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## **Tamil Nadu joins UDAY; could accrue Rs 22,000-crore benefit in first 3 yrs**

**Business Standard: January 9, 2017**

TN had been reluctant to join UDAY over mandatory revision of tariff every quarter under the scheme

After serious opposition in the past, Tamil Nadu has decided to join the Centre's Ujwal DISCOM Assurance Yojana (UDAY) scheme, which is meant to revive the debt stressed discoms in the country. Tamil Nadu will be the 21st state to join the scheme, which would help the Tamil Nadu Generation and Distribution Corporation (TANGEDCO) to save around Rs 11,000 crore.

The state would receive a benefit of about Rs 22,000 crore in the first three years from the scheme and about Rs 7,000 crore every year after that.

However, the flip side of joining the scheme is that the state's finances are expected to come under further pressure as 75 per cent of the Rs 30,420-crore debt of TANGEDCO will come to the state's balance sheet. The power distribution utility of Tamil Nadu alone has a debt of around Rs 50,000 crore. The overall debt of the discom has gone up to over Rs 80,000 crore, from around Rs 40,000 crore in 2010-2011.

The scheme envisages that the state will take over 75 per cent of the discom's debt in two phases and issue bonds backed by the state government as guarantee for the remaining 25 per cent.

The scheme also mandates state discoms to achieve a turnaround through regular tariff hikes and wants states to keep the interest payment on bonds within the Fiscal Responsibility Budget Management Act, which stipulates that states should keep their fiscal deficit within three per cent of the gross state domestic product (GSDP). Tamil Nadu had reservations about the conditions in the scheme, which seem to have been sorted out.

On January 4, Tamil Nadu's Cabinet gave its nod for joining the UDAY scheme. It may be noted that under the leadership of former chief minister J Jayalalithaa, the state government had been opposing the scheme on various grounds and had urged the Centre to rectify the clauses which were perceived to be harmful for Tamil Nadu.

Tamil Nadu had been reluctant to join UDAY, as it would be mandatory for states to revise power tariff every quarter under the scheme. The state had also been pushing the Centre to allow it to cross the fiscal deficit limit of three per cent of GSDP to enable it to absorb TANGEDCO's debt.

After a series of discussions, the state and centre made some headway after a meeting between Union Power Minister Piyush Goyal and Jayalalithaa in July and broad parameters had been broadly worked out back then.

On October 21 last year, a team led by the state's power minister, P Thangamani, held talks with the Union power minister again and an agreement was reached on many points.

The key demands of the Tamil Nadu government accepted by the Union power ministry were: no quarterly tariff revision, and that bonds to be issued by TANGEDCO for repaying loans should be for 15 years, with a five-year moratorium and exemption from FRBM norms for the bonds allowed for two years.

The state government has been working on reducing the debt of the discom in the past. The government has earmarked a total financial support of Rs 13,586 crore for the power sector in the Budget Estimates 2015-2016. It has extended Rs 11,748 crore of support to TANGEDCO in



the form of subsidy, share capital, cash-loss financing, debt servicing and debt takeover during 2014-15.

A senior official from the state government had earlier said that the debt has gone up since the electricity board is spending almost Rs 10,000 crore every year as capital investment, for which it has to borrow money.

### **No change in tariff, freebies post-Uday: Tangedco**

Deccan Chronicle : January 17, 2017

In a bid to put an end to Opposition parties' speculation over joining the Centre's Uday scheme, Tamil Nadu Generation and Distribution Corporation has posted a question and answer format statement on its website making it clear that there would not be any hike in power tariff affecting public. Also free power supply to farmers, huts and weavers will continue.

After opposing scheme, the state government signed Uday that aimed at achieving operational and financial turnaround of power distribution company last week. DMK working president M. K. Stalin wanted to know why the government joined the scheme opposed by Jayalalithaa when she was alive. He also wanted to know whether the free power supply to farmers and weavers would be continued or not.

In its website post titled "About Uday Scheme", Tangedco said the state government signed the tripartite agreement with the Centre only after it agreed to former chief minister's demand for scrapping the condition for raising the power tariff every three months.

The Tangedco's total outstanding loan as on September 30, 2015, under generation and distribution heads was Rs.81,312 crore. The state government would take over 75 per cent of Rs 30,420 crore under distribution head that is Rs 22,815 crore and the rest of the loan amount will be retired by the utility through issue of bonds. "With the saving on the interest and principal repayment of loan taken over by the state government through Uday scheme, Tangedco's revenue deficit will come down to Rs 1500 crore in 2017-18 and will earn profit in the next fiscal. Hence, there will not be any hike in power tariff affecting the public," it said.

The utility assured that no meters will be fixed for agricultural and hut consumers and domestic consumers will continue to get 100 units free power. "The handloom and powerloom weavers will continue to get free power of 200 units and 750 units," it said, adding that under the scheme, all consumers using over 200 units, except farmers and hut, would be provided with smart meters.

### **Tamil Nadu becomes 21st state to join UDAY : State to derive an Overall Net Benefit of approximately Rs. 11,000 crores through UDAY**

Press Report issued by Ministry of Power : January 9, 2017

Union Minister of State (IC) for Power, Coal, New & Renewable Energy and Mines, Shri Piyush Goyal presided over the signing of the Memorandum of Understanding (MOU) under the Ujwal DISCOM Assurance Yojana (UDAY) Scheme with the Government of Tamil Nadu and its Discom TANGEDCO, for operational and financial turnaround of the DISCOM, in New Delhi today. The signing ceremony was held in the august presence of the Shri P. Thangamani, Minister for Electricity, Prohibition & Excise, Government of Tamil Nadu.

Tamil Nadu would derive an overall **net benefit of approximately Rs. 11,000 crores** through UDAY, by way of savings in interest cost, reduction in AT&C and transmission losses, interventions in energy efficiency, coal reforms etc. **The state also signed 24X7 Power For All document on the occasion. With Tamil Nadu joining the cause, 92% of country's Discom debt has been covered under UDAY**

By signing the MOU under UDAY, the State Government is taking over 75% of **debt of Rs. 30,420 crores of TANGEDCO**. The scheme also provides for the balance debt to be re-priced or issued as State guaranteed Discom bonds, at coupon rates around 3-4% less than the average



existing interest rate. The State would have **savings of about Rs.950 cr. in annual interest cost** through reduction of debt and through reduced interest rates on the balance debt.

**UDAY lays stress on improving operational efficiencies of the DISCOMs.** Tamil Nadu and TANGEDCO have committed to bring about operational efficiency through compulsory feeder and distribution transformer metering, consumer indexing & GIS mapping of losses, upgrade/change transformers, meters etc., smart metering of high-end consumers, reduction in transmission losses and increased power supplies in areas with reduced AT&C losses. The reduction in AT&C losses and transmission losses to 13.5% and 3.7% respectively is likely to bring **additional revenue of around Rs. 1,601 crores to TANGEDCO.**

**Demand Side interventions** in UDAY such as usage of energy-efficient LED bulbs, agricultural pumps, fans & air-conditioners and efficient industrial equipment through PAT (Perform, Achieve and Trade) would help in reducing peak load, flatten load curve and thus help in reducing energy consumption in Tamil Nadu. The gain is expected to be **around Rs. 2,304 crores.**

The Central government would also provide **incentives to the State Government and the Discom** for improving the power infrastructure in the State and for lowering the cost of power. The State would get additional/priority funding through the Central schemes such as Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Power Sector Development Fund (PSDF) or such other schemes of the Ministries of Power and New & Renewable Energy, if they meet the operational milestones outlined in the scheme.

The State shall also be supported through additional coal at notified prices and in case of availability through higher capacity utilization, low cost power from NTPC and other CPSUs. Other benefits such as coal swapping, coal rationalization, correction in coal grade slippage, availability of 100% washed coal would help the state to further reduce the cost of power.

The State would **gain around Rs. 4,320 crores due to these coal reforms.** With the financial turnaround through financial and operational efficiencies, TANGEDCO's rating would improve, which would help in raising cheaper funds for its future capital investment requirement. This is expected to provide **interest cost saving of around Rs. 60 crores for TANGEDCO in 3 years.**

The ultimate benefit of signing the MOU would go to the people of Tamil Nadu. Higher demand for power from DISCOMs would mean higher Plant Load Factor (PLF) of generating units and therefore, lesser cost per unit of electricity thereby benefitting consumers. Availability of 24x7 power for all would increase the economic activity and improve employment opportunities in the State.

## **Wind power developers are blowing into TN**

**Business Line: January 10, 2017**

In the country's first competitive bidding for wind power projects, developers have overwhelmingly chosen Tamil Nadu to set up their units.

Thirteen wind power producers have bid for a total capacity of 2,644 MW. The bidders specify the State where they intend to put up their projects.

Eleven bidders have said they would set up projects in Tamil Nadu, and the total capacity of Tamil Nadu bids adds up to 1,794 MW.

The winners will be chosen on the basis of the tariffs. Those who offer to sell their power the cheapest will get to sign power purchase agreements with the Solar Energy Corporation of India (SECI), the Central government agency organising the bidding.

SECI, in turn, will enter into back-to-back power sale agreements with electricity distribution companies of various State governments. The tariff bids will be opened in about three weeks. Experts expect the tariffs to be around ₹4.5 a kWhr.



This is the first time that such an exercise has been organised in the country. Up until now, the tariff (called 'feed-in tariff' or FIT) that wind power companies get was decided by the respective electricity regulatory commission of the State.

Power companies could also set up wind projects and sell electricity to third parties with tariffs agreed to bilaterally. Unlike in the case of solar, tariffs have never been arrived at through a competitive bidding process.

The wind industry has until now resisted competitive bidding, fearing that it would become the norm and bring down tariffs. Rajasthan first spoke of bringing in bidding, but it never happened.

### **Tamil Nadu - Govt. depts. owe TANGEDCO over Rs.700 crore**

**The Hindhu : January 10, 2017**

When demonetisation was announced on November 8 last year by Prime Minister Narendra Modi, some of the beneficiaries turned out to be the Corporations and municipalities in the State with property owners rushing to repay huge amounts of property tax arrears with the demonetised currency.

However, one department which has failed to reap benefits from the demonetisation drive is the Tamil Nadu Generation and Distribution Corporation (TANGEDCO). It has been financially weighed down by more than Rs 700 crore of arrears in electricity bills from different government departments which seem to be chronic defaulters in the State.

In November 2015, the arrears by various government departments was Rs. 93.79 crore which has 'gradually' grown over the years and now stands at over Rs.700 crore.

Several government departments, including the Tamilnadu Water and Drainage Board (TWAD), corporations, municipalities and village panchayats, have been defaulting on electricity bills regularly that TANGEDCO officials are finding it difficult to recover the arrears.

A senior official of TANGEDCO said demonetisation has not benefited the electricity department in any way.

## TOP DEFAULTERS

The electricity bill arrears owed by various government departments to TANGEDCO

TWAD Board **330.59**

Village panchayats **278.14**

Corporations **51.78**

Municipalities **44.28**

Town panchayats **10.75**

(Rs. in crores)



**Total**  
**₹ 715.54**  
**cr.**

While TANGEDCO has been able to control defaulters of low-tension power bill and commercial power bill by efficiently cutting off supply in case of default, the same stringent formula could not be applied to various government departments because they are categorised as providing "essential services" to the public.

'All steps taken'

The senior official said, "We have used all measures to recover the dues — from requesting the department heads to even threatening to cut off power supply. But, the arrears have only increased over the years."

The senior official said various departments owe TANGEDCO a total of Rs. 715.54 crore.

Giving data about the default amount, he said TWAD Board tops the arrears list with Rs. 330.59 crore followed by village panchayats at Rs. 278.14 crore, corporations Rs. 51.78 crore, municipalities Rs. 44.28 crore and town panchayats Rs. 10.75 crore.

The official also gave the break-up of the TWAD Board top defaulters in which Mettur has a huge arrears of Rs.60.35 crore followed by Tirunelveli at Rs.34.57 crore, Coimbatore North Rs. 20.95 crore, Tiruchi (Metro) Rs.20.81 crore and Karur Rs.18.91 crore.

Similarly, the list of corporation defaulters shows Salem Corporation owing Rs.19.5 crore, Thanjavur Rs 16.14 crore, Tirupur Rs.7.31 crore and Chennai Rs.4.88 crore.

The official of the Electricity Department said letters written to the Secretaries of these departments by the Chairman and Managing Director M. Saikumar in September 2015 reminding them about the electricity bill arrears in 2015 did not yield any result



## **Tamil Nadu tenders 500MW solar to fill RPO shortfall**

**PVTECH: January 9, 2017**

The Indian state of Tamil Nadu has issued a request for submission (RfS) for 500MW<sub>ac</sub> of solar energy, continuing attempts to reach its Renewable Purchase Obligations (RPO), after a previous tender of the same size was undersubscribed.

The new tender document said that projects can be between 1-500MW<sub>ac</sub> in size, with PPAs to be signed with the Tamil Nadu Generation and Distribution Corporation (TANGEDCO) for a period of 25-years. TANGEDCO has set the benchmark tariff at INR4.50/kWh (US\$0.066). The deadline for submissions is 10 February 2017.

A different request for submission (RfS) was issued in October last year for 500MW<sub>ac</sub> with the maximum tariff set at INR5.10/kWh (US\$0.076), and with projects of only 1-50MW<sub>ac</sub> eligible, but this was significantly undersubscribed. At the time, Mercom Capital Group reported that the tender received bids aggregating just 117MW.

The original tender plans were approved by Tamil Nadu Electricity Regulatory Commission (TNERC) because the state sought to achieve its RPO's, which are set at 2.5% for the year 2016-17 and 5% for the year 2017/18. Roughly 3.2GW of solar power is required for the year 2017-18.

The state was the first in India to report solar curtailment and has seen delayed payments for both wind and solar projects, which are deterrents for developers. However, significant module price drops of late will make most tenders in India more attractive. Today, Tamil Nadu also signed up to the UDAY scheme, which could help its distribution company's (discom) finances in the long-term.

## **ABB wins Rs 4,350 cr power transmission project; teams up with Power Grid Corp**

**Business Standard: January 10, 2017**

Power and automation technology firm ABB said on Tuesday it has teamed up with Power Grid Corporation of India for a transmission link project worth over Rs 4,350 crore to bring reliable electricity to over 80 million people.

The Raigarh-Pugalur 800 kilovolt (kV) UltraHigh-Voltage Direct Current (UHVDC) system will connect Raigarh in central India to Pugalur in Tamil Nadu, the company said.

It said the 1,830 km link will be among the longest in the world, with a capacity of 6,000 megawatts -- the equivalent of more than six large power plants -- which will be enough to meet the electricity needs of over 80 million people.

Stating that the two-way link will integrate thermal and wind energy for transmission of power to high consumption centres located thousands of kilometres away, ABB said it will support electricity demands in the South, when wind strength is low, and transmitting clean energy to the North, when there is excess wind power.

"With our state-of-the-art UHVDC technology, we enable the balancing of renewable and conventional electricity supply over long distances in a smart and reliable way," ABB CEO Ulrich Spiesshofer said in a company release.

The total project value is worth more than Rs 5,700 crore and the balance will be executed by ABB's consortium partner BHEL, the company said, adding that the order was booked in the fourth quarter of 2016 and is expected to be completed in 2019.

Raigarh-Pugalur is ABB's sixth HVDC project in India and the second UHVDC installation, following the multi-terminal North-East Agra link, which has been already partially energised and is in the final phase of completion.



## **Centre's new power plan: Heavy electricity users will now pay lower tariffs**

**The Economic Times: January 14, 2017**

Major reforms of power tariffs are on the horizon as an official committee has recommended lower tariffs for heavy users to encourage electricity consumption as the country moves from a deficit to surplus situation. In India, power consumers have always been paying higher bills for higher consumption. Slabs are fixed and if you fall in the higher consumption range, you pay more. It's time the country doles out incentives for high power consumption, a committee constituted to advise the government on ways to increase electricity demand has said.

"The present tariff structure has been designed for power shortage scenario in states and has not been changed since Independence. Since India has excess electricity generation capacity now, the existing framework needs to be changed to address the capacity generation glut," said a member of the committee constituted by the power ministry in September last year to suggest innovative schemes for raising power demand.

The committee comprises of chairman of the Central Electricity Authority, secretary of the Central Electricity Regulatory Commission (CERC), president of industry body Ficci, energy secretaries of Bihar and Tamil Nadu and principal energy secretaries of Madhya Pradesh, Gujarat and Uttar Pradesh. The committee is in the process of finalising its report and is likely to present it to the power ministry by January-end.

The official said the committee is of the view that to boost electricity demand, rebates and incentives in electricity bills be extended to consumers.

The state electricity regulatory commissions should revise the tariff design for all consumers, particularly industry, commercial and service sectors, the official said.

Presently, consumers are penalised by way of higher tariffs for higher consumption.

The committee also opines in the draft report that more states can offer power at lower rates to industries during night and off-peak hours. Such system of differential tariff is in place in some states and Madhya Pradesh has seen increase in power consumption. The committee has also explored other short term and long term options for enhancing power consumption.

These include promoting manufacturing under Make in India through electricity assurance, encouraging use of electric vehicles and electric equipment in construction activities.

ET on December 25 reported that the government planned to introduce a new tariff structure to charge more from large domestic power consumers rather than industrial units that currently share the cross subsidy burden. Most states categorise households consuming more than 800 units of power a month as large domestic consumers.

## **India May Not Meet Renewable Energy Targets After All**

**The Economic Times: January 7, 2017**

In April 2016, Piyush Goyal, the Power and Renewable Energy Minister, reiterated that India's solar power targets – 100 GW by 2022 – were achievable, according to this government press release, but an IndiaSpend analysis shows that this expansion is challenged by weak infrastructure and a lack of cheap financing.

To achieve its targets, India must add 130.76 GW of renewable energy over the next six years, an average of 21.7 GW per year or, three times the capacity it added in 2016.

This target is crucial for India in achieving its goal to reduce global warming – by the year 2100, the earth's temperature could increase by an average of 1.8 degrees Celsius, in the best scenario, and four degrees Celsius, in the worst scenario, according to estimates by the Intergovernmental panel on Climate Change.



The power sector in India produces about half of all CO2 emissions in the country (805.4 million tonnes), according to the power ministry's Draft National Electricity Plan 2016; coal is the most polluting of all power sources.

In 2015, the world, through the Paris Agreement, agreed to limit the rise of the earth's temperature to under two degrees Celsius by the year 2100. As many as 162 countries, including India, have submitted their Intended Nationally Determined Contributions (INDC), documents which describe steps countries will take to limit global warming.

As part of its INDC, India has committed to source 40% of its electricity from non-fossil fuel sources by 2030.

In October 2016, renewable energy made up 15% of India's installed electricity production capacity, up from 13.1% in August 2015, according to government data.

### **India's Renewable Energy Targets: A Long Way To Go**

The government's ambitious target has created awareness about renewable energy. Even companies that do not benefit from government subsidies for renewable energy projects said the government's push for renewable energy has made consumers more aware about its virtues.

But India's renewable energy targets are "highly optimistic and not realistic", said Vibhuti Garg, a power sector expert at the International Institute for Sustainable Development, a Canada-based environmental non-profit.

The growth in renewable energy would have to keep pace with the increasing energy requirement of the population. One estimate puts the total requirement of electricity in India at 5,000 terawatt hour in 2040, a four-fold increase from 2014.

### **India Lacks Electricity Infrastructure To Support Growth of Renewable Energy**

Infrastructure for parks such as development of access roads, land acquisition for parks, and demarcation of land areas within solar parks, is incomplete, even after bids for projects are completed, which could affect project costs and profitability, according to the Mercom Capital Group report.

Further, power from sources such as wind and solar is intermittent, and forecasting of energy levels is weak. "We still don't know how much (electricity) capacity will be available and when," said Garg, which makes it an unattractive venture for power distribution companies to connect to renewable sources.

For instance, "What if it rains continuously for three days?" Garg said, adding that India still does not have reserve electricity capacity that could be used in such situations.

Another challenge is whether India's electricity grid has the capacity to take intermittent power surges that will occur because of renewable energy. The grid should also have the capacity to carry power from regions where power is generated to the regions where power is needed.

### **25 states fail to meet solar capacity target this fiscal**

**The Economic Times: January 16, 2017**

With six years left for India to achieve its goal of generating 100 GW of electricity from solar projects, 25 states have fallen short of adding capacity by some 2,000 MW so far in 2016-17.

The biggest laggards are Maharashtra, Uttar Pradesh, Haryana, Jharkhand, Odisha, J&K and West Bengal, each of them missing the mark by more than 100 MW. In terms of renewable power purchase obligations during 2015-16, only Andaman & Nicobar Islands, Meghalaya, Karnataka, Nagaland, Himachal Pradesh and Andhra Pradesh exceeded their targets, according to the government.

Tamil Nadu, Maharashtra, Rajasthan, Gujarat, Haryana, Madhya Pradesh, Chhattisgarh and



Punjab managed to meet about 60% of their obligation. The remainder achieved up to 59% of their targets, with Manipur and Goa not meeting any.

“Considering the actual renewable purchase obligation level specified by the state electricity regulatory commissions for the year 2016-17, it is estimated that 25 states/UTs require over 2,030 MW solar power capacity to fulfil the solar purchase obligation,” the Ministry of New & Renewable Energy said in a recent document.

Similarly, it is estimated that 22 states and UTs require over 9,080 MW of non-solar power capacity to fulfil their obligations to purchase energy from other renewable sources.

**Save Energy. Save Money. Save the Planet**

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