

# **Power Sector in Andhra Pradesh and Telangana during February 2015**

## **Policy**

### **AP approves new solar, wind policy**

The Government of Andhra Pradesh on 2<sup>nd</sup> February has approved the solar and wind policy to encourage the growth of the renewable energy sector. Under this policy NREDCAP (New and Renewable Energy Development Corporation of Andhra Pradesh) will serve as the nodal agency and single-point interface for setting up wind and solar power projects. The policy has set a target of generation of 9,000 MW from renewable energy by 2019. Out of this, 5,000 MW will be from solar and the remaining from wind sector.

Under the new wind energy policy land will be allotted to the developers on 25 year lease basis. The new land policy for the sector allows developers to take over land for the project immediately. Earlier, this used to delay projects for a long time. The power purchase agreements with utilities will be for a period of 25 years. Wind power projects will be given deemed industry status to, making them eligible for industrial incentives. This would help energy producers to gain advantage of the industrial policy.

The wind power plants will be exempted from obtaining NOC/consent from pollution control board. They also will be exempted from paying electricity duty in case of sale of power to APDISCOMs. There will be no transmission and distribution charges for wheeling of power for use within the state.

The Government of Andhra Pradesh has allotted a 208-acre site in Anantapur district to NREDCAP and Enercon for setting up a 45 MW wind power project. The allotment was made on lease for 25 years. This allotment is said to be part of the State's policy to encourage renewable energy sources such as wind and solar power.

The government had last year accorded approvals for three mega solar projects with a total capacity of 2,500 MW in Anantapur, Kurnool and Kadapa districts, where big companies such as NTPC have agreed to work.

According to an estimate wind power potential in the state is around 14,497 MW, with the maximum being from the districts of Anantapur, Kadapa, Kurnool, Chittoor and Nellore. As of now AP has 127 MW of solar power units and 929 MW of wind energy farms.

### **World Bank rues ineffective power regulatory bodies**

The World Bank released a study report titled "More Power to India: The Challenge of Distribution". The study pointed out that Electricity regulatory commissions in the states, including Andhra Pradesh, are not effective. According to it the present regulatory

environment was not sufficiently pushing the power utilities to improve performance. Lack of accountability, limited autonomy and constrained technical capacity have restricted the ability of the State Electricity Regulatory Commissions (SERC) to create an independent, transparent and unbiased framework for the sector that balances consumer, investor or utility interests.

The World Bank study expressed concern over increasing distribution losses in Andhra Pradesh. According to it while unbundling of the utility companies has progressed quite well on paper, actual separation and functional independence of the entities is considerably less than it appears.

The power distribution sector in earlier undivided AP made losses since 2012-13, despite the state having taken initiatives like improved metering, regular energy audits, dedicated industrial feeders, regular increase in tariffs and despite it being among the states with lowest technical and commercial losses (AT&C) in the country.

The report points out several reasons that have constrained the power sector in the state from growing, including the cost of power purchase which rose sharply for distribution companies from Rs 2.81 per unit in 2009-2010 to Rs 3.39 per unit in 2011-12 and to Rs 4.25 per unit in 2012-13. The volume of power purchased from short term sources rose from 860 million units (MU) in 2009-10 to 10,094 MU in 2012-13 – a 14 per cent rise.

## **Generation**

### **Gamesa, Greenko sign up for 300 MW wind farms**

Wind power plant manufacturing company Gamesa has entered in to an agreement with Greenko, a wind power developer, for 300-MW additional wind power capacity generation.

In the phase two of implementation of this agreement (140 MW), Gamesa will supply 70 of its G97-2.0MW–T-104 turbines for sites in Karnataka and Andhra Pradesh. This project is expected to be commissioned by September 2015.

### **NLC and APTTRANSCO sign amended PPA**

The Neyveli Lignite Corporation (NLC) has signed an amended power purchase agreement with APDISCOMs for supply of an additional 117 MW of power to the state power utilities from March this year. At present APDISCOMs have a share of 123.73 MW of supply from the power generated from the NLC units.

### **Mytrah Energy secures Rs. 853-crore loan for 150 MW wind projects**

Wind energy developer Mytrah Energy Limited has signed a Rs. 852.78 crore (\$137.50 million) long-term loan agreement with an Indian financial institution. The loan will be used as long-term project finance debt in developing 150 MW of wind power capacity and expected to be on stream in the next 12 months. The company had recently announced it

secured the rights to build a 220 MW project from the Andhra Pradesh Government. The memorandum of understanding (MoU) for the project in Andhra Pradesh was signed at the RE-INVEST conference.

### **Telangana to add 1,000 MW of solar capacity**

The Telangana government is exploring addition of 1,000 MW of solar power generation capacity within the next 18 months. Towards this the State might invite another round of expression of interest for 500 MW capacity. The State government is planning to partly meet Hyderabad's requirement of about 2,000 MW through solar roof top installations.

### **Andhra Pradesh chalks out plans to meet power demand**

The Andhra Pradesh Transmission Corporation (AP Transco) is anticipating a 20 per cent surge in demand in March as compared to last year and is taking steps to ensure that the necessary supplies are available. AP Transco has entered into a short term open access agreement with inter-state power exchanges to procure 864 MW till May 2015. Out of this AP will get 46.11 per cent as it has to share the power with Telangana. AP Transco has also tied up with inter-state power exchanges for another 750 MW of power for February, March, April and May this year exclusively for AP. Besides this, AP has tied up with Thermal Tech and KSK Energy for procuring about 900 MW. Out of this AP will get 46.11 per cent after giving Telangana its share. Power from APGENCO's Krishnapatnam thermal plant's first unit was not included in the list of power projects from where AP would get regular power supply as coal linkage for this is not completed. APTRANSCO started the trial run of the second unit of Krishnapatnam plant and is at present operating the plant at a capacity of 250 MW against the total 800 MW it can generate. It has been planned to increase the same to 450 MW in March and 740 MW in April and May. AP may also get 300 MW of power from NTPC's Jhajjar power plant in Haryana for the months of March and April. Also, gas-based power companies have agreed to take up power generation using naphtha as fuel and it is estimated that more than 300 MW of naphtha-generated power will be available for both AP and Telangana governments till May 2015.

### **Coal supply shortfall hits Andhra Pradesh's power plan**

Coal based thermal power stations in AP are reported to be facing coal shortage. The coal supplies from Mahanadi Coal Fields in Odisha dropped during the last few days. Mahanadi is currently supplying 58 per cent of what was agreed upon and after repeated requests from APGENCO on 18<sup>th</sup> February has agreed to increase it to 70 per cent of the quota. APGENCO had coal stocks to last for another 10 days. Due to coal shortage, the Krishnapatnam thermal station that was commissioned a few days ago had to be closed down. This has resulted in a loss of 800 mw of thermal power every day. Due to the same reasons, the other thermal stations too are generating below their capacity. They include Vijayawada thermal station (1,268 MW as against 1,050 MW capacity) and Rayalaseema thermal station (712 MW as against 1,050 MW capacity).

## **No free power for AP farmers during daytime**

While participating in the State Advisory Committee meeting of APERC State Secretary to the Energy Department Ajay Jain said that in view of increasing power demand in summer the AP government has stopped power supply to agriculture in the ongoing rabi season during day time and that seven-hour free power supply could be done only after 7 pm every day. He said that since power consumption increased suddenly, it would not be possible to supply power to 14.54 lakh pump sets during day time. He also said that farmers would be encouraged to go for solar power as an alternative in the daytime to avoid power shortage.

## **AP to evolve hybrid solar, wind power development model**

Andhra Pradesh is exploring for a new approach that seeks to create hybrid solar and wind farms, which will become more cost effective. With the State government looking for a major contribution from renewable energy, encouraging both solar and wind power at one site should attract more developers.

## **Andhra Pradesh inks MoUs for 4,000 MW wind power**

The Andhra Pradesh government on 16<sup>th</sup> February signed MOUs for generation of 4,000 MW wind power and 200 MW hybrid power on the sidelines of the Renewable Energy Global Investors Meet and Expo (Re-invest). The state government promised to clear all proposals in 21 days.

## **Gamesa, others allotted land for wind farms in AP**

Under the new wind energy policy while Gamesa has proposed setting up of 15.5 MW capacity units, RSR Power proposed 15.5 MW, Naveen Green Energy 19.5 MW and Ramagiri Rayala Wind at 10 MW. There are many others who have lined up to take up projects including some of the firms such as Greenko and Mytrah. Some of these companies were allotted land on lease by NREDCAP. Given the wind power potential, the State plans to attract companies enabling them to expand the installed capacity of wind farms to 4,000 MW from the current 900 MW within five years.

## **AP moots 50% hike in green energy generation**

In an effort to boost generation of eco-friendly, renewable power in Andhra Pradesh, the state government has planned to increase the installed capacity of non-conventional energy generation sources to 1635MW during fiscal 2015-16 from 1085MW in the current fiscal, a jump of 550MW. This comes out from APDISCOMs' annual revenue requirement (ARR) filings for FY 2015-16 before the APERC.

According to the ARR filings, the 1635MW projected green power generation for the next fiscal include 114MW through biomass projects, 60MW through bagasse cogeneration projects, 1264MW through wind power projects, 31MW from mini-hydel power projects, 14MW from industrial waste-based power projects, 6.14MW from municipal waste-based power projects, 4.08MW from NCL Energy Limited and 142 MW of solar power projects.

### **Telangana steps up efforts to bridge power shortage**

At a meeting to review the power sector in the state held on 4<sup>th</sup> February the Telangana Chief Minister said that the government has worked out medium- and long-term plans to ensure it becomes a power surplus State within three years. By 2018 the State would achieve a generation capacity of 21,350 MW in the thermal sector and with hydel power; the total installed capacity will be around 24,000 MW. TSGENCO will be allocated Rs. 1,000 crore in the budget to be announced for the next financial year (2015-16).

As against the current requirement of 6,000 MW, the available capacity is 4,300 MW and the rest is being bridged with supplies from other sources, including Central generating stations. During the rabi crop season and the summer months, the State is likely to face demand-supply gap and this would be potentially met with additional purchases. By next year, the State will be able to procure about 1,000 MW from Chhattisgarh. The power plant of Singareni Collieries is likely to contribute around 1,000 MW.

### **Tata group hints at 100 MW solar plant in Telangana**

The Tata group has shown an interest in setting up a 100 MW solar power plant in Telangana.

### **Telangana asks Centre to allot 13 mt coal**

Chief Minister of Telangana has written a letter to Prime Minister, requesting him to allot additional coal to the state to cope with severe power crisis in the ensuing summer. The Telangana Government has asked the Centre to allocate 13 million tonnes of power for 2015-16. As the power-starved State adds thermal power capacity in the next five years, the requirement would go up to 57 MTPA. The Chief Minister also explained the progress of various projects, including Kakatiya Phase II and Singareni Collieries.

In addition, the State government has decided to add 4,200 MW of thermal capacity in the next four years. These projects would require 21 MTPA of coal. All these projects are at an advanced stage of financial closure. Besides, NTPC is supposed to add 4,000 MW of additional capacity under the State Re-organisation act after establishing necessary coal linkages.

### **Telangana seeks 500 MW surplus power**

The Chief Minister of Telangana requested the Centre to allocate 500 MW of surplus power from the Eastern Grid to help the State tide over the severe shortage of power in the next few months.

## **Singareni Collieries to set up 600 MW plant in Adilabad**

Singareni Collieries Company Ltd (SCCL) has decided to set up a 600 MW coal-fired thermal power plant (Stage II) at Jaipur, in Adilabad district of Telangana. The expansion project entails a capital cost of Rs. 3,570 crore. It is planned to build the project with 30 per cent equity by SCCL and 70 per cent debt. The required 220 acres of land and 0.7 tmc of water is available. The SCCL also decided to enhance production from 1.50 mt a year to 2.5 mt a year from the existing Kakatiya Opencast mines, which are to supply raw material the proposed power plant. Production at the Khairagura Opencast fields will also be enhanced from 2.5 mt a year to 3.75 mt a year.

## **Transmission**

### **Fuji Electric plans to set up smart grid in Vijayawada**

According to a press release by state government of Andhra Pradesh Japanese company Fuji Electric is mulling setting up a smart grid for electricity supply in the state on pilot basis.

The smart grid will be set up in Vijayawada on pilot basis. Fuji Electric conducted a feasibility study for a smart grid project and it will come out with a report soon. The smart grid monitors consumption of energy and forecasts the demand for the next 24 hours to make energy management efficient. The smart grid allows one to share energy with other grids if the demand is less from one grid and more from the others.

## **Distribution**

### **Power tariff hike in Andhra Pradesh**

APDISCOMs Andhra Pradesh Eastern Power Distribution Corp. Ltd and Andhra Pradesh Southern Power Distribution Corp. Ltd) filed tariff proposals before the Andhra Pradesh Electricity Regulatory Commission for the FY 2015-16. They proposed tariff hike of about 6% across all categories in order to meet rising costs and revenue deficit. The proposed hike will not affect domestic users consuming less than 100 units per month. According to the DISCOMs the average purchase cost of a unit rose by 6% from Rs.4.20 per unit to Rs.4.55 unit in last two years due to the increase in gas prices and high cost short term purchases to meet demand-supply gap. The average cost to serve increased 15.5% to Rs.5.99/unit in last two years. The DISCOMs have accumulated revenue deficit of Rs.2,004 crore in last two financial years or 0.40 per unit. The total revenue deficit for 2014-15 is expected to be Rs.1271.43 crore and projected to increase to Rs.2,345.8 crore in 2015-16. Andhra Pradesh's energy requirement is estimated to be 58,191 million units in 2015-16.

The DISCOMs will require annual revenue of Rs. 30,300 crore to supply this power. The revenue expected from utilities was Rs. 22,592 crore leaving a gap of Rs. 7,726 crore. The gap would be bridged by reducing transmission and distribution losses, improving efficiency and plant load factor, curbing theft and through subsidy.

### **APERC holds public hearings on tariff hike**

The Andhra Pradesh Electricity Regulatory Commission (APERC) received 65 suggestions/objections from across 13 districts on the tariff proposals made by APDISCOMs. The Commission heard the public on February 23 and 24 in Visakhapatnam, on February 25 in Kakinada, on February 26 in Guntur, on February 27 and 28 in Tirupati, and in Hyderabad on March 4.

At the public hearing held in Visakhapatnam there were suggestions that the state should sell surplus electricity to other states at a higher rate and supply power to local users at a lower price. It was also observed that state government had been exaggerating the power crisis after bifurcation and pointed out that the power tariff hike would cause an additional burden of ₹1,200 crore on the consumers. Participants also asked for a special hearing on the power purchase agreements between the power generation and distribution companies as the state government was hiking the power tariff to benefit the private power generation companies. Some alleged that the distribution companies had proposed the tariff hike for enhancement of salaries to their employees as part of the pay revision commission (PRC) and consequently consumers would be bearing the brunt.

### **Telangana consumers to pay more for power**

Two DISCOMs of Telangana - Southern and Northern Power Distribution Companies – proposed to hike electricity tariff by 5.75%. Domestic consumers utilizing less than 100 units a month and agriculture consumers are exempted from this hike.

According to the proposals the two DISCOMs require Rs 26,473 crore for 2015-16. From the proposed tariff hike the two DISCOMs hope to generate revenue of Rs 1,089 crore in one year.

According to the DISCOMs the tariff hike is proposed due to increase in network cost, power purchase cost and interest cost for financial restructuring plan, revenue deficit, and absence of tariff hike in the last one year. The average Cost to Serve (CoS) in 2013-14 was Rs 5.46 per unit. It has reached to Rs 5.98 per unit in 2015-16.

The TSERC has decided to conduct a public hearing on March 12 in Warangal and March 13 and 14 in Hyderabad.

