# Power Sector in Andhra Pradesh during December 2010

### POLICY

At a meeting held on 22<sup>nd</sup> December the Chief Minister of Andhra Pradesh stated that the free power supply to farmer would be continued for the next four years.

In the meantime the World Bank has taken up a study to examine subsidized power supply to agriculture in the state. A seminar was held in New Delhi on 22<sup>nd</sup> December with the participation of officials from the Planning Commission and the state government. As a follow up, a workshop was scheduled to take place in Hyderabad on 28<sup>th</sup> December. The issues to be examined are: how to target subsidies to farmers and how to incentivise farmers to reduce power consumption. This involves installation of meters at the farmers end. This study was said to be taken up with the purpose of sensitizing farmers about the need to use water and energy judiciously and conserve water for future generations.

### POWER GENERATION

On 4<sup>th</sup> December the relay hunger strike launched by the people of Sompeta mandal in Srikakulam district under the leadership of Paryavarana Parirakshana Samithi (PPS) against the proposed thermal power plant to be set up by NCC completed 365 days. To mark this occasion a public meeting was held in Sompeta. The meeting was addressed by Swamy Agnivesh, Sandhya of POW and V.S. Krishna of Human Rights Forum. To show solidarity to this movement voluntary bandh was observed in Sompeta, Kaviti and Kanchili mandals in this district.

The new unit of Rayalaseema Thermal Power Project (RTPP) with a capacity of 210 MW was synchronised with the state grid, which was constructed with a total cost of Rs. 1,330 crore. Total capacity of RTPP now stands at 1,050 MW.

Srinivasam Energy Limited proposed to set up two power plants in the state with a combined capacity of 1,620 MW. One of the plants would be coal based thermal plant involving a capacity of 1,320 MW at Pentakota village in Tuni mandal in East Godavary district with an investment of Rs. 6,800 crore. Another plant would be gas based 300 MW unit to be located at Antharam village in Bhongiri mandal in Nalgonda district with an investment of Rs. 1,000 crore. These plants would be operated as merchant plants.

Union ministry of power recommended allotment of 9.72 MCMD of gas to 2100 MW gas based power plant under APGENCO to be located in Karimnagar district. The union ministry of petroleum and natural gas also cleared allocation of this gas. The final decision on this will be taken by the Empowered Group of Ministers (EGOM) headed by the Finance Minister Mr. Pranab Mukherjee. Apart from the state government of Andhra Pradesh Presidents of Telangana Rastra Samithi and Telugu Desam also had written to the central government in support of full gas allocation to the 2100 MW plant at Karimnagar.

The Hinduja Group has come out with new proposals with regard to its proposed 1000 MW coal based thermal plant at Visakhapatnam. According to this proposal 25% of the capacity would be sold to the DISCOMs at the rate equivalent to that of NTPC's Visakhapatnam Simhadri Phase II plant (which is said to be about Rs. 2 per unit) and the remaining capacity at the rate to be fixed in the case I bidding which is in progress. This might be at the rate of Rs. 5 per unit. The state government seems to be inclined to accept this proposal. Earlier the state government wanted the total capacity to be sold at Simhadri Phase II rate. In the meantime the State Waqf Tribunal which was set up to examine disputes related to Waqf properties had set aside the sale of land (1122 acres) by the Waqf Board to the Hinduja group to set up power plant at Visakhapatnam in response to a petition filed by Mr. Akbaruddin Owaisi MIM floor leader in AP Legislative Assembly.

Nagarjuna Construction Company Limited (NCCL) has taken over Nelcast Energy Corporation Limited, which has obtained approvals for setting up 2X660 MW super critical thermal plant in Nellore district. The Ministry of Environment and Forests issued a notice to NCCL over it s plans to change cold linkage for this power plant in response to a complaint lodged by Dr. E.A.S. Sarma. According to this notice the company would be punished if it violated the conditions laid down on cold linkage in the environmental clearance issued on 30<sup>th</sup> September 2010.

Mr. Anil Ambani Chairman of Reliance – ADAG / Reliance Power which is setting up 4000 MW UMPP at Krishnapatnam in the state met the Chief Minister of AP on 29<sup>th</sup> December. In the press it was described as a courtesy call. Reliance Power proposes to shift the ash pond to another place away from the present location. Also, it appears to be attempting for domestic coal linkage though the plant is supposed to run on imported coal which contains less ash compared to the domestic ash. Both issues have environmental implications and require fresh environmental impact assessment (EIA). These issues might have figured in their discussions.

Four DISCOMs in the state have entered into power purchase agreements (PPA) with APGENCO and NTPC that involve a total capacity addition of 2,410 MW. NTPC is planning to set up a 4000 MW plant in Visakhapatnam district. In this AP share will be 2000 MW. The APGENCO units include Jurala Hydro Electric Project (240 MW), Pulichintala Hydro Electric Project (120 MW) and Nagarjunasagar Tail Pond Hydro Electric Project (50 MW). These PPAs are to be approved by the APERC.

GMR Energy entered in to a long-term service agreement with U.S.-based GE Energy for the expansion of the Vemagiri power plant in Andhra Pradesh. GE will provide gas turbine-generators to the GMR's 768 MW expansion plant at Vemagiri. The plant will be completed by 2012. Under a 15-year contractual service agreement (CSA), GE will supply parts, services and repairs for the gas turbines. Under Jawaharlal Nehru National Solar Mission Rithwik Projects Limited won the bid to design, build and operate 5 MW solar power plant in Anantapur district. This plant is expected to be commissioned within 12 months. Once commissioned this plant is expected to generate 8 million units of power in a year leading to reduction of 7,000 tonnes of carbon emission annually.

According to a NEDCAP report several private developers have shown keen interest to set up solar power plants totaling 1,184 MW capacity in Andhra Pradesh. Out of these 969 MW will be from solar photovoltaic (SPV) power and 215 MW from concentrating solar thermal power (CSP). These proposals are being wetted. Until now three SPV-based projects of 5 MW each and one CSP-based project of 50 MW capacity have been selected. Besides this, 11 proposals with a combined capacity of 10.5 MW under the Rooftop Photovoltaic and Small Solar Power Generation Programme (RPSSGP) have been selected.

Sl. No.	Name of the Developer	Fuel	Capacity (MW)	Location
1	Alfa Infraprop Pvt Ltd	Coal	2640	Komarada village, Parvathipuram mandal, Vizianagaram district
2	East Coast Energy Pvt Ltd	Coal	2640	Kakarlapalli village, Santhabommali mandal, Srikakulam district
3	Simhapuri Energy Pvt Ltd	Coal	540	Chillakur mandal, Nellore district
4	NCC Power Projects Ltd	Coal	2640	Sompeta mandal, Srikakulam district
5	Meenakshi Energy Pvt Ltd	Coal	600	Krishnapatnam, Nellore district
6	Krishnapatnam Power Corporation Ltd	Coal	1320	Krishnapatnam, Nellore district
7	Kineta Power Pvt Ltd	Coal	1980	Krishnapatnam, Nellore district
8	Thermal Powertech Pvt Ltd	Coal	1980	Krishnapatnam, Nellore district
9	UMPP, Krishnapatnam	Coal	4000	Krishnapatnam, Nellore district
10	APGENCO	Coal	1600	Krishnapatnam, Nellore district
11	UMPP at Kothapeta	Coal	4000	Kothapeta, Prakasam district
12	APGENCO	Coal	4000	Vodarevu, Prakasam district
13	Meghavaram	Coal	500	Srikakulam district
14	GMR Energy Ltd	Coal	1320	Kakinada. East Godavary

# **Proposed Power Plants in Andhra Pradesh**

			district
Hinduja Power Project	Coal	1000	Visakhapatnam
Navabharat Energy India	Coal	300	Palvancha, Khammam
Ltd			district
Navabharat Energy India	Coal	300	Palvancha, Khammam
Ltd			district
GMR Barge mounted	Natural	220	Kakinada, East Godavary
-	gas		district
		700	Vijjeswaram, West
	gas		Godavary district
Konaseema gas power –		820	Ravulapalem, East
• •			Godavary district
	-	800	Vemagiri, East Godavary
Shire Energy Eta		000	district
Spectrum Power	-	1200	Uppada, East Godavary
-		1200	district
	-	800	Peddapuram
Gautann 10wei 1 vi Etu		800	reddapuram
KWK (DIV) Dut I td		120	Rajahmundry
KVK(KJI)FVLLU		120	Kajannunun y
Vacavi Dawar Sarviaaa	-	420	Kandaguntur villaga
		420	Kondaguntur village,
Pvi. Liu	gas		Jegurupadu mandal, East
DVD Dawyor Drainata	Natural	20	Godavary district
RVR Power Projects		20	Palakollu, West Godavary district
	-	10	
Pvt Ltd	Gas	40	Krishana district
	Gas	410	Krishana district
Keerthi Industries	Gas	820	Krishana district
Vijayaditya Power	Natural	27	Ramachandrapuram, East
Projects	gas		Godavary district
RVK Energy	Gas	486	East Godavary district
Greenco Godavary Power	Gas	120	East Godavary district
Projects			
NFCL	Gas	55	Kakinada, East Godavary
			district
SBO Steels Ltd.	Coal	90	Chillakur mandal, Nellore
			district
NCS Sugars	Coal	240	
			Ankulapathur village,
	Cour	550	Chillakur mandal, Nellore
			district
Namratha Biili Power	Coal	150	Munipadu village,
Pvt. Ltd	Com	150	Visakhapatnam district
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Lakshmi Tulasi Agro Pvt.	Coal	12	Aswaraopeta, Khammam
	Navabharat Energy India LtdNavabharat Energy India LtdGMR Barge mounted power plantAPGPCLKonaseema gas power – Stage IIGMR Energy LtdSpectrum Power Generation LtdGautami Power Pvt LtdKVK (RJY) Pvt LtdVasavi Power Services Pvt. LtdPvt. LtdRVR Power ProjectsPvt LtdMRK Constructions LtdKeerthi IndustriesVijayaditya Power ProjectsRVK EnergyGreenco Godavary Power ProjectsNFCLSBQ Steels Ltd.NCS Sugars VSF ProjectsNamratha Bijli Power	Navabharat Energy India LtdCoalNavabharat Energy India LtdCoalGMR Barge mounted power plantNatural gasAPGPCLNatural gasKonaseema gas power – Stage IINatural gasGMR Energy LtdNatural gasGeneration LtdgasGautami Power Pvt LtdNatural gasGautami Power Pvt LtdNatural gasVasavi Power Services Pvt. LtdNatural gasRVR Power ProjectsNatural gasEncore Power Projects Pvt LtdGasVijayaditya Power ProjectsGasVijayaditya Power ProjectsGasRVK EnergyGasGreenco Godavary Power ProjectsGasSBQ Steels Ltd.CoalNCS SugarsCoalNamratha Bijli PowerCoal	Navabharat Energy India LtdCoal300LtdNavabharat Energy India LtdCoal300Mavabharat Energy India LtdCoal300GMR Barge mounted power plantNatural gas220power plantgas700APGPCLNatural gas700Stage IIgas800GMR Energy LtdNatural gas800Generation Ltdgas800Gautami Power Pvt LtdNatural gas800Gautami Power Pvt LtdNatural gas1200Generation Ltdgas90Vasavi Power Services Pvt. LtdNatural gas220Pvt. LtdSas420Pvt. LtdGas40Pvt LtdGas410Keerthi IndustriesGas820Vijayaditya Power ProjectsNatural gas27ProjectsGas486Greenco Godavary Power ProjectsGas120NFCLGas55SBQ Steels Ltd.Coal90NCS SugarsCoal240VSF ProjectsCoal350Namratha Bijli PowerCoal150

39	Sri Maa Mahamaya Power Limited	Coal	98	Srirampuram, L Kota mandal, Vizianagaram
40	Krishnaveni Sugars	Bagasse	28	district Kothakota, Mahabubnagar district
41	Suryachakra Thermal Energy (Andhra) Pvt Ltd	Biomass	40	
42	Hema Sri Power Projects	MSW	12.6	Suryapet, Nalgonda district
43	Yuvaraj Power Projects Ltd.	MSW	13	Vemagiri village, East Godavary district
44	Suzlon Infrastructure Services Ltd.	Wind	500	Vajrakoduru, Kadapa district
45	Enercon India Ltd.	Wind	80	Kondameedapally, Anantapur district
46	SLS Power Corporation	Mini Hydel	24	Dummugudem, Khammam district
47	Vikas Power	Coal	540	Krishnapatnam, Nellore district
48	Meenakshi Energy Pvt Ltd, Phase II	Coal	300	Thamminapatnam village, Chillakur mandal, Nellore district
49	Nelcast Energy Corporation Ltd	Coal	1320	Muthukur mandal, Nellore district
50	Navayuga Krishnapatnam Power Corporation	Coal	1320	Chillakur mandal, Nellore district
51	Lanco	Coal	1000	Momidi village, Chillakur mandal, Nellore district
52	Leather Park	Coal	500	Krishnapatnam, Nellore district
53	Mahaveer	Coal	454	Chillakur mandal, Nellore district
54	Dr. Ramakrishna Rao	Coal	100	Chillakur mandal, Nellore district
55	Sivaswamy Construction Pvt Ltd	Coal	1200	Chillakur mandal, Nellore district
56	Mahaveer Energy Pvt Ltd	Coal	500	Chillakur mandal, Nellore district
57	Pradesa Power Pvt Ltd	Coal	2640	Chillakur mandal, Nellore district
58	Ramakrishna Prasad Power Ltd	Coal	420	Chillakur mandal, Nellore district
59	Sowmya Energy Pvt Ltd	Coal	100	Chillakur mandal, Nellore district
60	VSR Power Tech	Coal	530	Chillakur mandal, Nellore district

61	Nuclear Power	Uranium	2000	Kovvada, Srikakulam
	Corporation of India Ltd			district
62	APGENCO	Coal	600	RTPP, Muddanur, Kadapa
				district
63	APGENCO	Coal	600	Kakatiya Power Plant,
				Khammam district
64	APGENCO	Natural	2100	Karimnagar district
		gas		
65	APGENCO	Hydel	240	Jurala
66	APGENCO	Hydel	120	Pulichintala
67	APGENCO	Hydel	50	Nagarjunasagar Tail Pond
68	NTPC	Coal	4000	Pudimadaka village,
			(AP's	Achyuthapuram mandal,
			share	Visakhapatnam district
			2000	
			MW)	
69	Srinivasam Energy	Coal	1320	Pentakota village, Tuni
	Limited			mandal, East Godavary
				district
70	Srinivasam Energy	Natural	300	Anantharam village,
	Limited	gas		Bhongiri mandal, Nalgonda
				district
71	Silk Road Power Projects	Natural	30	Kakinada, East Godavary
		gas		district
	Total		62,339.6	

Source: 1-46 = APCPDCL's Website,

47-60 = Dr. E.A.S. Sarma's e-mail to the Minister of State – Environment and Forests, GoI dated: 27-09-2010,

61-71 = Newspaper reports

### POWER DISTRIBUTION

In a meeting on 1<sup>st</sup> December at Visakhapatnam Director (Operations) of EPDCL claimed that EPDCL achieved lowest T&D losses (8.4%) in the country. According to him EPDCL distributed six lakh CFL bulbs in Visakhapatnam district. It also had taken up a pilot project in East Godavary district to replace agriculture pump sets and pipes to improve their efficiency. In association with Bureau of Energy Efficiency (BEE) EPDCL has also launched energy efficiency improvement programme in ice making units in West Godavary district. NPDCL has launched similar programme in rice milling units in Warangal district.

CPDCL has taken up aerial bunched cabling (AB cabling) on a pilot basis in all the three circles of Hyderabad metro zone over a total stretch of 50 kilometers. This programme was taken up to minimize interruption in areas with heavy greenery. This pilot was

completed in north circle. This was reported to have resulted in eliminating interruptions. In other two circles – south and central – this pilot programme is yet to be completed. This failure was attributed to the disinterest of contractors and political interference. In response to success in the north circle this programme was slated to be extended to another 100 kilometers in this circle.

CPDCL proposes to install prepaid meters in select government offices on a pilot basis. This was contemplated to avoid delayed payments from government departments. According to CPDCL each month delayed payments from the government departments was adding up to nearly Rs. 5 crore. Each prepaid meter installation might cost about Rs. 8000.

CPDCL has taken up strengthening of distribution network to meet load growth with an investment of Rs. 159.8 crore in the coming three months. This network strengthening includes setting up 12 new sub-stations at Hakeempetkunta, Malakpet Gunj, Mayurinagar, IICT, Motimahal, Boduppal, KIMS Hospital, Nagole, Ranga Reddy District Court, Jalpally, Errummanzil Colony, and Hyderabad Public School; augmenting capacities of 23 power transformers at 33/11 KV sub-stations; 18 lines to interlink 33 KV sub-stations, and installation of 778 new transformers. Other measures include introduction of Radio Frequency meters at consumers end and establishment of Trouble Management Call Centre for Hyderabad city region.

Under R-APDRP programme of the Central Government CPDCL is sanctioned a grant of Rs. 134.17 crore under Part – A and Rs. 806.78 crore under Part – B of the scheme. Under Part – A the works to be taken up include GPS survey for customer location identification, establishment of data center at Hyderabad to build online data base of 32 towns, integrated customer care center to cater to the needs of the customers in Hyderabad Urban Agglomeration and system maintenance. Under Part – B the works to be taken up include installation of 64 new 33/11 sub-stations, erection of 200 KM 33 KV overhead lines, laying of 630 KM under ground cable, laying of 55 KM 11 KV aerial bunch cable, erection of 1614 KM new 11 KV lines, re-conduct ring of 200 KM 11 KV line, erection of 150 nos. 2 MVAR Capacitor banks, installation of 3339 distribution transformers, adding 3000 KM LT lines, replacement of 3.8 lakh LT consumer meters with electronic meters and shifting 5.62 lakh LT meters to out side of the houses. Besides this, PFC sanctioned an amount of Rs. 17.13 crore for system strengthening in 6 districts. All these interventions are expected to be implemented by 2013 and by 2015 these are expected to bring down AT&C losses to 11.28% from present 19.06%. Power consumption is assumed to grow at the rate of 14.5% by 2015.

## OTHER ISSUES

With the initiation of reforms in power sector with stress on transparency and efficiency one expected decline in corruption in the operation of TRANSCO/DISCOMs in the state. But not a month passes without nabbing of one or the other official of TRANSCO/DISCOMs by the Anti Corruption Bureau for indulging in corrupt practices and amassing wealth disproportionate to their sources of income. On3rd December D.

Prabhakar, Superintendent Engineer (Operations – Hyderabad central circle) of CPDCL was arrested by the Anti Corruption Bureau for acquiring wealth illegally. Market value of the assets amassed by him would be more than Rs. 10 crore. Similarly on 22<sup>nd</sup> December D. Koteswara Rao, ADE of CPDCL Rajendranagar division was arrested for acquiring wealth illegally. During raids properties worth more than one crore rupees were unearthed. Its market value would have been much higher.

The Andhra Pradesh Electricity Employees Union announced their intention to go on strike to press their demand to fill up of 20,000 vacancies. It stated that the number of employees per 1000 consumers declined from 7.05 in 1993-94 to 2.63 in 2009-10. In the past 10 years no additional posts were sanctioned though the quantum of power handled and number of consumers increased considerably.

AP Genco Employees Union took out a rally on 30<sup>th</sup> December demanding the filling up vacancies in different units of APGENCO numbering more than 1350. These post are lying vacant for more than a decade.

As a part of efforts to take the Consumer Grievance Redressal Forum (CGRF) nearer to the consumers in CPDCL area a decision was taken to hold CGRF sittings every month in important towns. According to the present schedule CGRF would visit the following towns every month – Anantapur ( $3^{rd}$ ), Kurnool ( $5^{th}$ ), Mahabubnagar ( $9^{th}$ ), Vikarabad ( $23^{rd}$ ) and Nalgonda ( $25^{th}$ ). The CGRF would have its regular sittings at Hyderabad.