

#### ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

4th Floor, Singareni Bhavan, Red Hills, Hyderabad 500 004

# FRIDAY, THE TWENTY NINTH DAY OF APRIL 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 2019-20 to be considered for FY 2020-21 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. 108 of 2021

Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)

O.P.No. 111 of 2021

Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)

### **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 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. In pursuant to the said Regulations, APSPDCL and APEPDCL filed separate petitions on 29.10.2021 and 30.10.2021 respectively for approval of Pooled Cost of Power Purchase for FY 2019-20 to be considered for the FY 2020-21. (The computation sheets indicating the Pooled Cost of Power Purchase as filed by APEPDCL and APSPDCL are attached as ANNEXURE-I and ANNEXURE-II respectively).
- 3. The said petition were admitted and taken on the record of the Commission as O.P.No. 108 of 2021 for APEPDCL, and O.P.No.111 of 2021 for APSPDCL. Public Notices were hosted on the website of the Commission on 23.11.2021 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 22.12.2021, 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 22.12.2021 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 were received as of the date of the first Public Hearing on 22.12.2021. Therefore, the Commission provided one more opportunity to the stakeholders for filing views/objections/ suggestions by hosting fresh Public Notices on the Commission's website and the next date of hearing was fixed for 02.02.2022. During the next hearing on 02.02.2022, Sri Vishal Gupta, learned counsel representing Indian Wind Power Association stated that as certain data relating to the power purchases was not available, he was unable to file his clients' objections. The Commission suggested to him to send an email to Sri P. Shiva Rao, learned standing counsel for the petitioners, on the details of data required to be furnished and posted the matter for

the next hearing on 16.03.2022. The final hearing of the matter took place on 16.03.2022. Sri P.Shiva Rao, learned standing counsel for the petitioners and Sri Vishal Gupta, learned counsel for some of the objectors, and Sri M.Venugopal Rao, objector were present during the final hearing. Sri Vishal Gupta, learned counsel, submitted that after going through the fillings of the petitioners, his clients did not find any particular defect or error in the calculation, and the commission may accordingly determine the Pooled Cost of Power Purchase. Sri M.Venugopal Rao, learned objector suggested that at least in the future, the Regulation may be amended so as to determine the Pooled Cost of Power Purchase in line with the present market prices.

- 5. Though APEPDCL and APSPDCL filed separate petitions, the Commission is required to determine a single Pooled Cost of Power Purchase by clubbing the power purchases of both the 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 both the DISCOMs.
- 6. The commission in the order dated 30.03.2022 in O.P.No.15 of 2021 and O.P.No 37 of 2021 in the matter of True-up of Retail Sale of Electricity for FY 2019-20 in respect of APEPDCL and APSPDCL respectively, determined the True-up of power purchase quantum and costs from various sources for FY 2019-20 for each DISCOM. Therefore, for arriving at the Pooled Cost of Power Purchase for FY 2019-20 to be considered for FY 2020-21, 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 2019-20 to be considered for FY 2020-21 as Rs.4.02/kWh. The details of the calculation are shown in the ANNEXURE-III.
- 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 May 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 29<sup>th</sup> day of April 2022.

Sd/-Thakur Rama Singh Member Sd/-Justice C.V. Nagarjuna Reddy Chairman Sd/-P. Rajagopal Reddy Member



## **ANNEXURE - I**

Station		A	nount (Rs.Cr	8.)	VC	Γ	
	Energy (MU)	Fixed Cost	Variable	Total Cost	Rate/kw	FC Rate/kwh	Avg. Rate/kv
CGS:			Cost	·	<u>h</u>		
NTECL Vature Thermal Power	128.89	58.12	40.57	107.70	2.05	1.51	
NLC -Stage - I	112.97		49.57				8.
NLC -Stage - II	195.40	8.56	30.61	39.17		0.76	3,
NPC (MAPS)	20.56		53.01	69.79			3.
NPC (Kaiga UnR-I,fl & III)	297.09	0.00	5.82	5.82	2.83		2.
NLC Temilinadu Power Ltd Stage.1	222.08	0.00	110.05		3.70	0.00	3.
NLC NNTPS (New Thermal Station)		46.49	85.75	112.24	2.96	2.09	5.
NTPC NVVNL Bundled Power (Only COAL)	9.51	1.71	2.18	3.90	2.30	1.80	4.
NTPC NSM Phase-II, Bundled Power (COAL	61.80	0.00	29.67	29.67	4.80	0.00	4.6
CGS other than NTPC (1)	1013.20	0.00	438.38	438.38	4.33	0.00	4.3
NTPC (SR) Remagundem St.I&II	2061.50	131.67	785.05	916.72	3.81	0.64	4.4
NTPC (SR) Simadri Stage 1	654.51	47.30	170.57	217.86	2.61	0.72	3.3
NTPC (SR) Simadri Stage 2	998.83	141.98	344.11	486.09	3.45	1.42	4.8
NTPC (SR) Telcheru SLII	398.27	73.74	133.75	207.48	3.36	1.85	5.2
	387.70	31.48	78.01	109.49	2.01	0.81	2.6
NTPC (SR) Ramagundam St.III	172.86	13.38	44.47	57.85	2.57	0.77	3.3
NTPC WR & NR Stations (Only for Sept 19)	109.30	24.09	41.01	65.10	3.75	2.20	5.9
NTPC Kudgi Stage-I (New Thermal Station)	251.25	110.80	94.58	205.38	3.76	4.41	8.1
Total NTPC (2)	2972.73	442.76	906.49	1349.25	3.05	1.49	4.5
Less : surcharge (3)							-
NTECL Valuru Thermal Power NTPC		-20.92	0.00	-20.92			
NTPC NSM Phase-II, Bundled Power (COA		-16.54	0.00	-16.54			
Total surcharge		0.00	0.00	0.00			
- Section of the sales green	0.00	-37.46	0.00	-37.46			
A = CGS TOTAL (1+2)	5034.22	536.98	1691.54	2228.52	3.36	1.07	4.4
APGPCL ST-I	9.39	0.98	3.19	4.16	3.40		
APGPCL ST-II	42.18	3.37	14.61	17.98	3.46	1.04	4.4
APPOCL.	2278.35	330.94	698.41	1029.35	3.07	1.45	4.2
Godavari Gas Power Plant (Now Own Source previously GVK-I)	215.08	8.89	63.46				4.5
APGenco:	/ > \	0.03	03.40	72.36	2.95	0.41	3.3
Dr NTTPS	2411.09	227.32	801.18	1028.50	2 22		
Dr.NTTPS St IV	1024.17	112.70	319.32	432.02	3.32	0.94	4.2
RTPP-I	417.51	87.36	158.87	246.23	3.81	2.09	4.2
RTPP-ST II	623.85	84.81	238.08	322.89	3.82		5.9
RTPP-ST (II	192.05	86.73	73.07	159.80	3.80	4.52	5.1
RTPP-ST N	754.36	25.72	289.43	315.15	3.84	0.34	8.3
Hydel	1205.72	206.60	0.00	206.60	0.00	1.71	4.1 1.7
GENCO RTPP Stage IV Suppl FC for 2019- 20	0.00	88.68	0.00	88.68			
APGENCO Sub Total	6628.75	919.93	1879.94	2799.87	2.84	1 20	
B = SGS Total	9173.75	1264.11	2659.61	3923.72	2.90	1.39 1.38	4.2
Thermal Powertech Corporation Ind	635.09	101.08	147.57	248.66	2.32	1.59	
Srivathsa	3.38	0.16	0.99	1.15	2.93	0.48	3.9
KSK	731.95	112.65	201.31	313.96	2.75	1,54	3.4 4.2
C = IPPs Sub Total	1370.41	213.89	349.87	563.77		1.56	4.1
TOTAL (A+B+C)	15578.39	2014.98	4701.03	6716.01	/ 3.02	1.29	4.3

# **ANNEXURE - II**

Station -	energy	. :	Variable	·	VC	-ic 1	
CGS (A)	(MU)	Frod Cost	Cost	Total Cost	Ratefish	Rate*wh	Rate's
NTECL Valluru Thermal Power							-
NLC -Stage - I	376 00		144 69	314.20	3.85	450	3 .
NLC -Stage - II	3,6 60	*74 QB	# # 80 32	114 30	271	0.76	3 4
NPC (MAPS)	570 1R	् नसः अत	154 GB	20169	271	0.90	3 9
	26 60	0.00	10 90	10,00	2.63	0.00	?
NEC (Kaiga Unit FILS III) NEC Tamilnadu Power Eld Stage 1	866 90	0.00	321 13	323.13	3.70	9.40	1
	648.03	. 135.66	_ 191.85	3027-51	2.90	2.36	٠,
NIC NNTPS (New Thornal Station)	27.75	5 00	6 37	11.38	2 30	1.80	
NIPC VERTEASE IT DUAL AT LOWER -	180 32	0 00	86 59	85 59	4.80	0.00	4
ICOSCI.	2956 53	0.00	1279 20	1279 20	4 33	6.65	4
CGS otherstan NIPQ(1)	6015.46	384 22	2290 78	2575 00	38;	0.64	4
NTPC (SS) Ramagundam St (8)	1909 86	138 02	497 71	635 73	2.61	6.72	3
NTPC (SR) Simadri Stage 1	2914 59	414 30	1004 10	1418 41	3 45	1 42	4
NTPC (SR) Simadri Stage 2	1162 16	215.16	390.27	605 43	3 36	36 ;	5
NTPC (SR) Talcheru St II	1131.30	91.85	227.63	319.49	2.01	0.81	2
NTPC (SR) Ramagundam St III	504.42	39.04	129.77	168 81	2.57	0 77	3
NTPC WR & NR Stations (Only for Sep'1	318.94	70.29	119 68	189 97	3.75	2 20	5
NTPC Kudgi Stage-I (New Thermal Statu	733.16	323 31	275 98	599 29	3.76	4 41	8
Total NTPC (2)	8674.43	1291.98	2645.14	3937.13	3.05	1 49	4
Less : surcharge					0.00	1	
NTECL Valluru Thermal Power		-48.28	0.00	-48.28			
NTPC		-61.07	0.00	-61.07			
NTPC NSM Phase-II, Bundled Power (C	OAL)	0.00	0.00	0.00	9		
Total surcharge (3)	0.00	-109.35	0.00	-109.35			
				4			
A = CGS TOTAL (1+2)	14689.89	1566.86	4935.92	6502.78	3.36	1.07	4.
APGPCL ST-I	27.41	2.85	9.31	12.15	3.40	1.04	4
APGPCL ST-II	123.09	9.84	42.62	52.46	3.46	0 80	
PPDCL	6648.22	965.68	2037.97	3003.65	3.07		4
odavan Gas Power Plant						1.45	4
Now Own Source previously GVK-I)	627.60	25.95	185.19	211.14	2.95	0 41	3
PGenco:							
I.NTTPS	7035.58	663.33	2337.84	3001.17	3.32	0 94	4
r.NTTPS St.IV	2988.52	328.86	931.76	1260.62	3.12	1 10	4
TPP-I	1218.30	254.92	463.58	718.50	3.81	2 09	5
TPP-ST II	1820.39	247.47	694.73	942.20	3 82	1 36	5
TPP -ST III	560.39	253.09	213.21	466.30	3 80	4 52	8
TPP -ST IV	2201.24	75.06	844.55	919.61	3 84	0 34	4
ydel	3518.31	602.87	0.00	602.87	0 00	1,71	1
ENCO RTPP Stage-IV Suppl FC for 019-20	0.00	258.77	0.00	258 77			
PGENCO Sub Total	19342.73	2684.37	5485.67	8170.04	2.84	1.39	4
- B = SGS Total	26769.05	3688.68	7760.75	11449.43	2.90	1.38	4
hermal Powertech Corporation India	1853.18	294.96	430.62	725.59	2.32	1 59	3
rivathsa	9.87	0.47	2.89	3.36	2 93	0 48	3
SK	2135.82	328.71	587 42	916.13	2.75	1 54	4
= IPPs Sub Total	3998.87	624.15	1020.94	1645.08	2.55	1.56	4.
OTAL (A+B+C)	45457.81	5879.69	13717.61	19597.30	3.02	1.29	4.

ANNEXURE - III

Pooled Cost of Power Purchase for FY 2019-20 (To be considered for FY 2020-21)

Station	Total Energy Purchased (MU)	Total Fixed Cost	Total Variable Cost	Other Cost	Total Cost	Avg Rate/ kwh Total
APGENCO-Thermal						
Dr. NTTPS Stage-I,II & III	7,704	756	2,214	0	2,970	3.86
Dr. NTTPS Stage-IV	3,160	339	834	0	1,174	3.71
RTPP Stage-I	1,488	287	495	0	782	5.25
RTPP Stage-II	1,433	277	492	0	769	5.37
RTPP Stage-III	495	265	168	0	433	8.76
RTPP Stage-IV	1,122	225	436	0	660	5.89
Total APGENCO-Thermal	15,402	2,149	4,639	0	6,788	4.41
APPDCL						
APPDCL Stage-I	9,173	1,034	2,498	0	3,532	3.85
Total APPDCL	9,173	1,034	2,498	0	3,532	3.85
APGENCO-Hydel	83					
Srisailam Right Bank Power House	885	205	0	0	205	2.32
Nagarjunasagar Right Canal Power House	111	22	0	0	22	1.99
Nagarjunasagar Tail Pond Power House(AP)	30	51	0	0	51	16.95
Upper Sileru Power House	674	72	0	0	72	1.07
Lower Sileru Power House	1,077	138	0	0	138	1.28
Donkarayi Canal Power House	81	7	0	0	7	0.93
Machkund Power House (AP Share)	327	37	0	0	37	1.12
Tungabhadra Dam Power House (AP Share)	119	25	0	0	25	2.09
Total APGENCO-Hydel	3,303	557	0	0	557	1.68
cgs						
NTPC(SR) Ramagundam I & II	655	139	431	0	570	8.71
NTPC(SR) Simhadri Stage-I	2,473	345	739	0	1,084	4.39
NTPC(SR) Simhadri Stage-II	896	206	267	0	473	5.28
NTPC(SR) Talcher Stage-II	1,194	89	190	0	279	2.34
NTPC(SR) Ramagundam- Stage-III	505	38	116	0	154	3.05
NTPC-Kudgi	357	319	133	0	452	12.64

Total	47,642	6,372	12,780	0	19,152	4.02
Total IPPs Others	5,212	701	1,396	0	2,097	4.02
HNPCL	942	0	360	0	360	3.82
Sembcorp Energy India Ltd (SEIL)	1,693	293	355	0	648	3.83
KSK Mahanadi (MT)	2,567	407	678	0	1,085	4.23
Srivathsa (Exclusive APEPDCL)	10	0	3	0	3	3.4
IPPs - Others	43					
Total Gas Power Plant	877	61	209	0	270	3.08
Godavari Gas Power P <mark>l</mark> ant	877	61	209	0	270	3.08
Gas Power Plant						
Total APGPCL	132	8	35	0	43	3.35
APGPCL II	101	6	27	0	34	3.31
APGPCL I	31	2	8	0	11	3.48
APGPCL	of GUL AS					
Total CGS	13,543	1,849	4,002	0	5,851	4.32
JNNSM Ph-2 Thermal	3,900	289	1,160	0	1,449	3.71
JNNSM Ph-1 Thermal	288	32	79	0	111	3.84
NLC- NNTPS	248	50	62	0	111	4.49
Tuticorin Thermal Power Station	805	139	205	0	344	4.27
NPC-KAIGA unit I,II,III,IV	832	0	254	0	254	3.05
NPC-MAPS	107	0	19	0	19	1.78
NLC TS-II Stage- II	455	45	128	0	173	3.8
NLC TS-II Stage- I	271	24	76	0	100	3.69
Vallur Thermal Power Plant	557	135	144	0	279	5

Sd/-Member

Sd/-Thakur Rama Singh Justice C.V. Nagarjuna Reddy P. Rajagopal Reddy Chairman

Sd/-Member