



ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

4thFloor, Singareni Bhavan, Red Hills, Hyderabad 500004

TUESDAY, THE SEVENTEENTH DAY OF MAY
TWO THOUSAND AND TWENTY TWO

:Present:

Justice C.V. Nagarjuna Reddy, Chairman
Sri P. Rajagopal Reddy, Member
Sri Thakur Rama Singh, Member

IN THE MATTER OF

Determination of Pooled Cost of Power Purchase for FY 2020-21 to be considered for FY 2021-22 under the Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/Renewable Energy Certificates) Regulations, 2017 ([Regulation 1 of 2017](#))

in

[O.P.No. 14 of 2022](#)

Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)

[O.P.No. 15 of 2022](#)

Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)

[O.P.No. 16 of 2022](#)

Andhra Pradesh Central Power Distribution Corporation Limited (APCPDCL)

ORDER:

The Commission notified the APERC Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/Renewable Energy Certificates) Regulations, 2017 (Regulation No. 1 of 2017) on 31.03.2017. Clause 6.2. (1) of the said Regulations requires the Commission to issue an order relating to Pooled Cost of Power Purchase for the particular year pursuant to a petition filed by the DISCOMs. The 'Pooled Cost of Power Purchase' in Rs./kWh determined by the Commission is the rate payable by the DISCOMs to the developers who entered into the PPAs with them to sell

the Renewable Energy at the 'Pooled Cost of Power Purchase' under the REC mechanism. Clause 2(k) of the said Regulations defines the 'Pooled Cost of Power Purchase' as hereunder:

“‘Pooled Cost of Power Purchase’ means the weighted average pooled price at which the Distribution Licensee has purchased electricity in the previous year from all the long term energy suppliers excluding the purchases based on liquid fuel.

Provided that the purchases from traders, short-term purchases, and purchases from renewable sources shall not be taken into account while determining Pooled Cost of Power Purchase.”

2. Pursuant to the said Regulations, APEPDCL, APSPDCL and APCPDCL filed separate petitions on 31.12.2021, 03.01.2022, and 12.01.2022 respectively for approval of Pooled Cost of Power Purchase for FY 2020-21 to be considered for the FY 2021-22 (The computation sheets indicating the Pooled Cost of Power Purchase as filed by APEPDCL, APSPDCL and APCPDCL are attached as ANNEXURE-I, ANNEXURE-II, and ANNEXURE-III respectively).
3. The said petitions were admitted and taken on the record of the Commission as O.P.No. 14 of 2022 for APEPDCL, O.P.No.15 of 2022 for APSPDCL, and O.P.No.16 of 2022 for APCPDCL. Public Notices were hosted on the website of the Commission on 14.02.2022 in respect of said petitions inviting interested persons/stakeholders to send their views/objections/ suggestions on the said petitions to the Secretary of the Commission by 23.03.2022, i.e., the date of the public hearing. Further, it was informed in the Public Notices that the said petitions would be taken for public hearing at 11:00 AM on 23.03.2022 through the web, and interested persons/organisations desirous of being heard in person may appear before the Commission on the said date of the public hearing.
4. Despite hosting the Public Notices on the website of the Commission, no objections have been received on the petitions as of the date of the Public Hearing on 23.03.2022. Sri P. Shiva Rao, learned standing counsel for the petitioners was present during the Public Hearing.
5. Though APEPDCL, APSPDCL, and APCPDCL filed separate petitions, the Commission is required to determine a single Pooled Cost of Power Purchase by clubbing the power

purchases of the three DISCOMs in accordance with clause 6.2. (1) of the said Regulations. Therefore, the Commission has decided to issue a common order in the above petitions determining a single Pooled Cost of Power Purchase as described below by clubbing the power purchases of the three DISCOMs.

6. The Commission in the [order dated 30.03.2022 in O.P.No.122 of 2021, O.P.No. 123 of 2021 and O.P.No.124 of 2021](#) in the matter of Tariff determination for Retail Sale of Electricity during FY 2022-23 and True-up of Retail Supply Business for FY 2020-21 in respect of APEPDCL, APSPDCL, and APCPDCL respectively, determined the True-up of power purchase quantum and costs from various sources for FY 2020-21 for each DISCOM. Therefore, for arriving at the Pooled Cost of Power Purchase for FY 2020-21 to be considered for FY 2021-22, the Commission adopted the final power purchase quantities and costs determined from various sources in the above order after excluding the purchases based on the liquid fuel, purchases from traders, short-term purchases and purchases from renewable sources in accordance with clause 2(k) of Regulation 1 of 2017. Accordingly, the Commission computed the Pooled Cost of Power Purchase for FY 2020-21 to be considered for FY 2021-22 as Rs.4.60/kWh. The details of the calculation are shown in the ANNEXURE-IV.
7. The difference between the Provisional Pooled Cost of Power Purchase at Rs.3.741/kWh and the Pooled Cost of Power Purchase now determined in this Order shall be paid to the developers in six equal monthly instalments commencing from the billing month of June 2022 to facilitate the DISCOMs to make payments in a staggered manner rather than by a lump-sum payment to avoid any undue strain on the finances of the DISCOMs.

The Order is corrected and signed on this the 17th day of May, 2022.

Sd/-
Thakur Rama Singh
Member

Sd/-
Justice C.V. Nagarjuna Reddy
Chairman

Sd/-
P. Rajagopal Reddy
Member

ANNEXURE-1

276503/2021/CE-02-KRS-VJWD

APEDCL POOLED COST for the FY 2020-21 to be considered in FY 2021-22

Station	Energy (MU)	Amount (Rs.Crs.)			VC Rate/ kwh	FC Rate/ kwh	Avg. Rate/kwh
		Fixed Cost	Variable Cost	Total Cost			
CGS :							
NILCL Valluru Thermal Power	110.00	41.55	32.92	74.47	2.99	3.78	6.77
NLC -Stage - I	82.33	6.50	40.55	47.05	4.59	0.74	5.33
NLC -Stage - II	114.03	8.79	47.62	56.41	4.18	0.77	4.95
NPC (MAPS)	20.21	0	6.45	6.45	3.19	0.00	3.19
NPC (Kaiga Unit-I,II & III)	301.79	0	107.62	107.62	3.57	0.00	3.57
NLC Tamilnadu Power Ltd Stage-I	273.57	58.97	94.58	153.55	3.45	2.16	5.61
NLC NTPS (New Thermal Station)	57.87	11.84	13.89	25.73	2.40	2.05	4.45
NTPC NVVNL Bundled Power (Only COAL)	63.44	0	28.28	28.28	4.46	0.00	4.46
NTPC NSM Phase-II, Bundled Power (COAL)	650.40	0	284.02	284.02	4.37	0.00	4.37
CGS other than NTPC (1)	1679.64	127.65	655.93	783.58	3.91	0.76	4.67
NTPC (SR) Ramagundam St.I&II	663.65	52.29	176.70	228.99	2.66	0.79	3.45
NTPC (SR) Simadri Stage 1	964.05	114.67	292.38	407.05	3.03	1.19	4.22
NTPC (SR) Simadri Stage 2	427.81	77.13	122.57	199.70	2.87	1.80	4.67
NTPC (SR) Talcheru St.II	463.19	36.18	90.37	126.55	1.95	0.78	2.73
NTPC (SR) Ramagundam St.III	151.17	13.27	35.74	49.01	2.36	0.83	3.24
NTPC WR & NR Stations	0	-0.04	0.28	0.24			
NTPC Kudgi Stage-I (New Thermal Station)	161.08	93.58	51.52	145.1	3.20	5.81	9.01
Total NTPC (2)	2830.95	387.08	769.56	1156.64	2.72	1.37	4.09
Sub Total 3 (1+2)	4510.59	514.73	1425.49	1940.22	3.16	1.14	4.30
Less : surcharge	0	82.72	0	82.72			
A = CGS TOTAL	4510.59	432.01	1425.49	1857.50	3.16	0.96	4.12
SGS							
APGCL ST-I	13.43	2.80	3.22	6.02	2.40	2.08	4.48
APGCL ST-II	35.89	2.25	8.47	10.72	2.36	0.63	2.99
APGCL	2459.52	477.14	769.02	1246.16	3.13	1.94	5.07
Godavari Gas Power Plant (Now Own Source previously GVK-I)	225.16	9.04	52.17	61.21	2.32	0.40	2.72
Sub-Total SGS	2734.00	491.23	832.88	1324.11	3.05	1.80	4.84
APGenco :							
Dr.NTPS	1767.78	246.10	590.04	836.54	3.34	1.39	4.73
Dr.NTPS St.IV	982.35	102.47	309.44	411.91	3.15	1.04	4.19
RTPP-I	96.51	93.97	37.25	131.22	3.86	9.74	13.60
RTPP -ST II	274.00	91.54	105.76	197.30	3.86	3.34	7.20
RTPP -ST III	77.42	67.72	29.88	97.60	3.86	8.75	12.61
RTPP -ST IV	293.80	302.74	93.69	396.43	3.19	10.30	13.49
Sub-Total AP Genco-Thermal	3491.86	904.54	1166.06	2071.00	3.34	2.59	5.93
Hydel-AP Genco	1380.42	217.83	0	217.83	0.00	1.58	1.58
AP Genco FCA Claims	0	0	-53.50	-53.50			
AP Genco Total	4872.28	1122.37	1112.56	2235.33	2.28	2.30	4.59
B = SGS Total	7606.28	1613.60	1945.44	3559.44	2.56	2.12	4.68
IPPs:							
Thermal Powertech Corporation India (Sembcorp)	587.30	101.91	214.01	315.92	3.64	1.74	5.38
KSK	340.73	56.46	93.60	150.06	2.75	1.66	4.40
C = IPPs Sub Total	928.03	158.37	307.61	465.98	3.31	1.71	5.02
TOTAL (A+B+C)	13044.90	2203.98	3678.54	5882.92	2.82	1.69	4.51

ANNEXURE-II

APSPDCL POOLED COST for the FY 2020-21 to be considered for FY 2021-22							
Station	Energy (MU)	Amount (Rs.Crs.)			VC Rate/ kwh	FC Rate/ kwh	Avg. Rate/ kwh
		Fixed Cost	Variable Cost	Total Cost			
CGS							
NTPC (SR) Ramagundam St.I&II	740972850	583830718	1972855640	2556686358	2.66	0.79	3.45
NTPC (ER)- Farakka, kahalgaon & Talcher. I	0	0	0	0			
NTPC (SR) Simadri Stage 1	1076376373	1280321939	3263772087	4544094026	3.03	1.19	4.22
NTPC (SR) Simadri Stage 2	477656368	861181292	1380228602	2241409894	2.89	1.80	4.69
NTPC (SR) Talcheru St.II	517157124	403904453	1008984945	1412889398	1.95	0.78	2.73
NTPC (SR) Ramagundam St.III	168778923	148116179	399092815	547208994	2.36	0.88	3.24
NTPC Kudgi Stage-I (New Thermal Station)	179850035	1044853821	575215722	1620069543	3.20	5.81	9.01
NTPC WR & NR Stations	0	-459838	3082567	2622729	0.00	0.00	0.00
NTECL Valluru Thermal Power	122813042	463958566	367602053	831560620	2.99	3.78	6.77
NLC -Stage - I	98616717	72580672	466935097	539515769	4.73	0.74	5.47
NLC -Stage - II	127316642	98093137	545883916	643977053	4.29	0.77	5.06
NPC (MAPS)	22568925	0	71980561	71980561	3.19	0.00	3.19
NPC (Kaiga Unit-I,II & III)	336946571	0	1200862195	1200862195	3.56	0.00	3.56
NLC Tamilnadu Power Ltd Stage.1	305441497	658382361	1073502810	1731885171	3.51	2.16	5.67
NNTPS (New Project from 28.12.19)	64611809	132190245	155535033	287725277	2.41	2.05	4.45
CGS Sub Total	4239106875	5746953545	12485534044	18232487589	2.95	1.36	4.30
Less Surcharge		1073037664		1073037664			
Net CGS Total	4239106875	4673915881	12485534044	17159449225	2.95	1.10	4.05
SGS							
APGPCIL -Stage-I	14994394	31210881	35977400	67188280	2.40	2.08	4.48
APGPCIL -Stage -II	40068338	25122276	94559712	119681988	2.36	0.63	2.99
Sri Damodharam Sanjeevayya Power Station (Unit-I) APPDCL	1411114573	2660836993	4430899760	7091736753	3.14	1.89	5.03
Sri Damodharam Sanjeevayya Power Station (Unit-II) APPDCL	1334965244	2660836993	4191790867	6852627860	3.14	1.99	5.13
APPDCL Diff FC and FCA Claims FY20-21	0	5643950	-36554848	-30910898	0.00	0.00	0.00
Godavari Gas Power Plant (Now Own Source previously GVK-I)	251390682	100878130	582452542	683330672	2.32	0.40	2.72
SGS Sub Total	3052533231	5484529223	9299125432	14783654659	3.05	1.60	4.84
IPPs							
KSK	380428509	630434113	1045105220	1675539333	2.75	1.66	4.40
Thermal Powertech Corporation India	655727399	1137873408	2427768972	3565642379	3.70	1.74	5.44
IPP Sub Total	1036155908	1768307521	3472874192	5241181712	3.35	1.74	5.06
APGenco							
Dr.NTTPS	1973742948	2747776680	6592301446	9340078126	3.34	1.39	4.73
Dr.NTTPS St.IV	1096802559	1144128480	3454928061	4599056541	3.15	1.04	4.19
RTPP-I	107756950	1049134920	415941826	1465076746	3.86	9.74	13.60
RTPP-ST II	305921078	1022040120	1180855362	2202895482	3.86	3.34	7.20
RTPP -ST III	86436860	756066240	333646281	1089712521	3.86	8.75	12.61
RTPP -ST IV	328035530	3412607403	1039137615	4451745018	3.17	10.40	13.57
Sub-Total Thermal Power	3898695926	10131753843	13016810591	23148564434	3.34	2.60	5.94
Sub-Total Hydel Power	1541253193	2432102040	0	2432102040	0.00	1.58	1.58
Sub-Total Hydel Power	1541253193	2432102040	0	2432102040	0.00	1.58	1.58
AP Genco FCA Claims			-597310060	-597310060	0.00	0.00	0.00
APGENCO Sub Total	5439949118	12563855883	1241950053	24983356414	2.28	2.31	4.59
TOTAL	13767745133	24490608508	37672034198	62167642706	2.74	1.78	4.52

ANNEXURE-III

APCPDCL POOLED COST for the FY 2020-21 to be considered for FY 2021-22							
Station	Energy (MU)	Amount (Rs.Crs.)			VC Rate/kwh	FC Rate/kwh	Avg. Rate/kwh
		Fixed Cost	Variable Cost	Total Cost			
CGS							
NTPC (SR) Ramagundam St.I&II	427653470	336958679	1138636267	1475594946	2.66	0.79	3.45
NTPC (ER) - Farakka, kahalgaoan & Talcher.1	0	0	0	0			
NTPC (SR) Simadri Stage 1	621232061	738939517	1883690418	2622629935	3.03	1.19	4.22
NTPC (SR) Simadri Stage 2	275680016	497031933	812095401	1309127334	2.95	1.80	4.75
NTPC (SR) Talcheru St.II	298477925	233113995	582337008	815451003	1.95	0.78	2.73
NTPC (SR) Ramagundam St.III	97410981	85485451	230336951	315822402	2.36	0.88	3.24
NTPC Kudgi Stage-I (New Thermal Station)	103800688	603038778	331986522	935025300	3.20	5.81	9.01
NTPC WR & NR Stations	0	-265396	1779108	1513711	0.00	0.00	0.00
NTECL Vailur Thermal Power	70881711	267774306	212162016	479936322	2.99	3.78	6.77
NLC -Stage - I	56916770	41890031	270703679	312593711	4.76	0.74	5.49
NLC -Stage - II	73480970	56614585	316269096	372883681	4.80	0.77	5.07
NPC (MAPS)	13025685	0	41543677	41543677	3.19	0.00	3.19
NPC (Kaiga Unit-I, II & III)	194469163	0	692951155	692951155	3.56	0.00	3.56
NLC Tamilnadu Power Ltd Stage.I	176285968	379986259	625255507	1005241766	3.55	2.16	5.70
NNTPS (New Project from 28.12.19)	37290792	76293776	89583569	165877345	2.40	2.05	4.45
CGS Sub Total	2446606193	3316861918	7229330374	10546192286	2.95	1.86	4.31
Less Surcharge		561669714		561669714			
Net CGS Total	2446606193	2755192199	7229330374	9984522572	2.95	1.83	4.08
SGS							
APCPCL -Stage-I	8554034	18013401	20754404	38777806	2.40	2.08	4.48
APCPCL -Stage -II	23125495	14499355	54875264	69074619	2.36	0.63	2.99
Sri Damodharam Sanjeevayya Power Station (Unit-I) APPDCL	814426660	1535705623	2557299713	4093005336	3.14	1.89	5.03
Sri Damodharam Sanjeevayya Power Station (Unit-II) APPDCL	770476973	1535705623	2419297696	3955003320	3.14	1.99	5.13
APPDCL Diff FC and FCA Claims FY20-21	0	3267413	-21097680	-17840266	0.00	0.00	0.00
Godavari Gas Power Plant (Now Own Source previously GVK-I)	145090468	58221948	336163262	394385210	2.32	0.40	2.72
SGS Sub Total	1761773630	3165403365	5367002660	8532406025	3.05	1.80	4.84
IPPs							
KSK	219564822	363855890	603189873	967039763	2.75	1.66	4.40
Thermal Powertech Corporation India	378453944	656725157	1441073241	2097798398	3.81	1.74	5.54
IPP Sub Total	598018766	1020581047	2044257115	3064838162	3.42	1.71	5.12
APGenco							
Dr.NTTPS	1139148378	1585882980	3804755583	5390638563	3.34	1.39	4.73
Dr.NTTPS St.IV	633021062	660335280	1994016344	2654351624	3.15	1.04	4.19
RTPP-I	62192067	605506620	240061380	845571000	3.86	9.74	13.60
RTPP-ST II	176562759	589871820	681532249	1271404069	3.86	3.34	7.20
RTPP -ST III	49887149	436364640	192564397	628929037	3.86	8.75	12.61
RTPP -ST IV	189326144	1969590919	599739663	2569330582	3.17	10.40	13.57
Sub-Total Thermal Power	2250137559	5847555259	7512669615	13360224874	3.34	2.60	5.94
Sub-Total Hydel Power	889536338	1403690940	0	1403690940	0.00	1.58	1.58
Sub-Total Hydel Power	889536338	1403690940	0	1403690940	0.00	1.58	1.58
AP Genco FCA Claims	0	0	-344738299	-344738299	0.00	0.00	0.00
APGENCO Sub Total	3139673898	7251246199	7167931316	14419177515	2.28	2.31	4.59
TOTAL	7946072487	14192422809	21808521464	36000944274	2.74	1.79	4.53

ANNEXURE - IV**Pooled Cost of Power Purchase for FY 2020-21 (To be considered for FY 2021-22)**

Station	Total Energy Purchased (MU)	Total Fixed Cost	Total Variable Cost	Other Cost	Total Cost	Avg Rate/kWh Total
APGENCO (Thermal)						
Dr. NTPPS	4,880.67	679.47	1630.15	0	2,309.62	4.73
Dr. NTPPS-IV	2712.17	282.91	854.33	0	1,137.24	4.19
RTPP Stage-I	266.46	259.43	102.85	0	362.28	13.60
RTPP Stage-II	756.48	252.73	292	0	544.73	7.20
RTPP Stage-III	213.75	186.97	82.5	0	269.47	12.61
RTPP Stage-IV	811.17	840.96	257.57	0	1,098.53	13.54
APPDCL Stage-I	6,790.50	1315.94	2132.22	0	3,448.16	5.08
Total APGENCO (Thermal)	16,431.20	3818.41	5351.63	0	9,170.04	5.58
APGENCO Hydel						
Srisaillam RCPH	1104.48	219.76	0	0	219.76	1.99
NSRCPH	153.86	25.19	0	0	25.19	1.64
NSTPDC PH	0.44	8.58	0	0	8.58	195.00
Upper Sileru Power House	592.61	105.07	0	0	105.07	1.77
Lower Sileru Power House	508.66	67.65	0	0	67.65	1.33
Donkarayi Power House	844.96	94.75	0	0	94.75	1.12
Machkund AP Share	263.3	26.84	0	0	26.84	1.02
TB Dam AP Share	113.28	18.4	0	0	18.40	1.62
Total APGENCO Hydel	3581.59	566.24	0	0	566.24	1.58
CGS						
NTPC(SR) Ramagundam I & II	1832.27	144.37	487.85	0	632.22	3.45
NTPC(SR) Simhadri Stage-I	2661.66	316.59	807.13	0	1,123.72	4.22
NTPC(SR) Simhadri Stage-II	1181.15	212.95	341.8	0	554.75	4.70
NTPC(SR) Talcher Stage-II	1278.83	99.88	249.5	0	349.38	2.73
NTPC(SR) Ramagundam III	417.36	36.63	98.68	0	135.31	3.24
NTPC Kudgi Stage-I	444.73	258.37	142.24	0	400.61	9.01

NTECL Vallur	303.69	114.73	90.9	0	205.63	6.77
NLC Stage-I	243.87	17.95	114.31	0	132.26	5.42
NLC Stage-II	314.83	24.26	133.84	0	158.10	5.02
NPC(MAPS)	57.81	0	17.8	0	17.80	3.08
NPC(KAIGA unit I,II,III,IV)	833.21	0	297.01	0	297.01	3.56
NTPL(NLC TamilNadu)	755.3	162.81	264.46	0	427.27	5.66
NLC NNTPS	159.77	32.69	91.97	0	155.03	9.70
JNNSM Ph-1 Thermal	134.27	0	68.76	0	76.39	5.69
JNNSM Ph-2 Thermal	1376.58	0	591.16	0	591.16	4.29
Total CGS	11995.33	1421.23	3734.88	0	5,156.11	4.30
APGPCL						
APGPCL I	37.07	7.72	7.38	3.6	18.7	5.04
APGPCL II	99.09	6.21	19.86	9.46	35.53	3.59
Total APGPCL	136.16	13.93	27.24	13.06	54.23	3.98
IPPs - Gas						
Godavari Gas Power Plant	621.64	24.95	144.04	0	168.99	2.72
Total IPPs - Gas	621.64	24.95	144.04	0	168.99	2.72
IPPs - Others						
KSK Mahanadi (MT)	940.72	155.89	258.43	0	414.32	4.40
Thermal Power Tech	1621.48	281.37	508.8	0	790.17	4.87
HNPCL	1064.18	0	406.52	0	406.52	3.82
Total IPPs Others	3626.38	437.26	1173.75	0	1611.01	4.44
Total	36,392.30	6282.02	10431.54	13.06	16,726.62	4.60

Sd/-
Thakur Rama Singh
Member

Sd/-
Justice C.V. Nagarjuna Reddy
Chairman

Sd/-
P. Rajagopal Reddy
Member