

Telangana Electricity Engineers' Association

(Regd No. 319/07)

Mint Compound, Hyderabad-04. P&T No. 040-23451099

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Date.....

To
Hon'ble Chief Minister
Telangana State
Secretariat
Hyderabad

Date: 07-07-2014

Respected sir,

**Sub: TEEA-Implementation of 24X7-Power for all (PFA)-in
Telangana state-reg.**

Ref: CEA letter ref CEA/DPD/PFA (24X7)/AP/2014
Dated 01-07-2014

This association requests your highness kind attention to the above CEA letter dated 01-07-2014 where in it is informed that "an exercise has been carried out for calculating additional energy required and implication of tariff for providing **24x7 power supply to all (PFA)** the electrified domestic households of the Combined Andhra Pradesh duly enclosing the exercise done for the above scheme".

Based on the above CEA letter and data furnished by them, your highness may kindly notice that the original proposal of implementation of 24x7-Power for all is for the entire state covering 23 districts in the erstwhile Andhra Pradesh.

Contd.....(2)

:2:

However vide para (2) of the above letter, CEA has requested to prepare a report only of the state of Andhra Pradesh (Post Division) duly furnishing the format.

In continuation to the above a meeting also held on 4th instant with CEA officials along with principal Energy secretary of A.P and Chairman & Managing Director of APTRANSCO at vidyuth Soudha. A draft minutes available with this association is here with enclosed for your kind perusal please.

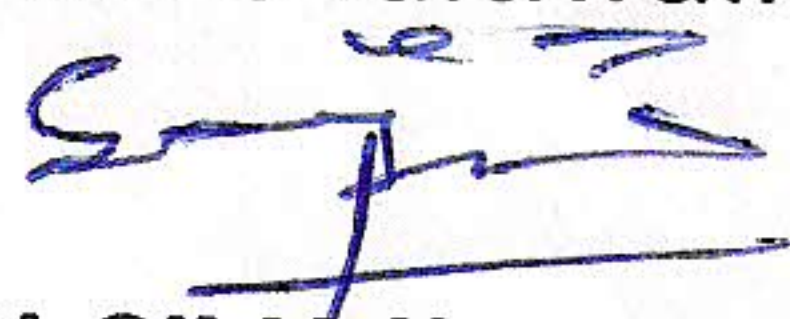
While this association welcome the decision of the CEA for implementation of the captioned scheme in Residuary Andhra Pradesh but there is a need to facilitate the scheme to Telangana state also as originally envisaged and in the interest of better consumer services in the state.

Since there **are lot of advantages and central financial assistance for implementation** of above scheme; it is our submission to the Government to take up the issue with MOP /Govt of India to facilitate the above scheme for the state of Telangana also as originally envisaged by CEA. There is a possibility of Consideration of our request by CEA as the scheme is in the initial stage of proposal.

Thanking you

Encl: CEA letter and draft note/minutes

Yours faithfully



N.SIVAJI

PRESIDENT-TEEA

24X7 Power for All (PFA) for the state of Andhra Pradesh – Meeting
held on 4th July 2014

1. Andhra Pradesh selected for the implementation of the Central Government scheme to provide 24X7 power by providing reliable supply to all the consumers
2. Timeframe for implementation of the 24X7 PFA scheme for Andhra Pradesh to be 3 years. Andhra Pradesh to take proactive steps to reduce the timeframe below 3 years
3. Increase in energy demand from domestic consumers (connected and unconnected) to be projected for the future 3-5 year period for the 24X7 PFA scheme
4. Energy requirement of Andhra Pradesh to be projected for the next 3-5 years considering the increase in demand from new consumer additions, upcoming capital city, PCPIR region etc.
5. Andhra Pradesh to prepare a detailed plan on power procurement on a monthly and yearly basis. Central Government to provide support by expediting the building of transmission capacity required for the power procurement
6. PLF of the existing power plants in Andhra Pradesh to be increased by arranging for additional coal linkage, linkage rationalization, coal swapping etc.
7. PLF of the upcoming power plants in Andhra Pradesh to be maintained at a highest level by ensuring adequate coal linkage
8. Andhra Pradesh to be allocated power from the unallocated share of power plants located in the Southern region like Kudankulam, Vallur

9. Andhra Pradesh to prepare a detailed Long term Transmission requirement plan for enhancing Inter-state and Intra-state transmission capacity. High voltage transmission lines to be built through a competitive bidding route. Central Government would help the state out with Viability Gap Funding (VGF)
10. Andhra Pradesh to prepare a detailed Sub-Transmission, Distribution and Metering scheme listing out details like Investment requirement, State Government support, Central Government support, REC loans required etc.
11. Andhra Pradesh to submit the Detailed Project Report on Feeder Segregation scheme listing out details like Investment requirement, Central Government support etc.
12. Andhra Pradesh to submit a detailed plan for electrification of unconnected consumers through the RGGVY scheme
13. Andhra Pradesh to submit a detailed plan for electrification of scattered households through steps like Decentralized Distributed Generation (DDG), Micro grid etc., with required support from MNRE
14. Andhra Pradesh to focus aggressively on implementation of Energy Conservation measures
15. Andhra Pradesh to tie up power on a long term basis with power producers to reduce the power procurement cost
16. Andhra Pradesh to focus on reduction of Transmission & Distribution losses, increase in metered sales, reduction in Agriculture sales through Energy conservation measures and increase in customer satisfaction

17. Andhra Pradesh to study the requirement of renovation and modernization of power plants and take required steps for the required renovation of the power plants

18. Andhra Pradesh to identify the circles with the lowest losses for the implementation of the 24X7 scheme. Load restriction to circles with the lowest losses to be reduced accordingly

19. Andhra Pradesh with the assistance of Central Government to build Green Energy corridors

20. Andhra Pradesh to submit a quarterly plan on the power sector with the details like **Initiatives taken by State Government, Support required by Central Government, Outcome of the Initiatives** EPIP & 100%

21. Andhra Pradesh to study the Solar enabled Agriculture pump sets model adopted by Rajasthan and do a feasibility analysis for its implementation in Andhra Pradesh

[22. Central Government to help in removing the rail corridor constraints on the Eastern coast to reduce the generation cost of power plants in Andhra Pradesh]



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
वितरण आयोजन एवं विकास प्रभाग
Distribution Planning & Development Division
सेवा भवन, आर के पुरम, नई दिल्ली - 110066
Sewa Bhawan, R.K. Puram,
New Delhi - 110066
वेबसाइट/ Website: www.cea.nic.in



[ISO : 9001:2008]

No. CEA/DPD/ PFA(24x7)/AP/2014

Dated 01.07.2014

Principal Secretary(Energy)
Government of Andhra Pradesh,
Secretariat
Hyderabad 500 001

Fax 040-23455452

Subject : 24x7 -Power For All (PFA) for the state of Andhra Pradesh

Sir,

An exercise has been carried out for calculating additional energy required and implication on tariff for providing 24x7 power supply to all the electrified domestic households of the Combined Andhra Pradesh. The copy of the exercise is enclosed for reference. The requirement of additional energy & implication on tariff for un-electrified households and non domestic sector have also to be carried out subsequently.

To prepare the report for the state of Andhra Pradesh (post division), a format for furnishing the data is enclosed. It is requested that the concerned officers may be directed to furnish the data immediately to the undersigned for carrying out the exercise.

It is also requested that a Nodal Officer in this regard may also be appointed and his contact No. and address may be furnished to this office for further correspondence in the matter

Yours faithfully,

(रविन्द्र कुमार वर्मा)

मुख्य अभियंता

Te.No.011-26102793

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Annual Growth Projections for 2014							
Andhra Pradesh							
S. No.	Particulars	2001	2011	Difference	% Decadel Growth	CAGR	Total H/H by 2014
1	Total Households	16,849,857	21,024,534	4,174,677	25%	2.24%	22,970,923
2	Rural Households	12,676,218	14,246,309	1,570,091	12%	1.17%	14,927,512
3	Urban Households	4,173,639	6,778,225	2,604,586	62%	4.97%	8,229,177
4	Total Electrified Households	0	19,377,222	0			21,194,014
5	Rural Electrified	0	12,782,453	0			0
6	RGVY between 2010-14	0	205,110	0			0
7	Total Rural Electrified	0	13,187,563	0			13,187,563
8	Total Urban Electrified	0	6,594,769	0			8,006,451
9	Total Available Energy during 2013-14	0	89036				73338.9532
10	T&D Losses	0	18%				

S. No.	Calculation steps	Particulars/States → ↓	Andhra Pradesh
1	Data Source - Census, 2011	Total Households in State (nos.)	22,970,923
2		Total Urban Households (nos.)	8,229,177
3		Total Rural Households (nos.)	14,927,512
4		Total Electrified Households (nos.)	21,194,014
5		Total Electrified Households - Urban (nos.)	8,006,451
6		Total Electrified Households - Rural (nos.)	13,187,563
7	=(1-4)	Balance Unelectrified Households (nos.)	1,776,909
8	=(2-5)	Balance Unelectrified Households - Urban (nos.)	222,727
9	=(3-6)	Balance Unelectrified Households - Rural (nos.)	1,739,949
10		BPL Households Electrified under RGGVY during 2010-14 (nos.)	405,110
11	=(9-10)	Balance Unelectrified Households (nos.)	1,334,839
12		Electrification of Houses under 12th & 13th Plan (nos.)	
13	=(11-12)	Balance Unelectrified Households (nos.)	1,334,839
14		Balance Unelectrified households as per State Government (nos.)	
15		Annual Energy Sold in the State during 2013-14 (MUs)	73,338.95
16		Annual Domestic Energy Sold in the State during 2013-14 (%)	23.45%
17	=(15 x 16)	Annual Domestic Energy Sold in the State during 2013-14 (MUs)	17,197.98
18	=(17/1) * 10 ⁶	Average Annual Energy Consumption per household during 2013-14 (kWh)	811.45
19	=(18)/365	Average Daily Energy Consumption per household during 2013-14 (kWh)	2.22
20		Ratio of Rural to Urban Household Consumption (i.e. for every 1 unit consumed in the Rural Household, 5 units are consumed in the Urban Household)	1 : 5
21	(17/((20*5)+6)) * 10 ⁶	Annual per household rural consumption (kWh)	323.15
22	=(21*6)/10 ⁶	Annual Total Rural Consumption (MUs)	4261.56
23	=21*5	Annual per Household Urban Consumption (kWh)	1615.75
24	=(23*5)/10 ⁶	Annual Total Urban Consumption (MUs)	12936.42
25	=(21)/365	Daily per household rural consumption (kWh)	0.89
26	=(25)*5	Daily per household Urban consumption (kWh)	4.43

Data to be entered in only the highlighted cells

3. Proposed capital expenditure required / planned for creating infrastructure

	2014-15	2015-16	2016-17	2017-18	2018-19
Augmentation of Sub transmission & distribution system(ST&D)					
RGGVY/ Electrification of un-electrified households					
NEF					
Feeder + Substation Improvement					
Transmission system					
RAPDRP					
Any other expenditure proposed/ required for providing PFA 24x7					
Total					

4. Program of State Govt to electrify un electrified households including remote households
5. Average revenue for domestic consumers on subsidy received basis & Average cost of purchase of Power for the next 5 years
6. Year wise availability of energy, Proposed year wise increase in the domestic & non domestic energy in next 5 years
5. Any other assistance required from Central Government

Annex - II

Format for furnishing the data for PFA 24x7 for the state of Andhra Pradesh

1. Household and Energy data

S. No.	Calculation steps	Particulars (As on 01.04.2014) ↓	Andhra Pradesh
1		Total Households in State (nos.) as on 1-04-2014	
2		Urban Households (nos.) as on 1-04-2014	
3		Rural Households (nos.) as on 1-04-2014	
4		Total Electrified Households (nos.) as on 1-04-2014	
5		Electrified Households - Urban (nos.) as on 1-04-2014	
6		Electrified Households - Rural (nos.) as on 1-04-2014	
7	=(1-4)	Balance Unelectrified Households (nos.)	
8	=(2-5)	Balance Unelectrified Households - Urban (nos.)	
9	=(3-6)	Balance Unelectrified Households - Rural (nos.)	
10		Annual Energy Sold in the State during 2013-14 (MUs)	
11		Annual Domestic Energy Sold in the State during 2013-14 (MUs)	
12		Annual Other than domestic Energy (Agriculture, Commercial, Industrial) Sold in the State during 2013-14 (MUs)	
13		%age of Energy Sold to various category of consumers in the State during 2013-14 (%)	
14	10/4	Average Annual Energy Consumption per household during 2013-14 (Units)	
15	14/365	Average Daily Energy Consumption per household during 2013-14 (Units)	
16		Annual Total Rural Consumption in the state (MUs)	
17	16/6	Annual per household rural consumption (kWh)	
18		Annual Total Urban Consumption (MUs)	
19	18/5	Annual per Household Urban Consumption (kWh)	
20	17/365	Daily per household rural consumption (kWh)	
21	19/365	Daily per household Urban consumption (kWh)	
22		Average revenue for domestic consumers on subsidy received basis for 2013-14	
23		Average cost of power procurement in 2013-14	

2. Details of Energy available in Andhra Pradesh during 2013-14

1	Total Available Energy during 2013-14 (Ex Bus)	
2	Total Available Energy as the periphery of state during 2013-14	
3	Total Energy sold during 2013-14	
4	AT&C losses 2013-14	

S. No.	Particulars→ ↓	Andhra Pradesh				
		2014-15	2015-16	2016-17	2017-18	2018-19
Case - 1 : 24x7 Power Supply to Electrified Households						
1.						
A	Demand Projections					
1	Consumption of Rural Electrified Households					
i)	Consumption (units per day per household)	14440.38	14440.38	19253.84	24067.30	24067.30
ii)	Annual Energy Requirement (MUs)					
2	Consumption of Urban Electrified Households				9	12
i)	Consumption (units per day per household)	14611.77	20456.48	26301.19	35068.25	43835.32
ii)	Annual Energy Requirement (MUs)					
3	Consumption of Total Electrified Households	29052.15	34896.86	45555.03	59135.56	67902.62
i)	Total Annual Energy Requirements for 24x7 supply to Electrified Households					
4	Additional Energy Available (MUs)	17,197.98	17197.98	17197.98	17197.98	17197.98
i)	Current Energy Available (MUs)	11,854.17	17698.88	28357.05	41937.57	50704.63
ii)	Additional Energy Required (MUs)	13634.34	13009.98	17197.98	12008.08	14508.08
iii)	AT&C losses (%)	13724.87	20343.54	32408.05	47656.33	57293.37
iv)	Additional Energy Procurement @24.81% losses					
5	Implications on Cost for supplying 24x7 power	5489.95	8137.42	12963.22	19062.53	22917.35
i)	Cost of Power Purchase say @ Rs. 4.00/kWh (Rs. Crores)					
Tariff implication on cost for supplying 24x7 power to all Electrified household						
B	Tariff implication on cost for supplying 24x7 power to all Electrified household	5489.95	8137.42	12963.22	19062.53	22917.35
6	Additional Power Purchase Cost (Rs. Crores)	0.00	0.00	0.00	0.00	0.00
7	Annual T&D Infrastructure Cost (Rs. Crores) (@total cost of Rs. 2546 Crores)	5489.95	8137.42	12963.22	19062.53	22917.35
8	Total (Rs. Crores)	5489.95	8137.42	12963.22	19062.53	22917.35
9	Average Revenue on Subsidy received basis (Rs./kWh)	11,854.17	17698.88	28357.05	41937.57	50704.63
10	Sale of Additional Energy Required (MUs)	3473.27	5185.77	8308.61	12287.71	14856.46
11	Average Revenue (Rs. Crores)	2016.68	2951.64	4654.61	6774.82	8060.89
12	Additional Cost (Rs. Crores)	85,193.12	91037.83	101696.00	115276.52	124043.59
13	Total Energy Sale (Existing + Additional Energy)	0.24	0.32	0.46	0.59	0.65

act on Tariff (Rs./kWh)

10:35AM FAX

Source :
PFC