Regd. No. 55078/2006

CONSORTIUM OF INDIAN FARMERS ASSOCIATIONS (CIFA)

भारतीय किसान – सांघ परिसंघ (सिफा)

P. Chengal Reddy
Chief Advisor
984912600

Raghunath Dada Patil
President
8668613509

Gandham Srinivasa Rao
Technical Adviser
9676996564

Date: 8th Jan 2024

To

Sri Justice C.V. Nagarjuna Reddy Sir,
Honourable Chairman, APERC,
11-4-660, 4th Floor, Singareni Bhavan,
Red Hills, HYDERABAD - 500 004

Subject: **Objections on ARR & Tariff Proposal for Retail Supply FY 2024-25**

Dear Sri Justice C.V. Nagarjuna Reddy Sir,

Please find below objections on Aggregate Revenue Requirement and Tariff Proposal for the Retail Supply Business for FY 2024-25. We will attend public hearing as per scheduled dates.

- Please share the list of sales forecast Mu's from 3rd Party & IEX
- Please share other liabilities list from balance sheet
- Please share the previous year arrears (outstanding amount from customers) from all discoms
- Please share list of solar roof top connections and list of buyback meter issued vs pending against solar roof top connections from each discom.
- Please explain different T&D losses at different places within Discom ARR document.

The Licensee has, thereafter, grossed up the energy sales (MU) at the specific voltage levels with T &D losses (%) as estimated in this filings for FY 2024-25 for arriving at the power purchase requirement (MU). The summary of the voltage wise losses considered are shown in the Table below:

Projected T&D Losses for FY 2024-25	
Particulars	**Loss %**
T&D Loss applicable to LT Sales	14.30
T&D Loss applicable to 11 KV Sales	9.71
T&D Loss applicable to 33 KV Sales	6.63
T&D Loss applicable to 132 KV and above sales	3.55

Applying the above losses, the power purchase requirement / energy input (MU) for the respective voltage levels is arrived at as shown in the Table below:

APEPDCL - DISCOM Losses		
Voltage Level	**Revised FY 2023-24**	**FY 2024-25**
33 KV	2.98%	3.34%
11 KV	3.26%	3.39%
LT	3.90%	3.42%

4.2 Transmission Losses

The Transmission losses including external PGCIL losses for H2 FY 2023-24&for FY 2024-25 are 3.55%asshown below:

Transmission Losses FY2023-24 H2	Transmission Losses FY 2024-25
3.55%	3.55%

Particulars	Detail Links	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Total Sales, MU		**27552.60**	**28686.75**	**0.00**	**0.00**	**0.00**	**0.00**
Sales (LT, 11kV, 33kV) (MU)	Form 3	21479.42	22011.64				
EHT Sales (MU)	Form 3	6073.18	6675.11				
Total Losses, MU		**3415.94**	**3480.25**	**0.00**	**0.00**	**0.00**	**0.00**
Distribution System Losses (MU)	Form 4a	2316.55	2338.32				
Transmission System Losses (MU)		1099.38	1141.93				
Total Losses, (%)		**11.03**	**10.82**	**0.00**	**0.00**	**0.00**	**0.00**
Transmission Losses (%)		3.55	3.55				
Distribution System Losses(%)	Form 4a	9.74	9.60				
Input to Distribution System		23795.97	24349.96	0.00	0.00	0.00	0.00
Power Purchase Requirement (MU)		**30968.54**	**32167.00**	**0.00**	**0.00**	**0.00**	**0.00**
Availability	Form 4.1	29310.34	34079.51				
Dispatch	Form 4.2	30865.56	32167.00				
Surplus /(deficit)		**-1658.19**	**1912.51**	**0.00**	**0.00**	**0.00**	**0.00**

Form 4a Energy Losses (Distribution System)

	Particulars		2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
I. Losses in 33 KV System and Connected Equipment								
(i)	Total Energy delivered into 33 KV Distribution System from EHT SSs	A	22308.43	22827.79				
(ii)	Energy delivered by all other Generating Stations at 33kV	B	1380.33	1412.46				
(iii)	Energy consumed by HT consumers at 33KV (Sales + Third Party)	X	2825.74	3107.04				
(iv)	Energy Delivered into 11 KV and LT System from 33/11 KV SSs	C	20104.98	20359.95				
	Losses (33 kV System)	**(A + B) - (C + X)**	**758.04**	**773.26**	**0.00**	**0.00**	**0.00**	**0.00**
	% Losses (33 kV System)	**100 x [(A+B)-(C+X)] / (A+B)**	**3.20**	**3.19**	**0.00**	**0.00**	**0.00**	**0.00**
II. Losses in 11 KV System and Connected Equipment								
(i)	Energy delivered into 11 KV system from 33/11kV SSs	C	20104.98	20359.95				
(ii)	Energy delivered into 11 KV Distribution System from EHT SSs	D	94.03	96.22				
(iii)	Energy delivered at 11kV from all other Generating Stations	E	13.18	13.49				
(iv)	Total Energy delivered into 11 KV and LT Distribution System	C+D+E	20212.19	20469.66	0.00	0.00	0.00	0.00
(v)	Energy consumed by HT consumers at 11KV (Sales + Third Party)	Y	2095.51	2312.02				
(vi)	Total Output from 11kV to LT	F	17447.66	17482.13				
	Losses (11kV System)	**(C + D + E) - (Y + F)**	**669.02**	**675.50**	**0.00**	**0.00**	**0.00**	**0.00**
	% Losses (11kV System)	**[(C+D+E)-(Y+F)] x 100 / (C+D+E)**	**3.31**	**3.30**	**0.00**	**0.00**	**0.00**	**0.00**
III. Losses in LT system and connected equipment								
(i)	Energy delivered to LT system from 11/400 V DTRs	F	17447.66	17482.13				
(ii)	Energy sold to metered categories	Z	8509.58	8946.32				
(iii)	Energy sold to un-metered categories	N	8048.59	7646.26				
	Losses (LT System)	**F-(Z+N)**	**889.49**	**889.56**	**0.00**	**0.00**	**0.00**	**0.00**
	% Losses (LT System)	**[F-(Z+N)] x 100 / (F)**	**5.10**	**5.09**	**0.00**	**0.00**	**0.00**	**0.00**
IV. Total losses in the Distribution System								
(i)	Total Input to the distribution system	A + B + D + E	23795.97	24349.96	0.00	0.00	0.00	0.00
(ii)	Total Output from the Distribution Sytem	X + Y + Z + N	21479.42	22011.64	0.00	0.00	0.00	0.00
(iii)	EHT Sales	G	6073.18	6675.11				
	Distribution System Losses	**(A + B + D + E)-(X + Y + Z + N)**	**2316.55**	**2338.32**	**0.00**	**0.00**	**0.00**	**0.00**
	% Distribution System Losses (Excluding EHT Sales)	**[(A+B+D+E)-(X+Y+Z+N)] x 100 / (A+B+D+E)**	**9.74**	**9.60**	**0.00**	**0.00**	**0.00**	**0.00**
	% Distribution System Losses (Including EHT Sales)	**[(A+B+D+E)-(X+Y+Z+N)] x 100 / (A+B+D+E +G)**	**7.76**	**7.54**	**0.00**	**0.00**	**0.00**	**0.00**

Form 4B - Transmission Losses

Relates to detailed calculation of the Transmission Losses percentage entered in **Form 4**. The working of the losses (MU & percentages) to be entered under working notes **Form 4b**.

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Total Transmission Losses (Inclusive of PGCIL) (%)	3.55	3.55				
Input to APTransco Network (MU)						
APTransco Losses (%)						
APTransco Losses (MU)						
Input to PGCIL (For CGS) (MU)						
PGCIL Losses (%) (For CGS)						
PGCIL Losses (MU) (For CGS)						

- Please elaborate on 3 different Agricultural components at LT category

The table below is a summary of the sales forecast for FY 2023-24 and FY 2024-25.The trend of sales of FY 2017-18 to 2024-25 is also shown below:

Sales(MU):

Category	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24 Revised Estimate	2024-25 Projections
LT Category	**10094.80**	**10764.34**	**11990.62**	**12108.28**	**12669.58**	**12862.34**	**14056.29**	**15013.56**
I(A): Domestic- LT	5184.40	5507.20	6076.11	6532.78	6736.35	6776.07	7261.91	7741.84
II: Commercial and others- LT	975.93	1034.64	1115.53	923.46	1084.81	1269.87	1382.68	1501.26
III: Industry- LT	433.28	451.36	446.80	418.10	442.32	452.73	474.80	494.59
IV: Institutional- LT	319.66	336.37	372.55	347.61	392.73	431.64	482.62	508.32
V: Agriculture & Related- LT	3181.54	3434.78	3979.63	3886.34	4013.36	3932.03	4454.29	4767.55
Agriculture	2293.19	2282.64	2557.78	2396.23	2221.51	2031.39	2323.54	2439.72
Other than agriculture	888.35	1152.13	1421.85	1490.10	1791.86	1900.64	2130.75	2327.83
HT Category at 11 kv	**1847.48**	**1966.34**	**2029.40**	**1943.24**	**2134.17**	**2221.86**	**2431.05**	**2586.17**

- Please explain differences of Average cost of unit supply across discoms.

Average Revenue Realized vs Average CoS break up for APSPDCL in FY 2024-25

- Average Cost of Supply (CoS) for APSPDCL - Rs. 7.97/kWh
- Average CoS break-up (per unit of Sales) for APSPDCL is as follows:-

Particulars	FY 2023-24 Approved (Rs./Unit)	FY 2023-24 Projected (Rs./Unit)	FY 2024-25 Projected (Rs./Unit)
Power Purchase cost	4.32	5.13	4.69
T&D Loss Cost	0.45	0.62	0.57
Network Cost	2.50	2.28	2.39
Other Cost	0.26	0.27	0.32
Cost of Service	**7.53**	**8.29**	**7.97**

7. Average Revenue Realized vs Average CoS break up for APCPDCL in FY 2024-25:

- Average Revenue Realisation (ARR) for FY 2024-25 through Proposed tariffs is Rs.7.85/kWh
- Average Cost of Supply (CoS) for APCPDCL - Rs. 7.85/kWh
- Average CoS break-up (per unit of Sales) for APCPDCL is as follows:-

Particulars	**FY 2023-24 Approved (Rs./Unit)**	**FY 2023-24 Projected (Rs./Unit)**	**FY 2024-25 Projected (Rs./Unit)**
Power Purchase cost	4.33	5.13	4.70
T&D Loss Cost	0.51	0.62	0.59
Network Cost	2.50	2.50	2.21
Other Cost	7.83	0.26	0.36
Cost of Service	**7.59**	**8.52**	**7.85**

7 Average Revenue Realized vs Average CoS break up for APEPDCL in FY2024-25

- Average Revenue Realized (ARR) for FY 2024-25 through Proposed tariffs (Full Cost Recovery) is Rs.7.09/kWh
- Average Cost of Supply (CoS) for APEPDCL - Rs. 7.09/kWh
- Average CoS break-up (per unit of Sales) for APEPDCL is as follows:

ARR Parameters	**FY 23-24 Approved (Rs./Unit)**	**FY 23-24 Estimated (Rs./Unit)**	**FY 24-25 Projected (Rs./Unit)**
Power Purchase cost	4.30	5.13	4.69
T&D Loss Cost	0.41	0.51	0.49
Network cost	1.88	1.83	1.63
Other Cost	0.22	0.26	0.28
Cost of Service	**6.81**	**7.72**	**7.09**

- Please explain to stop implementation of Agricultural solar pumps post 2018 to replace existing pumps as MNRE PMKUSUM Scheme.

5.9.1. Amount Payable towards Agriculture Solar Pump sets

Prior to the bifurcation of APCPDCL from APSPDCL, APSPDCL has incurred debt of Rs.195.39 Crs. as part of implementation of erection of solar pump sets upto FY 2020-21. APCPDCL was granted licence to carryout distribution activity with effect from 01-04-20. Hence, the repayments are bifurcated between APSPDCL & APCPDCL in the ratio of 63.02% and 36.98% respectively and repayment amount paid/to be paid by APCPDCL is as shown below.

Year wise repayment of loan (Rs.in Crs)				
2021-22	**2022-23**	**2023-24**	**2024-25**	**Total**
13.77	13.52	11.69	11.69	**50.67**

From the FY 2021-22 onwards, APCPDCL did not claim the above expenditure during the respective year ARR filings and the above expenditure is projected during this ARR filing for FY 2024-25 for an amount of Rs.50.67 Crs incurred against loan repayment

The details of Other Costs projected by Licensee for FY 2023-24 and FY 2024-25 are as follows:

Form 1.7	Other Costs		
Sl. No	Particulars	Amount (In Rs crores)	
		Base Year	FY 2024-25
1	Payment AGL Solar pumpsets	14.79	14.79
2	Energy Efficient Pump Sets	12.21	15.28
3	DELP	2.65	2.63
4	Compensation to the victims of Electrical Accidents	10.00	10.00
5	Grants to APSEEDCO	1.00	0.00
6	DBT to be returned for FY 2021-22 (True down/up) as pe T.O FY 2023-24 *	0.00	47.54
	Total	**40.65**	**90.24**

*** Note : Concessions to various categories of Consumers (Scheme Subsidy) actual has been booked for Rs.643.15 Crs only against the APERC approved of Rs. 690.69 Crs**

The above project was approved by Honourable APERC vide order in OP.No.20 of 2017, dated 17-06-2017.

Till now the APSPDCL has replaced 31301 Nos. 5HP energy efficient submersible pumpsets in its jurisdiction. The expenditure proposed to be incurred by the licensee towards repayment of interest on loan for FY 2023-24 & FY 2024-25 are Rs.29.82 Crs. And Rs.28.17 Crs. Respectively.

5.8.2 Reserve fund towards relief to victims of electrical accidents

During FY 2023-24, upto Aug'23 the DISCOM has sanctioned compensation to the victims of electrical accidents an amount of Rs.4.21 Crs. Hence it is proposed to incur an amount of Rs.10 Crs. towards reserve fund for relief to victims of electrical accidents for FY 2024-25.

2.3.4 Grants to APSEEDCO for promotion of Energy Conservation

In the Tariff Order for FY 2019-20, the Honourable APERC has directed to include the grants for APSEEDCO at not lower than the approved level for FY 2019-20 for the next four years in the ARR & Tariff filings for Retail Sale of Electricity. The direction of the Honourable Commission is applicable only upto FY 2023-24. Hence the licensee has not proposed any further amount for grants to APSEEDCO for FY 2024-25.

2.3.5 DBT Returned for FY 2021-22 in RSTO 2023-24

The Honourable APERC approved tariff Concession extended to various class of categories under DBT for an amount of Rs.482.44 Crs. For FY 2021-22. The actual tariff concession for FY 2021-22 is Rs.366.75 Crs. The Honourable APERC in the Tariff Order for FY 2023-24 has trued down an amount of Rs.115.69 Crs. Being the difference between approved and actual tariff concession.

However, the DISCOM has received only the actual tariff concession of Rs.366.75 Crs. only and not Rs.482.44 Crs.. Hence the return of DBT for FY 2021-22 in RSTO FY 2023-24 is to be trued up.

The other costs during FY 2023-24 & FY 2024-25 are submitted below.

Rs. Crs.

Other Costs		
Particulars	**2023-24**	**2024-25**
Agricultural Solar Pumpsets	19.92	19.93
Energy Efficient Pump Sets	29.82	28.17
Compensation for victims of electrical accidents	10.00	10.00
Grants to APSEEDCO	1.27	
DBT Returned for FY 2021-22 in RSTO 2023-24		115.69
Financial impact on account of differential Tariff for 220KV consumers for FY 2018-19 (as per orders in OP.No.60 of 2017)	7.06	
Total	**68.07**	**173.79**

5.8.1 Solar pumpsets (Off Grid) :

The Solar pumpsets erected in APSPDCL (5 districts) till date are 7348 No. The agricultural demand met through off grid power out of total agricultural demand of licensee is as follows:

Particulars	FY 2023-24	FY 2024-25
Agricutlural demand met through Grid Power (MU)	8048.59	7646.26
Agricutlural demand met through Solar (MU)	55.08	55.08
Total agricultural Demand (MU)	**8103.67**	**7701.34**

The above power requirement met through solar power is not included in power purchase cost calculation. The consumer contribution is 11% of the project cost, the MNRE, Govt. of India provides 33% of the project cost as subsidy and balance 56% is to be borne by the licensee. The following table shows the cost-breakup of solar-pumpsets and Discom's contribution for which it is liable to repay the loan instalments.

S.No	Name of the phase	Total cost of 5HP Pumpset				Total cost of 3HP Pumpset			
		MNRE Subsidy in Rupees	APDISCOM s in Rupees	Beneficiary contribution in Rupees	Total (in Rupees)	MNRE Subsidy in Rupees	APDISCOM s in Rupees	Beneficiary contribution in Rupees	Total (in Rupees)
1	Phase-I (01.03.2015 - 31.08.2015)	162000	273000	55000	**490000**	97200	183160	40000	**320360**
2	Phase-II (01.09.2015 - 30.06.2016)	162000	212000	55000	**429000**	97200	199178	40000	**336378**
3	Phase-III (01.07.2016- 22-03-2017)	162000	152300	55000	**369300**	97200	152000	40000	**289200**
4	Phase-IV (23.03.2017 - 23.05.2017)	162000	95253	55000	**312253**	97200	131800	40000	**269000**
5	Phase- v (24.05.2017 -17.10.2017)	162000	88999	55000	**305999**	97200	122800	40000	**260000**
6	Phase-VI (18.10.2017 -26.03.2018)	85000	172200	55000	**312200**	75000	140365	40000	**255365**
7	Phase-VII (27.03.2018 -18.11.2018)	85000	164000	55000	**324000**	75000	121999	40000	**236999**
8	Phase-VIII (19.11.2018 -onwards)	0	187636	55000	**242636** (Excluding GST)	0	152305	40000	**192305** (Excluding GST)

The DISCOM has incurred debt of Rs.195.39 Crs. as part of implementation of erection of solar pumpsets upto FY 2020-21. APCPDCL was granted licence to carryout distribution activity with effect from 01-04-20. Hence, the repayments are bifurcated between APSPDCL & APCPDCL in the ratio of 63.02% and 36.98% respectively. Hence the DISCOM is projected to incur cost towards repayment of loan for FY 2023-24 of Rs.19.92 Crs. and for FY 2024-25 of Rs.19.93 Crs.

5.8.2 Energy Efficient pump sets : The licensee proposed to replace 65,000 Nos. of old pumpsets with BEE 5 Star rated 5 HP energy efficient submersible pump sets with smart control panels in the APSPDCL (8 districts). The details of the project costs are given below.

Particulars		Amount Rs. crs
Number of submersible pump sets	65000	
Total cost of EEPS with smart control panel with five years maintenance (Inclusive of Tax)	37676	244.90
EEPS installation cost @ Rs. 4600/ unit		29.90
EESL PMC charges over five years	5%	13.74
Cost for awareness & Distribution (inclusive of call centre agency & software agency)		4.00
Total Project Cost		**292.54**

- Please let us know why JNNSM PH1 Solar allocation units has reduced from 2776.72 to 17.20 for 2024-25 and no update on utilization of these units across other DISCOMs.

Source/Plant	FY 2023-24 – Revised Estimate		FY 2024-25– ARR Estimate	
	Allocated Availability (MU)	Required Dispatch (MU)	Allocated Availability (MU)	Required Dispatch (MU)
HNPCL	310.51	215.72	1991.88	1991.88
IPP TOTAL	2143.82	2097.56	**6712.39**	**6429.25**
NCE- Others	4722.10	4681.26	89.01	89.01
NCE Solar	109.33	110.02	1823.21	1823.21
NCE WIND	1899.92	1908.20	2631.59	2631.59
JNNSM PH 1 SOLAR	2749.09	2767.72	17.20	17.20
JNNSM PH 2 SOLAR	17.22	17.46	**1058.05**	1058.05
SECI 3000 MW APRAPL	1083.73	1093.40	1292.61	1292.61
NCE TOTAL	5859.30	5896.81	**6911.67**	**6911.67**
NET SHORTTERM		2118.77	162.03	162.03
TOTAL	**29310.34**	**30865.56**	**34241.54**	**32167.00**

Summary of Power Purchase Cost – APSPDCL

Summary of Power Purchase cost of APSPDCL for current financial year FY 2023-24 revised estimate and for ensuing financial year FY 2024-25 as per ARR workings is presented as below:

Source	Despatch (MU)	Fixed Cost (Rs CRs)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)	FC- Rs/Unit	VC- Rs/Unit	TC- Rs/Unit
AP Genco-Thermal	8043.19	1031.03	3199.98	4313.44	1.28	3.98	5.36
AP Genco-Hydro	1066.51	215.99	0.00	215.99	2.03	0.00	2.03
Joint Sector	3962.93	657.86	1437.49	2095.35	1.66	3.63	5.29
CGS	5096.10	594.47	1919.03	2514.81	1.17	3.77	4.93
IPPs	4681.26	722.00	1387.49	2146.41	1.54	2.96	4.59
NCE & RE	5896.81	6.03	2678.36	2687.55	0.01	4.54	4.56
Market & Others	2118.77	65.59	1917.30	1857.16	0.31	9.05	8.77
Total	**30865.56**	**3292.98**	**12539.65**	**15830.71**	**1.07**	**4.06**	**5.13**

24-25

Source	Despatch (MU)	Fixed Cost (Rs CRs)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)	FC- Rs/Unit	VC- Rs/Unit	TC- Rs/Unit
AP Genco-Thermal	8184.32	1601.67	2881.70	4483.37	1.96	3.52	5.48
AP Genco-Hydro	1288.23	279.97	0.00	279.97	2.17	0.00	2.17
Joint Sector	4158.81	891.47	1371.16	2262.63	2.14	3.30	5.44
CGS	5032.69	591.79	1643.12	2234.92	1.18	3.26	4.44
IPPs	6429.25	1034.51	1784.27	2857.89	1.61	2.78	4.45
NCE & RE	6911.67	4.85	2886.91	2891.76	0.01	4.18	4.18
Market & Others	162.03	0.00	83.61	83.61	0.00	5.16	5.16
Total	**32167.00**	**4404.26**	**10650.77**	**15094.14**	**1.37**	**3.31**	**4.69**

Source/Plant	FY 2023-24 – Revised Estimate		FY 2024-25– ARR Estimate	
NTPC Kudgi Stage-I	624.27	507.74	650.93	152.27
NTECL Valluru	225.01	209.13	250.16	85.52
NLC Stage-I	94.91	96.65	127.06	127.06
NLC Stage-II	153.65	154.88	237.27	237.27
NPC(MAPS)	20.66	20.34	36.92	36.92
NPC(KAIGA unit I,II,III,IV)	320.90	316.40	257.24	257.24
NTPL(NLC TamilNadu)	322.75	304.29	341.74	341.74
NLC NNTPS	138.84	139.68	148.11	148.11
KKNPP Unit-I	4.35	4.28	5.58	5.58
NLC TPS- I Expn.	6.27	6.25	6.58	6.58
NLC TPS- II Expn.	4.33	4.20	5.55	5.55
NTPC Telangana STPS - I	9.87	9.48	22.29	20.32
JNNSM Ph-1 Thermal	99.54	98.42	115.62	115.62
CGS TOTAL	**5469.98**	**4963.47**	**5824.98**	**5159.72**
SEIL-P 1-230.55 MW	726.18	703.02	801.51	801.51
SEIL-P 2 -500 MW (Committed)	1526.78	1597.34	1664.20	1664.20
SEIL-P 2 -125 MW (Open)	308.23	217.21	416.05	125.66
SEIL-P 1 -625 MW (Open)	-	-	1955.54	1955.54
HNPCL	2138.81	2046.12	2044.60	2044.60
IPP TOTAL	**4700.01**	**4563.70**	**6881.90165**	**6591.51**
NCE- Others	109.86	108.64	92.06	92.06
NCE Solar	1876.71	1841.89	1858.96	1858.96
NCE WIND	2721.26	2690.87	2749.65	2749.65
JNNSM PH 1 SOLAR	17.17	16.84	17.56	17.56
JNNSM PH 2 SOLAR	1079.69	1065.17	1086.71	1086.71
SECI-300/7000-APRAPL	-	-	1302.75	1302.75
NCE TOTAL	**5804.69**	**5723.42**	**7107.68**	**7107.68**
Short Term Purchase	2266.80	2266.80	165.53	165.53
D<>D	400.07	400.07	-	-
Total	**31805.9859**	**30635.04**	**35108.32**	**32945.65**

Source/Plant	FY 2023-24 – Revised Estimate		FY 2024-25– ARR Estimate	
	Allocated Availability (MU)	Required Dispatch (MU)	Allocated Availability (MU)	Required Dispatch (MU)
NTPC(SR) Ramagundam III	125.82	118.88	115.16	115.16
NTPC Kudgi Stage-I	343.92	282.74	355.83	86.18
NTECL Valluru	124.04	117.87	136.68	48.54
NLC Stage-I	51.81	53.68	69.64	69.64
NLC Stage-II	83.56	85.41	129.38	129.38
NPC(MAPS)	11.32	11.44	20.14	20.14
NPC(KAIGA unit I,II,III,IV)	177.20	179.08	141.04	141.04
NTPL(NLC TamilNadu)	177.17	170.18	186.22	186.22
NLC NNTPS	75.95	78.39	80.80	80.80
KKNPP Unit-I	2.37	2.39	3.04	3.04
NLC TPS- I Expn.	3.46	3.53	3.61	3.61
NLC TPS- II Expn.	2.36	2.35	3.03	3.03
NTPC Telangana STPS - I	5.31	5.11	12.16	11.13
JNNSM Ph-1 Thermal	54.67	55.10	63.15	63.15
UI CHARGES (DSM)	0.00	-5.91		
CGS TOTAL	**3013.14**	**2786.87**	**3182.43**	**2823.60**
SEIL P1 (Formerly Thermal Powertech)	400.99	397.53	437.27	437.27
SEIL P1 (625MW)			1066.86	1066.86
SEIL P2 (500MW Firm)	837.94	898.63	908.15	908.15
SEIL P2 (125MW Open Cap)	168.93	116.07	227.04	71.57
HNPCL	1180.40	1153.97	1115.45	1115.45
IPP TOTAL	**2588.26**	**2566.18**	**3754.76**	**3599.29**
NCE- Others	60.12	60.65	49.89	49.89
NCE Solar	1037.00	1043.54	1018.43	1018.43
NCE WIND	1512.90	1525.18	1498.72	1498.72
JNNSM PH 1 SOLAR	9.50	9.60	9.66	9.66
JNNSM PH 2 SOLAR	595.04	599.94	593.43	593.43
SECI 3000 MW APRAPL			698.65	698.65
NCE TOTAL	**3214.57**	**3238.91**	**3868.78**	**3868.78**

- Please let us know the source of NCE/RE for remaining 10283.13MW
  Total available NCE/RE – 7605 MW
  APCPDCL – 3868.78 MW
  APSPDCL – 6911.67 MW
  APEPDCL - 7107.68 MW
  Total supply to discoms– 17888.13 MW from the below plants
  NCE- Others
  NCE Solar
  NCE WIND
  JNNSM PH 1 SOLAR
  JNNSM PH 2 SOLAR
  SECI 3000 MW APRAPL

RENEWABLE ENERGY PLANTS

APDISCOMs are having PPAs with the following Non-Conventional/Renewable Energy plants for the second half of FY 2023-24 and FY 2024-25 as given below.

TYPE OF NCE PROJECT	Capacity Contracted (MW)	APCPDCL Share (MW)
Biomass power projects including Co-gen	64	15
Bagasse Co generation	61	14
Mini hydel power projects	29	7
Industrial waste based power projects	22	5
Municipal waste	36	8
Solar	2466	576
Wind	3639	849
JNNSM-Ph-I -Bundled Solar	39	9
JNNSM-Ph-II -Bundled Solar	1250	292
Total	**7605**	**1775**

- Please update the reasons not much an additional NCE/RE from 2019 to till date
  5671.4 MW out of 16553 MW as on 30-06-2017
  6522.4 MW out of 17905 MW as on 31-03-2018
  7060 MW out of 18930MW as on 31-03-2019
  7626.936MW out of 19832MW as on 31-03-2023 where 7605 MW as per ARR 2024-25 in spite of solar roof top installations.

3.1.8 Non-Conventional Energy Sources (NCE)

The installed capacity of NCE projects as on 31-03-2023 is tabulated below.

Sr. No.	Source of Power	AP Share (MW)
1	NCE Biomass	72
2	NCE Bagasse	74
3	NCE - Industrial Waste based Power project	21.66
4	NCE - Municipal Solid Waste Projects	36.15
5	NCE- Wind	3638.95
6	NCE - Solar	3755.62
7	NCE- Mini Hydel	28.55
Total from NCE		**7626.94**

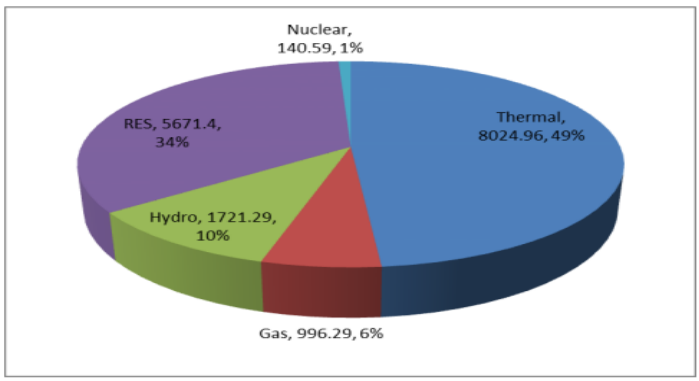
Consumer Category	Roof Top installation in MW						
	FY18	FY19	FY20	FY21	FY22	FY23	CAGR
LT I	10.165	16.861	29.932	39.959	56.245	79.384	50.84%
LT II	32.15	55.68	73.73	95.785	122.286	154.117	36.82%
LT III	6.053	8.696	14.047	17.045	21.472	28.271	36.11%
LT IV	13.682	25.157	63.824	71.573	78.062	87.539	44.95%
HT I	0.36	1.176	1.286	2.392	2.602	2.602	48.53%
HT II	35.776	46.086	57.382	60.936	63.377	65.468	12.85%
HT III	41.516	44.363	51.9	57.505	61.52	63.621	8.91%
HT IV	10.45	9.41	13.11	8.87	9.02	9.23	-2.45%
Total	150.152	207.429	305.211	354.065	414.584	490.232	26.70%

https://aperc.gov.in/admin/upload/ElectricityPlanAPTransco.pdf

The total installed capacity of Andhra Pradesh is 16,553 MW as per power allocation after state bifurcation as on 30-06-2017. The total number of consumers in the state is 171.82 lakhs which includes 138.85 lakhs of domestic, 12.54 lakhs of commercial, 1.44 lakhs of industrial, 16.57 lakhs of agricultural categories as on 31.3.2017. The total energy consumption (at utility periphery) in Andhra Pradesh during FY 2016-17 was 55,160 MU and the peak demand was 7,965 MW.

1.3.1 Installed Capacity

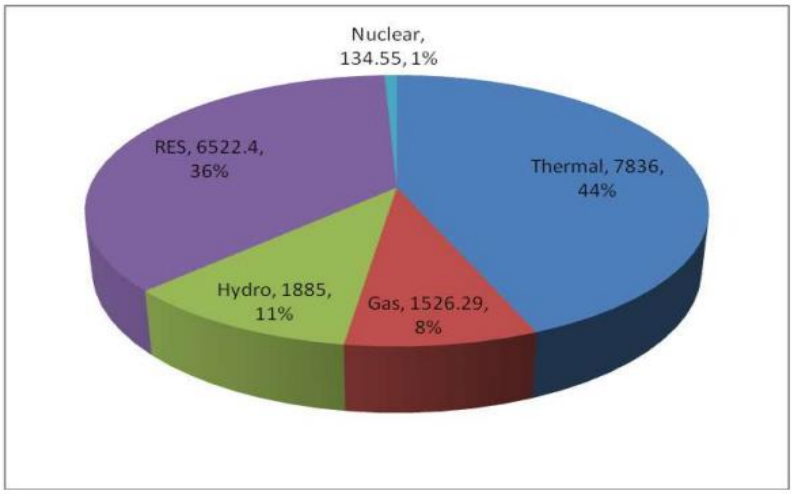
The present installed capacity in the state is 16,553 MW , comprising 4,410 MW of APGenco thermal, 1,721 MW of APGenco hydel, 251 MW of APGPCL & APDiscom Gas, 2,089 MW of CGS Share, 2,415 MW of IPP's & others and 5,671 MW of NCE's.



https://aperc.gov.in/admin/upload/SEP3172018compressed.pdf

1.4 Installed Capacity

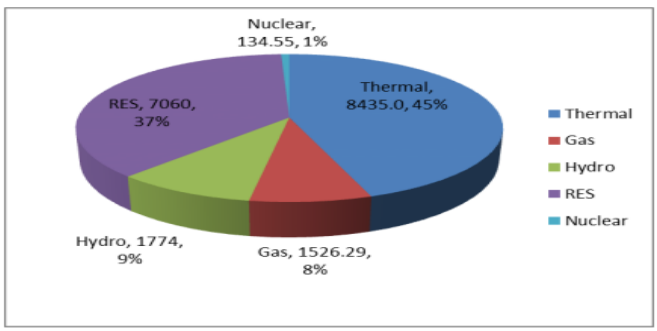
The present installed capacity as on 31-03-2018 in the state is 17,905 MW , comprising 5,010 MW of APGenco thermal, 1,798 MW of APGenco hydel, 251 MW of APGPCL & APDiscom Gas, 2,330 MW of CGS Share, 1905 MW of IPP's & others and 6,522 MW of NCE's.



https://www.apspdcl.in/regulatory/State%20Electricity%20Plan_4CP.pdf

1.4 Installed Capacity

The present installed capacity as on 31-03-2019 in the state is 18930 MW , comprising 5010 MW of APGenco thermal, 1,774 MW of APGenco Hydel, 1526 MW of Gas projects, 2,409 MW of CGS Share, 1105 MW of IPP's & others and 7060 MW of NCE's.



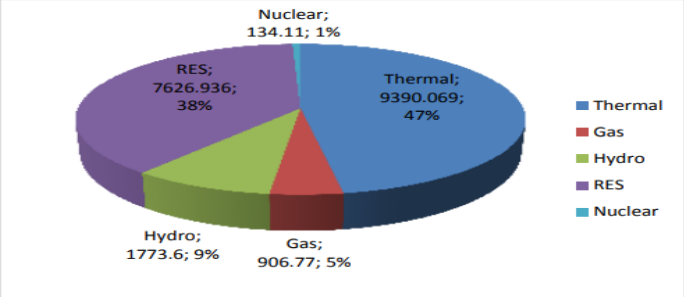
https://aptransco.co.in/state-electricity-plan-1.pdf

1.4 Installed Capacity

The present installed capacity as on 31-03-2023 of Andhra Pradhesh is 19832 MW, comprising 9390.069 MW of thermal, 1,773.6 MW of APGenco Hydel, 906.77 MW of Gas projects, 134.11 MW Nuclear & 7626.936MW Renewables.

7

State Electricity Plan FY2023-24 to FY2033-34



3.2 Abstract of Source Wise Contracted Capacities.

The details of capacities being contracted/ availed by APDISCOMs from various power stations as on 30th September 2023 is furnished in the following Table.

SOURCE	Installed/Contracted CAPACITY(MW)	APDISCOMs SHARE(%)	APDISCOMs CONTRACTED CAPACITY(MW)
APGENCO-THERMAL	3410.00	100%	3410.00
APGENCO-HYDEL	1773.60	100%	1773.60
JOINT SECTOR	2616.82	94%	2456.82
CGS-Allocated Capacity to the State	2024.17	100%	2024.17
IPPs-Coal	1895.55	100%	1895.55
IPPs-Gas	1498	46.11%	690.73
NCE/RE	7605.44	100%	7605.44
TOTAL	20,823.58		19,856.31

Yours Sincerely,
Thanks & Regards,

Srinivasa Rao Gandham
Advisor - CIFA (**Consortium of Indian Farmers Associations)**
Ph: 9676996564
E-mail: gandham76@gmail.com