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#### 28.01.2017

#### Now, high tension consumers can apply online for connections

The Hindu: January 25, 2017

Electricity consumers do not have to visit the local electricity offices any more to submit application forms for getting new service connections.

The Tamil Nadu Generation and Distribution Corporation (TANGEDCO), following the successful launch of the online application for low tension (LT) consumers, has extended the online service to high tension (HT) service connections too.

A senior official of TANGEDCO, confirming the launch of the online application facility on January 4, said the consumers could apply through the web portal. He said guidelines and the process flow have been issued to all the local officials to be followed for new connections.

The applicant, on opening the web portal, has to select the type of application and fill in the required details in Form 4 prescribed by the Tamil Nadu Electricity Regulatory Commission (TNERC) and submit the application and upload the supporting documents as prescribed in the Tamil Nadu Electricity Distribution Code through the web portal for new service/additional connections and load reduction.

The official pointed out that the electricity supply would be effected within the time schedule prescribed in Distribution Standards Of Performance from the date of registration of application though priority for effecting new service/additional/reduction of load would be considered based on the area served by the substation feeder.

A similar set of guidelines have been issued for low tension consumers for effecting online service connections.

The TANGEDCO official said the aim of the online submission of application is to digitise the registration system to bring in transparency and to minimise human intervention in order to speed up the application process.

The online facility is at present available for applicants of 112 towns covered under RAPDRP project in the State.

The online submission of application is aimed at digitising the registration system, bringing in transparency

# Second Unit Of Kudankulam Nuclear Plant In Tamil Nadu To Begin Commercial Power Generation Soon

Indiatimes: January 27, 2017

The second unit of Kudankulam Nuclear Power plant will soon start commercial generation of power after it attained its full power generation capacity of 1,000 Megawatt last week.

The Unit 2, which was to be commissioned in 2008, attained criticality in July 2016 and has been generating power since. After more than a month after it attained criticality, the power generated in the unit was synchronised with the southern grid in August last year.

Till now 13,197 million units of electricity have been generated in the first unit of Kudankulam fetching Rs 1000 crore revenue for the unit. The nuclear power generation has gone up to 6,780 megawatts in the country with power generation in the second unit. The 1,000 megawatt Kudankulam nuclear power plant was built with Russian expertise in November 1988.

## ADANI groups sets up world's largest solar plant in Tamil Nadu ahead of schedule

DNA India: January 26, 2017

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It took 8,500 men working two shifts every day for six months - and three shifts for two months - to finish, ahead of schedule, the Adani Group's giant solar power plant in southern India. The vast, 10 sq km project in Ramanathapuram, in the southern state of Tamil Nadu, is the world's largest solar power station in a single location, according to the company. It has the capacity to power 150,000 homes - and it is one sign of how serious India is becoming about meeting its renewable energy targets.

Considering the delays that commonly bog down infrastructure projects in India, the speed at which the 648 megawatt project was completed demonstrates the country's commitment to renewables, said an analyst. "The government is very clear about its solar plan, and large installations are key to this plan," said Aruna Kumarankandath of the Centre for Science and Environment in Delhi. Prime Minister Narendra Modi "is a real evangelist", and has prioritised solar to meet the renewables target, she said.

As a signatory to the Paris Agreement on climate change, India is committed to ensuring that at least 40% of its electricity will be generated from non-fossil-fuel sources by 2030. While coal still provides the lion's share of India's energy, officials forecast the country will meet its Paris Agreement renewable energy commitments three years early - and exceed them by nearly half. A 10-year blueprint released last month predicts that 57% of total electricity capacity will come from non-fossil sources by 2027. Solar energy is a particular focus. It makes up 16% of renewables capacity now, but will contribute 100 gigawatts of the renewable energy capacity target of 175 GW by 2022. Of that 100 GW target, 60% will come from large solar installations. The government is planning 33 solar parks in 21 states, with a capacity of at least 500 megawatts each.

#### **GETTING CHEAPER**

India's ambitious targets come at a time when renewable energy is at a turning point in the country, as generating electricity from renewables costs nearly the same as from conventional sources. The urgency also aims to fill a gap: India is among the world's fastest growing economies, yet one-third of its households have no access to grid power.

The renewables goal will help ensure "uninterrupted supply of quality power to existing consumers and provide electricity access to all unconnected consumers by 2019", according to the blueprint. The Adani plant, built at a cost of 45.5 billion rupees (\$661 million), reflects the government's ambitions. It comprises 2.5 million solar panel modules, 576 inverters and 6,000 km of cables, the company said. The government grants some subsidies for solar and has raised the investment target for solar energy in the country to \$100 billion, with Japan's Softbank and Taiwan's Foxconn among others committing to the sector. But there are hurdles, with land availability for solar parks a chief concern. Conflicts related to land have stalled industrial and development projects in India, putting billions of dollars of investment at risk, according to a recent report.

"Land is definitely a concern, and there's also the issue of transmission," said Kumarankandath. "It's all very well to produce all this energy, but do we have transmission lines capable of taking it up? We're also going to need large quantities of water to clean the panels." Some states are passing new land laws to make acquisitions easier, while the government is also exploring innovative places to install solar panels, including across the tops of irrigation canals. Meanwhile, the Adani group, India's biggest solar power producer and also its top coal-fired generator, may be unseated before long by China, which is building what it claims will be the biggest solar farm on earth: an 850 MW plant on 27 sq km of land.

### 221 MW electricity to K'taka from Kudankulam

One India.com: January 26, 2017



Power minister The Kudankulam power plant that reached its maximum capacity of 1,000 MW on Saturday had reached criticality in July 2016, will now supply power to Karnataka too. Karnataka has started getting its share of 221 MW electricity from the Kudankulam Nuclear Power plant after Unit II of the plant attained its maximum capacity of 1,000 MW. The state's Power Minister D K Shivakumar told OneIndia that the state will continue to receive supply from the nuclear power plant in Tamil Nadu as per the agreements signed in March 2014. "According to our agreement with the central generating station, Karnataka is to receive 221 MW when the plant's unit two reaches its maximum capacity of 1,000 MW. Unit two reached 1,000 MW capacity last Saturday and transmission to Karnataka has already begun," said D K Shivakumar. The minister also claimed that the current power situation in the state is comfortable and the supply from will Kudankulam ensure smooth power According to the agreement, Karnataka is entitled to 442 MW in a phased manner. The 2014 agreement said that power from Kudankulam plant would be available at Rs. 3.50 a unit, however, the same may vary said the minister. The Kudankulam power plant that reached its maximum capacity of 1,000 MW on Saturday had reached criticality in July 2016. Apart from Karnataka, Telangana would receive 50 MW and Kerala would receive 133 MW of electricity. Tamil Nadu is expected to get a minimum of 462.50 MW from the second unit.

#### TTPS suffers technical problem

The Hindu: January 27, 2017

Three power generating units of the Thoothukudi Thermal Power Station (TTPS) suffered a technical problem on Wednesday night.

Production in first, fourth and fifth units came to a halt at 10.37 p.m. following a burst in the transformer in the switch yard inside the plant, sources told The Hindu on Thursday. As a result, feedersof these units tripped. The fifth unit resumed production at 8.30 a.m. on Thursday. A technical team lit up the third unit, which was kept on standby, in the morning and production resumed, sources said. Only the third unit with its production capacity of 210 MW and the fifth unit with the same capacity were operational now.

Currently, there is no growing demand for electricity as cold weather is prevailing in several parts of the State.

The other three units with 210 MW capacity each were kept on standby, sources said.

### Rs 17k crore project to improve quality of power

The Times of India: January 20, 2017

Quality of power for domestic as well as other consumers in Chennai and other districts is likely to get better in the coming months as 136 sub-stations are being constructed or upgraded across Tamil Nadu.

In Greater Chennai alone, 10 sub-stations are either being constructed or upgraded and all of these will be in the form of gas insulated switchgear (GIS). Tangedco is spending nearly Rs 17,277 crore to set up the sub-stations, which will also help the company reduce transmission losses and increase power supplies in areas with reduced losses as per the Ujiwal Discom Assurance Scheme (Uday).

It is only in Chennai city and nearby areas the sub-stations will be GIS. "The GIS-based design reduces the substation's footprint by as much as 70%, so it can be installed in small space. This enables it to be installed indoors, in busy urban areas and in harsh environments. This is a key criterion in the crowded central location in Chennai," said a senior Tamil Nadu Transmission Corporation (Transco)



The GIS substation needs low maintenance since the active parts are protected from the deterioration from exposure to atmospheric air, moisture, contamination, etc. As a result, GIS is more reliable and requires less maintenance. The substation is designed to blend in with the surroundings, and the easy installation and quick turnaround time will help to minimise inconvenience to commuters and neighbouring areas during construction, he said.

We are setting up two sub-stations of 765kV capacity in Ariyalur and in North Chennai. The cost these two sub-stations alone will be Rs 4,640 crore out of which North Chennai sub-station will be in the form of GIS," the official said.

"We are facing low voltage problems during evening and early morning. Many of ourelectricity appliances are facing problems due to low voltage and we only hope with a new sub-station the problem will be solved," said M Malani, a resident of Mambalam where a GIS substation is being set up.

"Sub-stations being set at Guindy will help many industries within Guindy Industrial Estate as well as domestic consumers in Tiruverkadu," said the official. A separate GIS sub-station is being set up for Chennai MetroRail at a cost of Rs 170 crore. Another GIS substation with a capacity of 110kV is being set up within TNEB headwquaters on Anna Salai.

The reduction in losses and transmission losses from 13.5% to 3.7% will bring additional revenue of around Rs. 1,601 crores to Tangedco as per the Uday scheme.

### Neyveli Lignite Corp to increase power generation by 2,640 Megawatt Times of India: January 27, 2017

With the government allotting 20.5 metric tonne of coal per annum from Talabira mine blocks in Odisha, NLC has taken up a plan of 4,000MW capacity addition in coal-based power generation in two phases

Neyveli Lignite Corporation (NLC) India Limited has proposed to enhance power generation at its Neyveli complex by 2,640MW, said chairman and managing director Sarat Kumar Acharya.

Addressing the Republic Day celebrations, Acharya said the company's project to increase lignite-based powergeneration by 1,320MW (two units of 660MW) has reached the advanced stages of completion. He said the company has also proposed to add another 1,320MW (two units of 660MW) in the second phase at Neyveli.

He said the company has awarded contracts for enhancing coal-based power generation by another 1,980MW through its joint venture Neyveli Uttar Pradesh Power Limited (NUPPL) at Kanpur in Uttar Pradesh and for enhancing lignite-based power generation by another 500MW through Barsingsar expansion and Bithnok green field project in Rajasthan.

"With the government allotting 20.5 metric tonne of coal per annum from Talabira mine blocks in Odisha, we have taken up a plan of 4,000MW capacity addition in coal-based power generation in two phases," he said.

On renewable energy, he said the company has launched construction work for a 130MW solar power plant at the Neyveli complex. "We are also in the process of setting up solar installations to the tune of 500MW in Tamil Nadu and 250MW in Odisha," he said.

He said the company has proposed to set up solar installations in Uttar Pradesh, Madhya Pradesh and Maharashtra to generate power to the tune of 1,000MW each. He said the company has proposed to set up a 200MW wind power generating unit in Tamil Nadu. Acharya announced that

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the post-retirement medical assistance for the retired employees of the company has been enhanced to Rs 17,000 per annum in addition to insurance coverage extended for hospitalisation. He also announced that the company has proposed to establish a retiring home at Neyveli township for its employees.

Founder of Art of Living foundation, Sri Sri Ravi Shankar, while complimenting the company for adopting green initiatives, outlined the significance of yoga, meditation, physical exercises, games and sports in maintaining inner and physical strength.

#### Green certificate sales shoot up 245% to 15.68 lakh in Jan

The Economic Times: January 27, 2017

Sales of renewable energy certificates (RECs) jumped about 245 per cent to 15.68 lakh this January, from 4.54 lakh in December last year.

Power distribution companies as well as open access and captive consumers are under obligation to buy RECs from renewable energy producers under renewable purchase obligations (RPOs) as mandated by central and state regulatory commissions.

RECs are aimed at providing an easier avenue for various entities, including power distribution companies, to meet their green energy obligations.

Two power exchanges -- Indian Energy Exchange (IEX) and Power Exchange India Ltd (PXIL) -- approved by the Central Electricity Regulatory Commission hold auction of RECs last Wednesday of every month.

As per available data, the sale volume of RECs at the two exchanges in January was 15,68,192 as against 4,54,038 in December 2016.

As many as 12,87,814 RECs were sold at IEX in monthly auction on January 25. Similarly 2,80,378 RECs were sold at PXIL last Wednesday.

"With trade of 12.48 lakh RECs, the market has set an all-time high predominantly on purchase by discoms followed by open access and captive consumers," IEX has said in a statement.

According to the statement, so far this fiscal (April-January), IEX has traded about 31 lakh RECs. The REC volume trade saw an increase of over 412 per cent over 2.51 lakh in the previous month of the same fiscal.

The total cleared volume at PXIL was 2,80,378 RECs in January compared with 2,02,717 RECs in December 2016.

In a statement, PXIL has said that before January 25, more than 1.92 crore RECs were available in the market for trade, but the clearance ratio was low as large obligated entities like distribution utilities did not participate in today's monthly auction.

The traded volume and clearance ratio is expected to increase further in the remaining two monthly sessions of the fiscal year when large obligated entities purchase RECs to meet their RPO target for the year, it said.

One REC is equivalent to 1 MWh of electricity generated from renewable sources.

Under the REC mechanism, an entity can generate power through renewable resources in any part of the country. The generator receives the cost equivalent of electricity produced from any source while the environment attribute is sold through the exchanges at market-determined

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price.

## 1.28 million Renewable Energy Certificates traded in January, says IEX The Economic Times: January 26, 2017

Power distribution companies as well as open access and captive consumers are under obligation to buy RECs from renewable energy producers under RPO mandated by central/state regulatory commissions.

Power exchangeIEX today said that a total of 12.88 lakh renewable energycertificates (RECs) were traded in January.

"A total of 12.88 lakh RECs were traded in the REC trading session held on January 25, 2017 at IEX," it said in a statement.

Power distribution companies as well as open access and captive consumers are under obligation to buy RECs from renewable energy producers under RPO mandated by central/state regulatory commissions.

RECs are aimed at providing an easier avenue for various entities, including power distribution companies, to meet their green energy obligations.

Two power exchanges -- Indian Energy Exchange (IEX) and Power Exchange India Limited (PXIL), approved by the Central Electricity Regulatory Commission -- hold auction of RECs on the last Wednesday of every month.

"With trade of 12.48 lakh RECs, the market has set an all-time high record predominantly on purchase by discoms followed by Open Access Consumers and Captive Consumers," the statement said.

Since the beginning of this fiscal (April-January), IEX has traded about 31 lakh RECs. REC volume trade saw an increase of over 412 per cent over 2.51 lakh RECs traded in the previous month of the same fiscal.

A total of 1,399 participants traded at IEX with 870 participants in non-solar segment and 529 participants in the solar segment.

Overall, a total of 3,418 participants are registered in the REC segment at IEX. Of this, 864 are Eligible Entities (RE Generators) 2,535 are Obligated Entities (discoms, Open Access Consumers & Captive Generators) and 19 are registered as Voluntary Entities.

IEX is country's premier power trading platform.

### India ranks sixth on eight great powers in 2017: American magazine The Business Standard : January 26, 2017

The list is topped by the US, whereas China and Japan are at tie for being

India is ranked at the sixth spot, behind China and Japan, in a list of eight great powers for the year 2017 by a leading American foreign policy magazine which is topped by the US.

The list is topped by the US, whereas China and Japan are at tie for being on the second spot. Russia (fourth) and Germany (fifth) are the other two countries ahead of India. Iran is ranked seventh and Israel is on the eighth spot.



"Like Japan, India is often overlooked in lists of the world's great powers, but it occupies a rare and enviable position on the world stage," The American Interest magazine said in its latest annual report of eight great powers.

India is the world's largest democracy, home to the second-largest English-speaking population in the world and boasting a diversified and rapidly growing economy, it said.

On the geopolitical front, India has many suitors: China, Japan and the United States are all seeking to incorporate India into their preferred Asian security architecture, while the EU and Russia court New Delhi for lucrative trade and defence agreements, it noted.

"Under the leadership of Prime Minister Narendra Modi, India has deftly steered its way among these competing powers while seeking to unleash its potential with modernising economic reforms," it said.

According to the magazine, despite internal problems in the aftermath of demonetisation, and the Pakistan scare, India found its footing elsewhere in 2016.

"Long hesitant to pick sides, New Delhi took several clear steps this year to deter a rising and aggressive China, announcing that it would fast-track its defence infrastructure projects in the Indian Ocean, amid fears that China was trying to encircle India with a 'string of pearls'," it said.

"Likewise, Modi explored new naval cooperation with both the US and Japan, and signed a host of defence deals with Russia, France and Israel to modernise the Indian military," it observed.

"From the Middle East and East Africa to Southeast Asia, India is making its presence felt in both economics and security policy in ways that traditional great powers like Britain and France only wish they could match," The American interest said.

### Power discom reform: Centre to float mega tender for smart meters Business Standard: January 20, 2017

With 21 states now agreeing to go along with the Ujjwal Discoms Assurance Yojana (UDAY), the scheme to rescue the finances of electricity distribution companies (discoms), the Union ministry of power will do a mega tender for procuring 'smart meters' for these states.

It is in discussion with the states and the industry on how to go about this. Sources said under the draft service model, the winning company would develop, own and operate the area with smart last-mile power distribution & management infrastructure.

"To reduce the cost, the government will issue bulk tenders. The contractor would bear the cost and the state would repay in the form of equated monthly instalments. To incentivise the private contractor, the government would follow a leasing finance model and the rate of interest would be included in the cost," said an official, requesting anonymity.

Major domestic and global companies are likely to participate, the government thinks. A meeting to finalise the tender would take place next month, after the Union Budget presentation, said an official.

Piyush Goyal, the minister, has been vocal on the need to install smart meters at household levels, to track energy usage and reduce power wastage. "We have asked the meter manufacturers to design a multi-tasking smart meter to display power consumption at home in real-time, giving details of usage of every appliance and point using electricity," he'd said earlier this month.



As there is no package or funding under the UDAY programme, the Union government will be providing no funds for the meters. The UDAY reform plan, apart from clearing the books of financially stressed discoms, also emphasises on operational efficiency and reduction in transmission and commercial losses of each state, to 15 per cent from the current level by 2018-19. It also aims to improve 'last-mile' transmission and distribution, reducing the difference between average revenue realisation and the average cost of procurement to zero by 2018-19. Also, the new rate policy mandates use of smart meters above 200 units of consumption.

The state-owned discoms which sign on for UDAY would have their future borrowing linked to efficiency parameters.

Earlier, a mega tender to mass-procure electrical equipment for states had failed due to lack of interest from the latter. It was shelved in July last year. State governments' resistance to follow a uniform norm suggested by the Centre forced the power ministry to withdraw. Under the scheme, after the selection of vendors and price discovery, the fund was to be released to states to purchase the equipment. The states have asked that the budgetary allocation be made to them for procuring.

This time, however, the Centre is confident that as the financing is by the contractor and payment by the states, there would be no argument on the over-arching role of the Centre, said officials.



Please see the website at www.tecaonline.in for previous issues of TECA News letter