Pradesh, India's most populous state, took over 75% of the outstanding loan liabilities of five power utilities amounting to Rs.39,900 crore on 30 January.



Like power tariff revisions, the responsibility for implementing many of the proposals in the revised power tariff policy the federal cabinet cleared on 21 January, too, is with state electricity regulators.

Besides a monthly or quarterly revision of tariffs charged from consumers, the revised policy proposes to allow producers to pass on any increase in statutory levies to discoms. It also allows them to find industrial consumers for power that debt-ridden state utilities fail to purchase.

These proposals have a persuasive value with state regulators. Analysts believe the idea of including power utility debt in states' fiscal deficit from 2018-19 may discourage wildly populist measures by state authorities.

The idea of shifting future debt of utilities that are bailed out under Uday is to get states' borrowing limits tied to the efficiency of their discoms.

"Uday will have a short-term beneficial impact but in the long term, the state electricity boards will have to become efficient, which would necessitate the involvement of the private sector in the state electricity boards' working," says Kuljit Singh, a partner in EY, the consulting firm formerly known as Ernst and Young.

Goyal is counting on power distributors becoming more efficient rather than on tariff revisions for their return to health.

According to the minister, reforms in the sector, including swapping of coal between less efficient thermal plants and the more efficient ones, utility debt restructuring, reduction of power theft, expansion of existing thermal plants' capacity and promotion of energy-efficient lamps, pumps and fans, are expected to bring savings of Rs.1.8 trillion a year from 2019 onwards.

While fuel supply to plants has substantially improved with coal auctions, improved logistics, and higher production by state-owned Coal India Ltd, the world's largest producer of the fuel, power sales by generators are a challenge, said Kameswara Rao, leader of the energy, utilities and mining practice at PricewaterhouseCoopers India.

"Over 21 GW (gigawatts) of thermal power generation capacity lacks firm power purchase agreements and several projects suffer poor returns due to regulatory restrictions on cost recovery. This is likely to affect future investments in power generation," said Rao.

According to Rao, the gap between revenue recovery and electricity supply costs of distributors has widened from 18% to 22% between 2007 and 2014. The utilities should use Uday to improve operational performance, he said.

"The regulators, too, must implement the revised tariff policy in spirit and letter to improve discom cash flow and viability of the entire sector," he said.

The government is trying to supply subsidized imported natural gas to stranded power plants so that they are able to run, even though at less than full capacity, and service their debt.

The oil ministry's new hydrocarbon exploration licensing policy (Help), which promises pricing freedom for natural gas, has the potential to address the shortage of gas as it incentivizes investors to bring discoveries to production faster. Gas-based power generators are ideal to stabilize the electricity grid when renewable power is not available during night.

While political opposition has stalled the rolling out of a goods and services tax that seeks to remove barriers to the movement of goods and services across state borders, the government has managed to pursue policy reforms in the power, coal, oil and gas sectors.

For instance, coal blocks are now electronically auctioned, a departure from the earlier practice of allocating them. Also, more capacity is being built to re-gasify imported liquefied natural gas (LNG)—a cleaner fuel for power plants.



Flawed assumptions by investors during the economic boom years that preceded a downturn starting in 2011-12 are partly responsible for the woes of the power sector. That explains why the country's ambitious capital-intensive ultra mega power projects (UMPPs) of 4,000MW thermal power capacity have only had partial success.

Reliance Power Ltd's Sasan UMPP in the central Indian state of Madhya Pradesh and Tata Power Co. Ltd's Mundra plant in Gujarat are operational. But Reliance Power's Krishnapatnam project in Andhra Pradesh, and Tata Power's Tilaiya project, in the eastern state of Jharkhand, are stuck due to issues relating to coal availability and land acquisition, respectively.

The government is also engaged in increasing the share of solar and wind power in India's energy mix.

To meet its target of reducing carbon emissions by 30-35% by 2030, India has set an ambitious target of increasing renewable power generation capacity to 175,000MW by 2022 from 37,000MW at present.

While the solar power tariff has come down sharply from about Rs.15 a unit a few years ago to Rs.4.34 a unit now and encouraged states to raise solar capacity, hydropower and gas-based power generation have become even more vital for stabilizing the grid.

The power ministry is working on a plan to incentivize large hydropower projects modelled on UMPPs, in which all approvals and land-use rights would be readily available.

The reforms in the electricity sector are also aimed at achieving a social goal—to bring uninterrupted power to every household in every village.

Achieving the goal of providing uninterrupted and affordable power for all requires the entire power industry as well as the coal and gas sectors, which are at present regulated, functioning seamlessly.

That involves making sure that electricity producers get affordable supply of coal and natural gas, competition drives down tariffs, the transmission network is congestion-free, distributors become more efficient by eliminating power theft, and populism does not come in the way of efficient functioning of the electricity market.

Achieving the goal of a single, seamlessly functioning electricity market across the country could be a life-transforming triumph for the industry and for consumers, given the differing political goals that the different states pursue in a federal set-up.

The NDA government thinks the goal will be met because Uday has what it takes to be a success.

"Uday is a shining example of the utilization of the best principles of cooperative and competitive federalism..." the government said at the launch of the programme. "Adopting Uday is optional for states, but provides the fastest, most efficient and financially most feasible way for providing 24x7 power for all."

Save Energy. Save Money. Save the Planet