



TELANGANA STATE ELECTRICITY REGULATORY COMMISSION
5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500004

O.P.No.15 to 19 of 2021

Dated 06.08.2021

Present

Sri T. Sriranga Rao, Chairman
Sri M. D. Manohar Raju, Member (Technical)
Sri Bandaru Krishnaiah, Member (Finance)

In the matter of *Suo-Moto* approval of PPAs between TSDiscoms and TSGenco.

These came up for Public Hearing through virtual video conference before the stakeholders on 30.06.2021, and having stood over for consideration till this day, the Commission passed the following

COMMON ORDER

I. Background

1. Southern Power Distribution Company of Telangana Limited (TSSPDCL) on behalf of TSDiscoms viz., TSSPDCL and Northern Power Distribution Company of Telangana Limited (TSNPDCL), has requested for granting in-principal consent for purchase of power u/s 86 (1) (b) of the Electricity Act, 2003 in respect of the following thermal and hydel power projects pertaining to the Telangana State Generation Corporation Limited (TSGenco) for a period of 25 years from the Commercial Operation Date (CoD) of the Project duly enclosing the Power Purchase Agreements (PPAs) entered with TSGenco.

Sl. No	Letter No.	Dated	Project	PPA entered Date	TSDiscoms contention
1)	CGM(IPC&RAC)/SE(RAC)/F.TS Genco KTPS VII/D.No.05/18	03.04.2018	Kothagudem Thermal Power Station (KTPS)-VII	19.03.2018	The erstwhile Commission vide letter No.E-339/Dir-Engg/JD (P&PP)/D.No.822/2014-1, dated 23.08.2014 has returned the draft PPA signed between the then Discoms and Genco w.r.t. KTPS-VII stage (1x800 MW) on 22.01.2013 for want of essential information for determination of tariff which couldn't be attended. In light of the above, due to the bifurcation of the State, a fresh

Sl. No	Letter No.	Dated	Project	PPA entered Date	TSDiscoms contention
					PPA was entered on 19.03.2018.
2)	CGM(IPC&RAC)/SE(RAC)/F.Common PPA/D.No.706/19	26.09.2019	In respect of thermal and hydel stations commissioned between 1956 and 1998 stations pertaining to TSGenco which are exclusively located in the Telangana State viz., KTPS ABC, KTPS-V, Ramagundam Thermal Station (RTS)-B, Nagarjunasagar Hydro Electric Scheme (NSHES), Srisailem Left Bank Hydro Electric Scheme (SLBHES), Small Hydel, Mini Hydel.	17.09.2019	<p>The validity of the existing PPA signed by the then Discoms and Genco in respect of thermal and hydel stations commissioned between 1956 and 1998 has been expired by 31.03.2019.</p> <p>As such, new PPA has been signed by TSDiscoms with TSGenco in respect of the existing thermal and hydel stations pertaining to TSGenco which are exclusively located in the Telangana State. The validity of the PPA is different for different plants.</p> <p>Each unit of KTPS Stage A (60 MW), Stage B (120 MW) and Stage C (120 MW) were decommissioned as per the norms of CEA and the same were not included in the PPA.</p> <p>The terms and conditions of the PPAs were as per the prevailing TSERC Regulations and any changes in Regulations that may occur in further shall be made applicable for all operating norms and any other parameters. The tariff payable by TSDiscoms to TSGenco shall be as determined by the Commission.</p>
3)	CGM(IPC&RAC)/SE(RAC)/F.BT PS/D.No.707/19	26.09.2019	Bhadradi Theramal Power Station (BTPS)	17.09.2019	Upon approval from the Government of Telangana State (GoTS), TSGenco is setting up this power project and since the power project is being established wholly by the Generating Company of Government of Telangana State, TSDiscoms have entered PPAs with TSGenco in respect of this power project for purchasing 100% declared capacity and energy on long-term basis for a period of 25 years. The terms and

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					conditions of the PPAs were as per the prevailing TSERC Regulations and any changes in Regulations that may occur in further shall be made applicable for all operating norms and any other parameters. The tariff payable by TSDiscoms to TSGenco shall be as determined by the Commission.
4)	CGM(IPC& RAC)/SE(RAC)/F.TS Genco KTPP II/D.No.847 /19	15.11.2019	Kakatiya Thermal Power Project (KTPP)-II	27.01.2016	The erstwhile Commission vide its Order dated 11.08.2014 in O.P.Nos.14 to 25 of 2012 has returned the draft PPA signed by the then Discoms and Genco on 22.11.2010 for want of essential information for determination of tariff which couldn't be attended. In light of the above, due to the bifurcation of the State, a fresh PPA was entered on 27.01.2016.
5)	CGM(IPC& RAC)/SE(RAC)/F.YT PS/D.No.1 338/19	26.03.2020	Yadadri Thermal Power Station (YTPS)	11.03.2020	Upon approval from the Government of Telangana State (GoTS), TSGenco is setting up this power project and since the power project is being established wholly by the Generating Company of Government of Telangana State, TSDiscoms have entered PPAs with TSGenco in respect of this power projects for purchasing 100% declared capacity and energy on long-term basis for a period of 25 years. The terms and conditions of the PPAs were as per the prevailing TSERC Regulations and any changes in Regulations that may occur in further shall be made applicable for all operating norms and any other parameters. The tariff payable by TSDiscoms to TSGenco shall be as determined by the Commission.

^{**} The PPAs against Sl.No.1 and 4 were executed before the gazette notification of TSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 [Regulation No.1 of 2019]

II. Suo-Moto Proceedings

2. The Commission has taken the requests of TSDiscoms on record, examined with reference to the legality i.e., in the context of the provisions of the Electricity Act, 2003, Policy, provisions under applicable Regulations and sustainability of the clauses in the PPAs and decided to finalise the approval or consent of the PPAs through public consultation process and assigned the following PPA-wise Suo-Moto O.P.Nos.15 to 19 of 2021 as given below:

Sl. No.	Details of Power Station	Installed Capacity (MW)	PPA entered Date	Suo-Moto O.P.No.
1.	Kothagudem Thermal Power Station (KTPS) VII	800 (1x800)	19.03.2018	15 of 2021
2.	KTPS-ABC	420 (3x60+1x120+1x120)	17.09.2019	16 of 2021
3.	KTPS-V	500 (2x250)		
4.	Ramagundam Thermal Station (RTS-B)	62.5 (1x62.5)		
5.	Nagarjunasagar HES (Main power house & left canal)	875.6 (1x110+7x100.8+2x30)		
6.	Srisaillam LBHES	900 (6x150)		
7.	Small Hydel (Singur, Pochampad, Nizam Sagar & Palair HES)	54 (3x9+2x7.5+2x5+2x1)		
8.	Mini Hydel (Peddapalli HES)	9.16 (2x.5+2x.5+2x.5+3x.22+2x.32+2x.5+2x.5+3x.22+3x.23+2x.75)		
9.	BTPS	1080 (4x270)		
10.	KTPP II	600 (1x600)	27.01.2016	18 of 2021
11.	YTPS	4000 (5x800)	11.03.2020	19 of 2021

III. Regulatory provisions for approval or consent of PPA by the Commission

3. The following are the Regulatory provisions in the matter of approval or consent of PPA by the Commission in the subsequent paragraphs.

Section 86 (1) (b) of the Electricity Act, 2003 [Functions of State Commission]

- (b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State.

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Regulation No.1 of 2008

5 Approach to Determination of Tariff

5.1 ...

- 5.2 The provisions specified in Part - II of this Regulation shall apply in determining tariff based on capital cost for supply to a Distribution Licensee by:

- a. State-controlled/owned companies till such time as the Commission is satisfied that the situations is ripe to introduce competition; and
- b. one-time expansion of generating capacity of existing projects of private developers, not exceeding 50% of the capacity as on 06.01.2006 except in the following cases:
 - i) Where the PPA (power purchase agreement between the generating company and the distribution licensee) had been signed and approved by the Commission prior to 06.01.2006 of the PPA had been signed and was pending before the Commission on 06.01.2006;
 - ii) Where the appraisal of the project had started before 06.01.2006 by the relevant financial institutions for lending funds to the project on the basis of appropriate evidence of process of procurement of power by any distribution licensee. Provided that in all such cases final PPA is filed before the Commission by 30th September 2006.
 - iii) In case of hydro projects where detailed project report (DPR) has been submitted to the Central Electricity Authority/Central Water Commission before 01.04.2006 for concurrence (except for projects where concurrence of DPR is not mandatory) and appropriate evidence of process of procurement of power by any distribution licensee existed before 6-1-2006. Provided that in all such cases final PPA is filed before the Commission by 30th September 2006.

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Regulation No.1 of 2019

3. Applicability and General Principles

- 3.1 This Regulation shall apply in all cases where tariff for a Generating Station or a Unit thereof is required to be determined by the Commission under section 62 of the Act.
- 3.2 The Commission shall be guided by the Regulations contained herein for determining the tariff for supply of electricity by a Generating Entity to a Distribution Licensee in the following cases:
 - 3.2.1 where such tariff is pursuant to a power purchase agreement or arrangement entered into subsequent to the date of effectiveness of these Regulations; or
 - 3.2.2 where such tariff is pursuant to a power purchase agreement or arrangement entered into prior to the date of effectiveness of this Regulation and either the Commission has not previously approved such agreement/ arrangement or the agreement/ arrangement envisages that the tariff shall be based on the this TSERC Generation Tariff Regulations, 2019;

4.3 Determination of Tariff for Existing Generating Station

- 4.3.1. Where the Commission has, at any time prior to April 1, 2019, approved a power purchase agreement or arrangement between a Generating Entity and a Distribution Licensee or has adopted the Tariff contained therein for supply of electricity from an existing generating Unit/Station, then the Tariff for supply of electricity by such Generating Entity to the Distribution Licensee shall be in accordance with the Tariff mentioned in such power purchase agreement or arrangement for such period as so approved or adopted by the Commission.
- 4.3.2. Where, as on April 1, 2019, the power purchase agreement or arrangement between a Generating Entity and a Distribution Licensee for supply of electricity from an existing Generating Unit/Station or the tariff therein has not been

approved by the Commission, or where there is no power purchase agreement or arrangement, the supply of electricity by such Generating Entity to the Distribution Licensee after April 1, 2019 shall be in accordance with a power purchase agreement approved by the Commission.

Provided that the petition for approval of such power purchase agreement or arrangement shall be filed by the Distribution Licensee with the Commission within three months from the date of notification of these Regulations:

Provided further that the supply of electricity shall be allowed to continue under the present agreement or arrangement until such time as the Commission approves such power purchase agreement, and shall be discontinued forthwith if the Commission rejects it, for reasons to be recorded in writing.

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IV. Notification calling for objections/suggestions

4. The Commission issued the Public Notice on 05.06.2021 in two (2) English, two (2) Telugu and One (1) Urdu daily newspapers inviting the suggestions/objection/comments on the PPAs of TSDiscoms entered with TSGenco for procurement of power from TSGenco power projects from all the stakeholders and public at large on or before 18.06.2021 by 5 pm and also informing that in this regard the Commission shall conduct Public Hearing through virtual video conference on 24.06.2021 duly uploading the Public Notice and the copies of PPAs in the Commission's website.
5. Subsequently, based on the request from the stakeholders the date of public hearing scheduled on 24.06.2021 was rescheduled on 30.06.2021 and the same was also published on 12.06.2021 in two (2) English, two (2) Telugu and One (1) Urdu daily newspapers. The copies of the daily newspaper clippings of the initial Public Notice and its subsequent Public Notice are placed in Annexure-I.

V. Response to Public Notice

6. In response to the above Public Notice, objections/suggestions/comments have been received from three (3) stakeholders, the details of stakeholders are given in Annexure-II.
7. The TSDiscoms were directed to arrange their written replies to all the objectors and the copies of these replies were to be made available to the Commission also. The objections/suggestions/comments received and the replies of TSDiscoms were posted on the Commission's website.
8. The Commission sent the virtual link to all the stakeholders whoever have sent their objections/suggestion/comments and TSDiscoms & TSGenco officials for participation in Public Hearing through virtual video conference.

VI. Public Hearing

9. The Commission organised Public Hearing as per the revised schedule i.e., on 30.06.2021 at 11:30 am through virtual video conference. The Stakeholders who attended the Public Hearing are listed in Annexure-III. During the hearings, the TSSPDCL on behalf of TSDiscoms made a brief presentation about the

overall power sector scenario before and after formation of Telangana State, capacity addition and capacity addition in progress as given below:

Sl. No.	Description	At the time of Telangana State Formation [on 02.06.2014]	Current Status [as on 01.06.2021]	Percentage Increase	Measures taken to overcome severe power crises at the time of Telangana State formation
1)	Contracted Capacity (MW)	7,778	16,603	113%	<p>To overcome deficit in power demand at the time of Telangana State formation.</p> <p><u>Short-Term & Medium-Term Measures</u></p> <ul style="list-style-type: none"> ▪ Staggering of agriculture loads for 24x7 power for all; ▪ Power Purchase from exchange; ▪ Increase in Generation by TSGenco power plants; ▪ Entering short-term and medium-term PPAs; <p><u>Long-Term Measures</u></p> <p>Setting up of new plants by TSGenco;</p>
2)	Maximum Demand (MW)	5,661	13,688	141%	
3)	Maximum consumption in a day (MU)	128	283.38	121%	
4)	Per capita consumption (kWh)	1,200	2,071	72%	
5)	Power holiday to Industries	Two (2) days in a week	Nil	No power holiday in Telangana State	
6)	Load Relief (LR) to domestic consumers (hours)	Four (4) to eight (8) hours in a day	Nil 24x7 uninterrupted power supply to all categories of supply	No Load Relief	
7)	Supply to Agriculture consumers (hours)	Six (6) hours in two (2) spells in a day	24x7 uninterrupted power supply to agriculture sector	400%	
8)	Total number of consumers served (in crore)	1.11	1.61	45%	

10. The details of capacity addition after formation of Telangana State:

Sl. No.	Name of the Project	Capacity as on 02.06.2014 (MW)	Capacity addition after formation of Telangana State (MW)	Present Existing Capacity/ Status of the Project
1)	TSGenco Power Stations:			
	Thermal	2,282.50	2,210	4,492.50
	Hydel	2,070.60	360	2430.60
	Mini Hydel	11.16	0.00	11.16
	Solar	1.00	0.00	1
	Total TSGenco	4,365.26	2,570	6,935.26

Sl. No.	Name of the Project	Capacity as on 02.06.2014 (MW)	Capacity addition after formation of Telangana State (MW)	Present Existing Capacity/ Status of the Project
2)	Inter-State	76	Nil	76
3)	Joint Sector – Gas (APGPCL)	31	Nil	31
4)	Private Sector			
	a) Gas based Power Plants	926	Nil	926
	b) Sembcorp Energy India Limited-I (TS Share 53.89% of 500 MW)	269.45	Nil	269.45
	c) Sembcorp Energy India Limited-II	0	570	570
	d) NCE- RE Projects:			
	Solar	74	3,398	3,472
	Wind	0	128	128
	Other RE	163	33	196
5)	Singareni TPP (2x600 MW)	0	1,200	1,200
6)	Chattisgarh Power	0	1,000	1,000
7)	Central Generating Stations (CGS)	1,874	771	2,645
	Total Installed/Available Capacity	7,778	9,669	17,447
	Capacity addition in progress:			
a)	Bhadradi TPS (4x270 MW)		270	Unit-IV will be commission by Sep'21
b)	Yadadri TPS (5x800 MW)		4,000	COD by 2022-23
	Total Capacity Addition in progress by TSGenco		4,270	
c)	Capacity Addition in progress by Others:			
	Solar Power		2,092	COD by 2021-22
	NTPC (Phase-I: 2x800 MW)		1,600	PPA entered on 18.01.2016, COD of Unit 1 by May'22 and Unit 2 by Sep'22
	Share from CGS		351	By 2021-22
	Total		4,043	
	Grand Total of Capacity Addition in progress (MW)		8,313	

11. TSDiscoms also presented the following improvement in infrastructure after formation of Telangana State:

Sl. No.	Parameter Description	As on 02.06.2014	Commissioned after 02.06.2014	As on 01.06.2021
TSTransco Infrastructure				
i)	400 kV Substations (Nos)	6	15	21
ii)	220 kV Substations (Nos)	51	44	95
iii)	132 kV Substations (Nos)	176	65	241
iv)	Total EHT Substations (Nos)	233	124	357
v)	Total EHT line length (ckm)	16379	9771	26150
vi)	Transformation Capacity (MVA)	14973	22261	37234
TSDiscoms Infrastructure				
vii)	33 kV Substations (Nos)	2138	980	3118
viii)	Length of Lines [33 kV+11 kV+LT] (in lakh ckm)	4.89	1.55	6.44
ix)	No. of Power Transformers (PTRs)	3272	2282	5554
x)	No. of Distribution Transformers (DTRs) [Nos in lakh]	4.67	3.05	7.72
Consumer Date (including RESCO, Sircilla)				
xi)	Agricultural Services (in lakh)	19.03	6.34	25.37
xii)	Total Services existing (in lakh)	111	50	161

12. Subsequently, TSDiscoms elucidated their replies on the objections/suggestions/comments received from the stakeholders and then the Commission heard the stakeholders. At the end, as per the directions of the Commission, the TSDiscoms have responded to the issues raised by the objectors during the public hearing.
13. On the request of the stakeholders the Commission has permitted the stakeholders to submit their additional objections/suggestion/comments if any, as well as, TSDiscoms to submit their written submissions to the Commission.
14. The objections/suggestions/comments received on PPAs of TSDiscoms with TSGenco power projects have been dealt in the subsequent paragraphs while dealing with the issue/clause of the subject/PPA. The gist of objections/suggestions/ comments, replies given by TSDiscoms along with the view's and directions of the Commission, wherever required were also given at appropriate places.

Issue 1: Delay in seeking approval of PPAs

Stakeholder Comments

15. Section 62 and Section 86 (1) (b) of the Electricity Act 2003 empower the Commission to determine the tariff. Section 61 of the Act requires the Commission to specify the terms and conditions for such determination of tariff which is Regulation No.1 of 2019. All the PPAs were entered 5 years 6 months to 15 months ago. So, there is delay in filing a petition for seeking of approval for the PPAs, as they are mandated to do so by the Regulations. While the

Commission has the power to grant Suo-Moto approval there should be no such delay.

TSDiscoms' Replies

16. After signing of the following PPAs with TSGenco after formation of Telangana State, the letters for consent were addressed to the Commission as per section 86 (1) (b) of the Electricity Act 2003:

SI. No	Project	PPA entered Date	Letter addressed to TSERC for consent
1	KTPS VII	19.03.2018	03.04.2018
2	BTPS	17.09.2019	26.09.2019
3	Old Stations of TSGenco	17.09.2019	26.09.2019
3	YTPS	11.03.2020	26.03.2020
4	KTPP-II	27.01.2016	15.11.2019

17. With respect to KTPP-II, PPA was re-entered by TSDiscoms i.e., TSSPDCL & TSNPDCL and the Commission had determined provisional tariff vide Generation Tariff Order dated 05.07.2017 for the Control Period for 3rd control period i.e., from FY 2014-15 to FY 2018-19 and also in Retail Supply Tariff Order dated 27.03.2018 for FY 2018-19. Since, the tariff has been regulated by the Commission after following the due process i.e., by fulfilling its obligation under Section 62 of the Electricity Act, 2003 and Regulation No.1 of 2008, the erstwhile Commission in its Order dated 11.08.2014 in Suo Moto O.P.Nos.14 to 25 of 2012 specified that no formal consent to the PPA is necessary.

Commission's View

18. The Commission has reviewed all the PPAs in detail and examined with reference to the legality i.e., in the context of the provisions of the Electricity Act, 2003, Policy, provisions under applicable Regulations and sustainability of the clauses in the PPAs and decided to finalise the approval or consent of the PPAs through public consultation process by assigning the Suo-Moto O.P.Nos.15 to 19 of 2021 to individual PPAs.

Issue 2: Availability of Details on the Commission's Website

Stakeholder Comments

19. The Commission should upload PPAs and Petition on its website. If the TSDiscoms have submitted the proposal for consent of PPAs, the Commission should have made such proposal public by uploading along with copies of the PPAs on its website and decide to conduct public hearing. If the Commission has initiated proceeding based on the submission of TSDiscoms, it should not be Suo-Moto proceeding. The public notice specifies last date for receiving comment as 18.06.2021. This is contrary to the standard procedure being adopted for holding public hearings, the public notice has not asked the stakeholders to send copies of their submissions to the petitioners, i.e., TSDiscoms. Moreover, virtual public hearing is scheduled to be held on 24.06.2021, i.e., within five (5) days from the last date for submission of objections, etc., to the Commission. This approach is deficient for the following reasons, among others, such as:

- a) Unless submission of TSDiscoms is made public, and unless the Commission directs stakeholders to send copies of their submissions to TSDiscoms and the later to respond to the same, TSDiscoms would not respond to the submissions of the stakeholders.
- b) TSDiscoms and TSGenco have to participate in the public hearings and respond to the submissions of the stakeholders. In the public notice, no such indication has been specified.
- c) Having examined the PPAs, whether the Commission is satisfied with the information submitted by TSDiscoms for holding public hearing or whether it has sought further relevant information and clarifications from them is also not known. If further relevant information and clarifications has sought by the Commission and submitted by TSDiscoms, the same should be made public by uploading the same on the website of the Commission.
- d) Date of submission of PPAs and petition is not clearly specified. Despite our earlier requests to take up the PPAs one by one for public hearing to enable interested public to study the same and make submissions, the Commission has clubbed the PPAs of eleven (11) projects and decided to hold public hearing on the same together. Since, most of the projects are old and their CODs were already declared, taking the same on record of the Commission by giving the said O.P.Nos., shows that either submission of the PPAs is very much delayed, or the Commission has taken up the same for public hearing belatedly. In view of the same, the need and justification for holding public hearing on the PPAs in the manner as proposed in the said public notice is difficult to understand. The analysis of eleven (11) PPA and relevant information will take time.
- e) Without participation of the petitioner and respondent in the public hearing, and their responses to the submissions of stakeholders, there will be no transparency and accountability. Therefore, the Commission should direct them to participate in the public hearing, make their submissions, and respond to the submissions of stakeholders, as has been the standard and meaningful practice since the inception of ERCs.
- f) TSDiscoms have not sent their replies to the stakeholders and further replies of TSDiscoms were not available on the website of the Commission.

TSDiscoms' Replies

20. PPAs submitted to the Commission are in accordance with provisions of TSERC Regulations and in line with earlier PPAs approved by the then Commission.

Commission's View

21. Based on the request from the stakeholders the date of public hearing scheduled on 24.06.2021 was postponed to 30.06.2021 and the same was also published in two (2) English, two (2) Telugu and One (1) Urdu daily newspapers on 12.06.2021. The Commission has uploaded the copy of the Public Notice along with the PPAs in its website for perusal of the stakeholders to provide suggestions/ objection/comments. The Commission has also directed TSDiscoms to provide response to the stakeholders' suggestions/objection/

comments. The replies provided by TSDiscoms were uploaded on the website of the Commission. On the request of the stakeholders during the Public Hearing, the Commission has permitted the stakeholders to submit their additional objections/suggestion/comments if any, as well as, TSDiscoms to submit their written submissions to the Commission. The Commission has noted the comments of the stakeholder and shall endeavour to allocate appropriate timelines in its future Public Hearings.

Issue 3: Non-participation of parties in the proceedings

Stakeholder Comments

22. Participation of TSDiscoms and their response is necessary especially for inflated capital cost claimed by TSGenco. It is imperative on the part of TSDiscoms to express their concerns before the Commission in order to protect consumer interests. TSGenco did not submit any written submission on hearing of PPAs. The submissions of TSDiscoms that the Commission would decide as per Regulations and determine capital cost of projects after prudence check is no submission at all. The Commission takes its decisions after hearing all the stakeholders. The purpose of participation in the public hearings is to assist the Commission by analysing the issues, make constructive criticism, give suggestions and make requests. The kind of purposeful and meaningful approach what is expected from TSDiscoms is lacking in their presentation in this issue.

TSDiscoms' Replies

23. Both the TSDiscoms attended the public hearings held on 30.06.2021 on O.P.Nos.15 to 19 of 2021.

Commission's View

24. The Commission has noted the submission made by the stakeholders and TSDiscoms. The Commission issued public notice for seeking comments from all interested stakeholders and public at large on PPAs of TSDiscoms with TSGenco and it is the choice of individual stakeholder to submit suggestions/objection/comments. The Commission cannot insist any stakeholder to submit suggestions/objection/ comments. However, the representatives of TSGenco were expected to participate in this process to ensure transparency. The Commission is of the view that the better participation in the public consultation process would increase effectiveness of Regulatory system.

Issue 4: Necessity for Capacity Addition

Stakeholder Comments

25. Clause 2.1 of Guidelines for Load Forecasts, Resource Plan and Power Procurement Plan, issued by the then Commission on December 2006 and adopted by this Commission vide Regulation No.1 of 2014 mandate the Licensee to submit load forecast to the Commission consisting of a forecast of future energy for the next two Control Periods. The Licensees have to plan their power procurement based on these load forecasts. In accordance with the clause 4.1.1 of these guidelines, the power procurement of the Licensee shall be consistent with the detailed power procurement plan submitted by the Licensee to the Commission. The Licensee shall not enter into a PPA as

purchaser or solicit offers for supply of power until 60 days after it has notified the Commission of its proposed purchase. The PPA needs to be assessed against the load forecasts approved by the Commission. TSDiscoms have not prepared any load forecasts in accordance with these guidelines.

26. As per clause 4.1.2 of these guidelines, the Licensee shall follow guidelines issued by Ministry of Power (MoP) on 19.01.2005 in respect of procurement of power for a period of more than one (1) year. The procurement of power by the Licensee shall be based on either competitive bidding guidelines or based on least cost approach approved by the Commission. The Licensee shall describe the procurement procedure proposed to be adopted, including the steps to be taken to ensure that the purchase is made on the best possible terms. According to Tariff Policy, from January 2011 onwards power from TSGenco should also be procured through competitive bidding process. The power procurement from BTPS and YTPS is without any bidding process. Therefore, power procurement from BTPS and YTPS is arbitrary as well as unnecessary.
27. The submission of TSDiscoms that PPAs were entered considering future load growth, and the Commission will decide requirement of the same after prudence check is a simplistic approach of TSDiscoms to avoid substantiating and justifying the need for entering into PPAs to meet demand growth periodically with facts and figures.
28. It is gratifying to note the rapid strides made in the power sector after formation of Telangana State as explained in the presentation made by TSDiscoms in public hearing on 30.06.2021. The installed capacity in the State would reach 25,760 MW by FY 2022-23. Since, this generation capacity is very huge, justification for the same and examination of the same before giving consent to the new projects is imperative. The presentation of TSDiscoms lacked information relating to availability of power, demand surplus or demand deficit for the last two financial years and the first quarter of FY 2021-22, details of backed down surplus thermal power, if any, and fixed charges paid for the same and procurement of additional power from exchanges and short-term sources during the period of backing down. In the presentation, financial position of the power utilities at the time of formation of Telangana State and at present time was also missing.

TSDiscoms' Replies

29. Precarious electric power situation had prevailed in Telangana State immediately after its formation i.e., on 02.06.2014. TSDiscoms and TSGenco initiated steps to overcome the power crisis by taking measures under short-term and long-term. Considering the State's power demand and shortage of gas availability, MoP has considered thermal capacity addition under State sector, wherein the capacity addition of KTPS-VII, BTPS and YTPS was considered. Clause 5.2 of Tariff Policy, 2016 has provided an exemption of power procurement through competitive bidding from State generators and it stipulates to buy power from State owned generators at the tariff fixed by the Commission.

Commission's View

30. The Commission appreciates the timely measures taken by TSDiscoms and TSGenco to overcome severe power crises prevailing at the time just after formation of Telangana State and further steps taken including infrastructure development for 24x7 quality and reliable power supply for all categories of supply as explained in the presentation made by TSDiscoms in public hearing held on 30.06.2021.
31. The reliable power system operation requires constant balancing of supply and demand in accordance with prescribed operating criteria such as maintaining system voltages and frequency within acceptable limits. Thermal, Hydro and Renewable mix power development assume more significance to maintain the State Electricity Grid within IEGC prescribed limit of 49.85 Hz to 50.05 Hz. The Commission has observed that as per CEA reports, the peak power demand of the Telangana State has increased from 6755 MW in FY 2014-15 to 13,688 MW in FY 2020-21. During this period, the energy requirement has grown from 39,866 MU to 67,696 MU. Thus, the peak power demand and energy requirement have increased at Compound Annual Growth Rate (CAGR) of 12.49% and 12.60%, respectively, from FY 2014-15 till FY 2020-21.
32. The Commission has observed that in the 19th Electric Power Survey report (EPS) brought by CEA, it has been forecasted that the maximum demand (MW) and energy requirement (MU) for Telangana State to increase from 14,499 MW and 84,603 MU by FY 2021-22 to the level of 18,653 MW and 1,04,345 MU by FY 2026-27.
33. As per the EPS report, power demand for the Telangana State is forecasted to grow by 4.29% which is considerably lower than 12.49% actual growth in power demand for the past years. Increase in power demand in upcoming years is mainly due to the ambitious Lift Irrigation Projects being implemented in the Telangana State and GoTS policy of 24x7 uninterrupted power for all categories of supply including agriculture sector. The Commission while approving the Transmission Charges and SLDC Charges for the MYT Period from FY 2019-20 to FY 2023-24 in Orders dated 20.03.2020 and 02.03.2020 respectively, has considered the generation capacity of approximately 17,900 MW including open access generation (excluding renewable generation) for FY 2021-22, which is broadly sufficient to meet the present existing power demand and energy requirement. The energy not met and peaking deficit for the period since formation of Telangana State as per CEA LGBR report is as given below:

Sl. No.	Year	Energy Requirement	Energy Supplied	Energy not Supplied	in %	Peak Demand	Peak Met	Peak Demand not Met	in %
1	2014-15	43337	40644	2693	6.21%	7884	6755	1129	14.32%
2	2015-16	50254	49948	306	0.61%	6854	6849	5	0.07%
3	2016-17	53029	53017	12	0.02%	9187	9187	0	0.00%
4	2017-18	60318	60237	81	0.13%	10298	10284	14	0.14%
5	2018-19	66489	66427	62	0.09%	10815	10815	0	0.00%
6	2019-20	68306	68303	3	0.00%	13168	13168	0	0.00%
7	2020-21	66998	67694	4	0.00%	13688	13688	0	0.00%
8	2021-22 till Jun'21	16517	16516	1	0.00%	13595	13595	0	0.00%

34. Installed capacity in Telangana State for the period from the formation year of Telangana State i.e., from FY 2014-15 to FY 2019-20 as per CEA report is as given below:

Year	Owner ship/ Sector	Thermal Mode wise breakup					Nuclear	Hydro	RES (MNRE)	Grand Total
		Thermal								
		Coal	Lignite	Gas	Diesel	Total				
2014-15	State	3606.59	0.00	0.00	0.00	3606.59	0.00	2012.54	0.00	5619.13
	Private	270.00	0.00	1697.75	19.83	1987.58	0.00	0.00	61.25	2048.83
	Central	1653.28	0.00	0.00	0.00	1653.28	148.62	0.00	0.00	1801.90
	Total	5529.87	0.00	1697.75	19.83	7247.45	148.62	2012.54	61.25	9469.86
2015-16	State	3606.59	0.00	0.00	0.00	3606.59	0.00	2012.54	0.00	5619.13
	Private	270.00	0.00	1697.75	19.83	1987.58	0.00	0.00	61.25	2048.83
	Central	1653.28	0.00	0.00	0.00	1653.28	148.62	0.00	0.00	1801.90
	Total	5529.87	0.00	1697.75	19.83	7247.45	148.62	2012.54	61.25	9469.86
2016-17	State	5082.50	0.00	0.00	0.00	5082.50	0.00	2449.93	40.22	7572.65
	Private	839.45	0.00	950.88	0.00	1790.33	0.00	0.00	3609.30	5399.63
	Central	1956.12	0.00	0.00	0.00	1956.12	148.73	0.00	10.00	2114.85
	Total	7878.07	0.00	950.88	0.00	8828.95	148.73	2449.93	3659.52	15087.13
2017-18	State	5082.50	0.00	0.00	0.00	5082.50	0.00	2449.93	40.22	7572.65
	Private	839.45	0.00	950.88	0.00	1790.33	0.00	0.00	3609.30	5399.63
	Central	1956.12	0.00	0.00	0.00	1956.12	148.73	0.00	10.00	2114.85
	Total	7878.07	149.27	950.88	0.00	8828.95	148.73	2449.93	3659.52	15087.13
2018-19	State	5582.50	0.00	0.00	0.00	5582.50	0.00	2479.93	41.22	8103.65
	Private	839.45	0.00	831.82	0.00	1671.27	0.00	0.00	3936.44	5607.71
	Central	1806.85	149.27	0.00	0.00	1956.12	148.73	0.00	10.00	2114.85
	Total	8228.80	149.27	831.82	0.00	9209.89	148.73	2479.93	3987.66	15826.21
2019-20	State	5162.50	0.00	0.00	0.00	5162.50	0.00	2479.93	41.22	7683.65
	Private	1389.45	0.00	831.82	0.00	2221.27	0.00	0.00	3973.60	6194.87
	Central	1806.85	179.92	0.00	0.00	1986.77	148.73	0.00	10.00	2145.50
	Total	8358.80	179.92	831.82	0.00	9370.54	148.73	2479.93	4024.82	16024.02
2020-21	State	5972.50	0.00	0.00	0.00	5972.50	0.00	2479.93	41.22	8493.65
	Private	1389.45	0.00	831.82	0.00	2221.27	0.00	0.00	4326.77	6548.04
	Central	1806.85	210.57	0.00	0.00	2017.42	148.73	0.00	10.00	2176.15
	Total	9168.80	210.57	831.82	0.00	10211.19	148.73	2479.93	4377.99	17217.84
2021-22 till Jun'21	State	5972.50	0.00	0.00	0.00	5972.50	0.00	2479.93	41.22	8493.65
	Private	1389.45	0.00	831.82	0.00	2221.27	0.00	0.00	4338.25	6559.52
	Central	1806.85	210.57	0.00	0.00	2017.42	148.73	0.00	10.00	2176.15
	Total	9168.80	210.57	831.82	0.00	10211.19	148.73	2479.93	4389.47	17229.32

35. This signifies that the Telangana State is predominantly a Thermal Power State with a good backing of Hydro power. Further, Telangana State is also a Renewable Rich State having installed capacity based on Renewable Energy Source more than 3000 MW (4,389.47 MW). Whereas, the RE capacity not only has low Plant Load Factor (PLF) or Capacity Utilization Factor (CUF) around 20%, but is also not available during electricity peak demand hours. The Solar power is not available during the peak demand hours and the wind is available only during the season [Apr-Sep months]. Thus, the RE power contributes lesser towards meeting the energy requirement during the peak load demand. On the other hand, during day-time it meets most of the agriculture demand and offset the second peak demand which is occurring during day-time between 8:00 hours and 9:00 hours.

Capacity Additions

36. As per TSDiscoms presentation during the Public Hearing held on 30.06.2021, the total capacity addition in progress is 8,313 MW (refer para 9, page 10).

Retirement of Units

37. Further, Kothagudem Thermal Power Station (KTPS) ABC stations (KTPS O&M) [4x60+2x120+2x120=720 MW] i.e., 8 thermal units with a total installed capacity of 720 MW has been closed on 31.03.2021. Further, TSDiscoms vide Lr.No.CGM(IPC&RAC)/SE/RAC/F.NTPC&NLC/D.No.417/21, dated 7.7.2021 has informed that TSDiscoms have decided for relinquishing the TS Share from NTPC Ramagundam Super Thermal Power Station I&II [346.71 MW] and from NLC Thermal Power Station Stage I&II [182.20 MW], as the life of these stations have completed more than 25 years and the landed cost of the above projects are at higher side compared to procurement of energy by operating the State Generating Plants at higher PLF or from market purchases. In addition, in the National Electricity Plan (NEP) (Volume I) Generation, GoI, MoP, CEA January 2018, KTPS-V stage Unit 9 & 10 [2x250=500 MW] project has been listed in Projects considered for retirement in Telangana State as per new environmental norms (thermal station units without space for FGD installation and shall attain age of =>25 years on 1/1/2022) as on August,2017). In addition, as reported by the TSDiscoms the following are the details of expiry of existing PPAs before FY 2024-25.

Sl. No.	Type	Generating Station/ Source	Installed Capacity (MW)	TS Share	Type of Generator	PPA signed date	Expiry of PPA
1)	Long-Term	RTS-B	62.5	62.5	Thermal	17.09.2019	31.03.2024
2)	Long-Term	Talcher-II	2000	215	Thermal	13.08.2015	05.04.2023
3)	Long-Term	Sembcorp	1320	570	Thermal	18.02.2016	29.03.2024
4)	Medium-Term	PTC India Ltd.		550	Thermal	27.10.2018	30.09.2021

Spinning Reserve

38. The National Electricity Policy, 2005 stipulates a Spinning Reserve requirement of 5% to overcome energy and peaking shortages. Spinning reserve is used to balance the synchronous system both up and downwards. Hydropower supports the dynamic behaviour of the grid operation.
39. By considering ever growing peak demand & energy requirement, present installed capacity, capacity additions in progress, retirement of thermal units and 5% spinning reserve, there is dearth for additional power projects based on Thermal, Hydro and Renewable mix to derive timely benefits. It is thus clear that an increase in generating capacity is essential in order to reduce the shortfall of electrical power and to meet the present and future agricultural power demand as well as other developmental activities in the Telangana State. Therefore, the Commission opines that the need for procurement of power by TSDiscoms from TSGenco Power Projects through the envisaged PPAs is justified. The power generated from Power Projects will help in bridging the gap between electrical power demand and availability for the Telangana State.
40. **The Commission directs TSDiscoms to submit Power Procurement Plan as per the Commission's Guidelines issued on Load Forecasts, Resource Plans and Power Procurement for approval of the Commission.**

Issue 5: Protection of Consumers Interest

Stakeholder Comments

41. There are deficiencies in the terms and conditions of PPAs which fail to protect the interest of TSDiscoms and PPA contains one-sided provisions to ensure undue benefit to TSGenco at the cost of TSDiscoms. The omission in the terms and conditions of the PPAs need to be corrected by applying applicable Regulations at the time of taking up the projects concerned for their execution by the developer and in their operation later during the period of PPAs. Also, present Regulations should not be applied to them with retrospective effect.
42. PPA should be judged fundamentally from three angles: (a) need for purchasing power from the project concerned for the period specified to meet demand growth, (b) cost effectiveness and various options available to get power at the lowest possible or competitive tariff (In given circumstances, various options are available for selecting generator/supplier of power) and (c) propriety and legality of provisions in the PPA and their adverse impact on tariffs to be paid by the consumers. Even for projects selected through the process of competitive bidding, all these requirements need to be met. It is all the more imperative in the present case, because power from TSGenco's projects is being purchased by TSDiscoms straight away entering into PPAs, without adopting any competitive bidding for selecting the same, and even without getting consents of the Commission.

TSDiscoms' Replies

43. These are standard PPAs as per terms and conditions approved by erstwhile APERC and adopted by TSERC vide Regulation No.1 of 2014. After issuance of Regulation No.1 of 2019, the applicable Regulations have been considered for the PPAs entered for the new projects i.e., BTPS and YTPS. For existing PPAs entered prior to the notification of Regulation No.1 of 2019, the present Regulations has not been applied with retrospective effect.
44. As regards judgement of PPA, the PPAs have been entered considering the future load growth of 8% in addition to Lift Irrigation loads of Kaleswaram, Palmuru, Rangareddy, Sitaram Projects and 24x7 pocwer supply to agriculture pump sets. If PPAs are entered into with generators of other State instead of the generators of State of Telangana, the PoC charges would be burden on TSDiscoms which would be eventually passed on to the consumers. Also, PoC charges are increasing every year in view of concessions given to Renewable Energy. Moreover, the clause 5.2 of Tariff Policy, 2016 has given exemption of power procurement through competitive bidding from State generators and stipulates to buy power from State owned generators at the tariff fixed by the Commission.

Commission's View

45. The Commission is in agreement with the response of the TSDiscoms. Further the Commission has examined all the PPAs in detail and examined with reference to the legality i.e., in the context of the provisions of the Electricity Act, 2003, Policy, provisions under applicable Regulations and sustainability of the clauses as detailed in the subsequent paragraphs.

Issue 6: Definition of Declared Capacity

Relevant Provisions in PAAs

46. The following are the relevant clauses in PPAs

Clause	
1.1	Acceptance Test for establishing the capacity of the unit: Acceptance test for establishing the capacity of the unit shall be performed in the presence of TSDiscoms representatives and on satisfying the capacity of the unit, the capital cost of the project shall be arrived t on pro-rata basis against the rated capacity
1.15	Declared Capacity (or “DC”): Declared Capacity in relation to a Generating Station means, the capability of deliver ex-bus electricity in MW declared by such Generating Station in relation to any Time-Block of the Day as defined in the Grid Code or whole of the Day, duly taking into account the availability of fuel or water, and subject to further qualification in relevant Regulation.

Stakeholder Comments

47. Declared Capacity (DC), defined in Article 1.15 of PPA, should include DC shall be within the range of $\pm 10\%$ of the contracted capacity. If DC after the Installed Capacity Test is lower than the contracted capacity the capital cost of the project shall be reduced to that extent.

TSDiscoms’ Replies

48. Declared Capacity defined in the clause No.1.15 of PPA is in line with the clause 2.27 of Regulation No.1 of 2019.

Commission’s View

49. The Commission is in agreement with the TSDiscoms with regard to the definition of Declared Capacity as they are in line with the definition given in the applicable Regulation at that time of execution of the PPA. Further, the Commission while determining the tariff, will approve the capital cost for all the plants after due process of regulatory provisions and prudence check.

Issue 7: Capital Cost

Relevant Provisions in PAAs

50. The following are the relevant clauses in PPAs:

Sl. No.	PPA date/ O.P. No.	Clause
1)	19.03.2018 15 of 2021	<p>1.3 Additional Capitalisation: means the capital expenditure actually incurred after cut-off date and admitted by the commission after prudence check.</p> <p>3.2.2 Capital Cost: The provisional capital cost of the project shall be taken as Rs.5548.44 crores as per Annexure-I and the complete capital cost of project shall be admitted subject to approval of TSERC.</p> <p>3.9 Sale of Infirm Power: Treatment to the infirm power shall be in accordance with the provisions of TSERC (Deviation Settlement Mechanism and Related Matter) Regulations as and when specified by the Commission: Provided that any revenue earned by the Generating Entity from supply of Infirm power after accounting for the fuel expenses shall be adjusted towards reduction in the capital cost based on provisional claims made.</p>

Sl. No.	PPA date/ O.P. No.	Clause
		<i>Provided also that the start-up power drawn by the Generating Station from the Grid shall be adjusted with ex-bus energy and such energy shall be billed to its Beneficiaries in the proportion of contracted capacities.</i>
2)	17.09.2019 17 of 2021	1.4 Additional Capitalisation: means the capital expenditure actually incurred after cut-off date and admitted by the commission after prudence check. 3.2.2 Capital Cost: The provisional capital cost of the project shall be taken as Rs.8536.98 crores as per Annexure-I and the complete capital cost of project shall be admitted subject to approval of TSERC.
3)	27.01.2016 18 of 2021	1.4 Additional Capitalisation: means the capital expenditure actually incurred after cut-off date and admitted by the commission after prudence check. 3.2.2 Capital Cost: The provisional capital cost of the project shall be taken as Rs.4334.11 crores as per Annexure-I and the complete capital cost of project shall be admitted subject to approval of TSERC.
4)	11.03.2020 19 of 2021	1.3 Additional Capitalisation: means the capital expenditure actually incurred after cut-off date and admitted by the commission after prudence check. 3.2.2 Capital Cost: The provisional capital cost of the project shall be taken as Rs.29965.48 crores as per Annexure-I and the complete capital cost of project shall be admitted subject to approval of TSERC. 3.8 Sale of Infirm Power: Treatment to the infirm power shall be in accordance with the provisions of TSERC (Deviation Settlement Mechanism and Related Matter) Regulations as and when specified by the Commission: <i>Provided that any revenue earned by the Generating Entity from supply of Infirm power after accounting for the fuel expenses shall be adjusted towards reduction in the capital cost based on provisional claims made.</i> <i>Provided also that the start-up power drawn by the Generating Station from the Grid shall be adjusted with ex-bus energy and such energy shall be billed to its Beneficiaries in the proportion of contracted capacities.</i>

Annexure I of PPA for KTPS-VII (1x800 MW) [O.P.No.15 of 2021] -Cost Estimates

S. No.	Description	Amount (Rs. Crore)
1	Steam Generator, Turbine & Generator with Auxiliaries	1950.00
2	Balance of Plant	382.50
3	Initial Spares	92.40
4	Civil Works	1133.00
5	Erection, Testing & Commissioning @ 10% of Equipment Cost	231.00
6	Contingency	39.62
7	Establishment Costs	60.00
8	Consultancy & Engineering	11.38
9	Start-up fuel	6.60
10	Operator Training	1.00
11	Freight & Insurance	128.12

S. No.	Description	Amount (Rs. Crore)
12	Taxes & Duties	656.03
13	IDC & Financing Expenses	644.36
14	Non-Plant civil works (like Project offices, construction quarters, CSR development charges)	22.19
15	Site Development	30.00
16	Margin Money	160.25
Total Project Completion Cost		5548.44

Note: The Project cost indicated above is only tentative and final project cost shall be determined after completion of COD of project. The final project cost approved by TSERC will be taken in to account for tariff computation purposes.

Annexure I of PPA for BTPS (4x270 MW) [O.P.No.17 of 2021] -Cost Estimates

Sl. No.	Description	Amount (Rs. Crore)
A	Supply-EPC	
	I. Mechanical including mandatory spares	2720.00
	II. Electrical & Instrumentation including mandatory spares	379.50
	III. Total (EPC Supply) (I+II)	3099.50
	IV. Initial Spares (Excluding FGD) (EPC Supply)	0.00
	V. Excise Duty/CST/GST of EPC Supply	447.10
	Total EPC Supply including Taxes & Duties	3546.60
B	Erection, Testing & Commissioning	
	1. E&C Works	392.26
	2. Freight & Insurance	69.32
	3. Service Tax/GST of (1) & (2)	90.25
	Total Erection, Testing & Commissioning including Taxes	551.83
	Total EPC (Supply + Services) (A+B)	4098.43
C	FGD (including unloading, ETC, Freight, Insurance & GST)	680.00
D	Additional Electrical (including GST)	12.55
E	Civil Works (EPC)	1476.03
	Grand Total EPC (Supply + Services + Civil) (A+B+C+D+E)	6267.01
	Non-EPC (E&M)	
F	Railway Marshalling Yard	70.00
G	Cost of Start-up power/Construction power	10.00
H	Raw water intake pipeline, Booster Pump, etc.	15.00
I	Total Non-EPC	95.00
J	Others	
	a. contingency	30.00
	b. Establishment Cost	70.00
	c. Consultancy & Engineering Services	12.00
	d. Start-up fuel	100.00
	e. Operators training	3.00
	Total (Others)	215.00
K	Civil Works – Non EPC	1167.12
L	Total IDC	792.85
Grand Total (A+B+C+D+E+I+J+K+L) Project Cost including IDC		8536.98

Note: The Project cost indicated above is only tentative and final project cost shall be determined after completion of COD of Station. The final project cost approved by TSERC will be taken in to account for tariff computation purposes.

Annexure I of PPA for KTPP-II (1x600 MW) [O.P.No.18 of 2021] -Cost Estimates

S. No.	Description	Latest revised Project Cost (Rs. Crore)
1	BTG Package	1525.00
2	BOP Including Civil works on EPC basis	723.00
3	Conveyor from pit hear mine	105.00

S. No.	Description	Latest revised Project Cost (Rs. Crore)
4	Other Civil works (Quarters, Development charges, Preliminary Investigation)	120.00
5	Spares	48.75
6	Establishment & Consultancy	90.00
7	Operator Training	1.00
8	Start-up fuel	6.00
9	Contingency & Overheads	74.36
10	Raw Water Pipeline	207.00
11	Railway track for coal handing	175.00
12	Additional Coal Handling plant including Track Hopper	218.00
13	IDC & FC	850.00
14	Wet ash Handling system	17.00
15	Cost of Land towards Ash Pond and R&R Package	91.00
16	Cost towards further raising of ash pond & construction of new ash pond at Kothapally (V) for KTPP Stage-I & II	83.00
Total Project Completion Cost		4334.11

Note: The Project cost indicated above is only tentative and final project cost shall be determined after completion of COD of project. The final project cost approved by TSERC will be taken in to account for tariff purposes.

Annexure I of PPA for YTPP (5x800 MW) [O.P.No.19 of 2021] -Cost Estimates

Sl. No.	Description	Latest revised Project Cost (Rs. Crore)
1	Land & R&R Issue	845.00
2	Steam Generator, Turbine and Generator and auxiliaries	7900.00
3	Balance of Plant	
	i) Mechanical	4087.30
	ii) Electrical & C&I	740.50
4	Sub Total of Equipment Cost (Sl.No.2+3(i)+3(ii))	12727.80
5	GST @ 18% of Sl.No.4	2291.00
6	Initial Spares	305.47
7	GST @ 18% of Sl.No.6	54.98
8	Equipment cost including spares (Sl.No.4+6)	13033.27
9	Equipment Cost including duties, taxes & Spares (Sl.No.5+7+8)	15379.26
10	Freight & Insurance on Sl.No.4	256.26
11	Freight & Insurance on Sl.No.6	6.91
12	Total equipment cost including Freight & Insurance (Sl.No.9+10+11)	15642.43
13	GST @ 18% of Sl.No.10	46.13
14	GST @ 18% of Sl.No.11	1.24
15	Unloading at site, site handling, Erection, Testing & Commissioning	1716.99
16	GST @ 18% of Sl.No.15	309.06
17	Civil Works	5057.50
18	GST @ 18% of Sl.No.17	910.35
19	Total Works Cost (Sl.No.13+14+15+16+17+18)	8041.27
20	Contingency @ 2.5% of Total works i.e., Sl.No.19	201.03
21	Sub-Total – EPC & Non-EPC Cost (Sl.No.9+12+19+20)	24729.73
22	Establishment cost including headquarter charges @ 3% of Sl.No.21	741.89
23	Consultancy & Engineering	40.00
24	Start-up Fuel	50.00
25	Operator Training	6.00
26	Total Hard Cost (Sl.No.21+22+23+24+25)	25567.62
27	IDC & Financing Cost	
	i) Financing expenses @ 0.05% of Sl.No.21	12.36
	ii) Interest During Construction	4265.63

Sl. No.	Description	Latest revised Project Cost (Rs. Crore)
28	CSR @ 0.4% of Total Project cost	119.86
29	Total Project cost including IDC & FC (Sl.No.26+27(i)+27(ii)+28)	29965.48

Note: The Project cost indicated above is only tentative and final project cost shall be determined after completion of COD of Station. The final project cost approved by TSERC will be taken in to account for tariff computation purposes.

Stakeholder Comments

51. Considering the capital cost specified in the PPA, it has been found that the capital costs of projects are getting inflated mainly on account of delay in their execution due to various reasons.
52. In the PPA dated 17.09.2019 pertaining to thermal and hydel stations commissioned between year 1956 to year 1998, three thermal projects with the total installed capacity of 982.50 MW and eight hydel power stations with the total installed capacity of 1838.76 MW are covered. Capital cost and fixed charges of all old plants need to be considered after taking into account the depreciation based on their CODs considering terms and conditions specified in their PPAs.
53. For some of these projects, TSGenco has claimed additional capital cost and tariff based on such inflated capital cost, in Petition in O.P No.5 and 6 of 2021. The Petitioner will make claims for further increase in capital cost, and resultant increase in tariffs and true-up claim. Such exorbitant cost, if permitted by the Commission, would impact interests of consumers. Such high costs need to be examined considering the PPA of respective stations. The Commission should consider clause 10.8 of Regulation No.1 of 2008 wherever applicable while approving the capital cost of the generating stations.
54. The comparison of inflated capital costs of the projects of TSGenco with capital cost of NTPC is not appropriate. Also, comparison of inflated capital cost with NTPC project by TSGenco is justifiable but submitting such comparison by TSDiscoms is not appropriate. The projects are supposed to be executed in time and at permissible capital costs. TSDiscoms could not analyse and submit to the Commission permissible and impermissible items in the claims of TSGenco in terms of original estimated capital cost of each project, delay in execution of the project exceeding the scheduled period of time, resultant need for taking into account various factors, etc., as per Regulations. In other words, TSDiscoms' submission on this issue is unwarranted, and it is against their own interests and interest of consumers.
55. TSDiscoms entered into PPA with TSGenco dated 17.09.2019 for purchase of power from BTPS station, while scheduled COD was March 2017. The PPA was signed two and half years after scheduled COD. The PPA has come before the Commission for approval after commencement of power generation, which is violation of guidelines. Therefore, the Commission should do prudence check before approving the capital cost.
56. As regards YTPS PPA, the PPA was signed on 11.03.2020 while scheduled COD was October 2020. The PPA was signed just six months before the

scheduled COD. Further, financial closure for this project was achieved on 11.08.2015 and declared zero date was 17.09.2017. Ideally PPA should have been placed before the Commission before the zero date. Power procurement from YTPS is being done in violation of policies and guidelines designed for transparent and competitive power procurement.

57. As per Article 3.2.2 of BTPS PPA, capital cost of BTPS is Rs.8536.98 crore, i.e., Rs.7.90 crore per MW, which is higher than per MW capital cost of YTPS. The capital cost of YTPS is Rs.29965.48 crore, i.e., Rs.7.49 crore per MW. Considering the per MW benchmark cost of CERC with December 2011 price as base, capital cost of BTPS is higher by 71.37% to 35.28% while capital cost of YTPS is higher by 46.58% to 31.40%.
58. The capital cost of BTPS should be in the range of Rs.4.61 crore to Rs.5.84 crore per MW. The Punjab State Electricity Regulatory Commission (PSERC) in its Order dated 17.01.2020 in Petition No.54 of 2017 set the capital cost of Goindwal Saheb Thermal Power Plant (2x270 MW) set up by GVK Power at Rs.3058.37 crore with capital cost of Rs.5.66 crore per MW. Compared to this, the per MW capital cost of BTPS as proposed by TSGenco is higher by 39.58%. This plant is comparable to BTPS in terms of capacity of the power plant units as well as period of erection/ operation.
59. EPC accounts for 73.41% of the capital cost of BTPS, which includes cost of Boiler, Turbine and Generator (BTG) and Balance of Plant (BoP) works. It was reported that machinery meant for a thermal plant in north India was redirected to BTPS plant by BHEL. In such circumstances, the BTG supplied by BHEL may have to be treated as a second hand. The BTG machinery should have been obtained at a considerably lower price.
60. TSGenco has claimed Rs.12,728 crore towards BTG and BoP works which accounts for 42.48% of the capital cost of YTPS. Contractors for these works were not selected through competitive bidding process. Therefore, the Commission should allow these costs after prudence check. Since, contractors of BTPS and YTPS were not selected through competitive bidding process, the Commission should do stringent prudence check before approving the capital cost of such projects.
61. For YTPS, TSGenco claimed Rs.845 crore towards land and R&R, Rs.1,716.99 crore towards unloading at site, site handling, erection, testing & commissioning, Rs.5,057.50 crore towards civil works and Rs.201 crore towards contingency without any justification. Further, an expense of Rs.741.89 crore is claimed toward establishment cost which should have been covered under civil works. Annual establishment costs including personnel costs would be covered under annual Operation & Maintenance (O&M) costs. The Commission should not allow this expenditure.
62. TSGenco claimed Rs.110 crore under start up power and start up fuel for BTPS, while for YTPS with an installed capacity of 4000 MW, claimed start-up fuel cost is Rs.50 crore. Thus, in comparison with YTPS, claimed start-up fuel cost for BTPS is nearly ten times higher. Further, as per clause 8 of Regulation No.1 of 2019, the revenue earned by the generating entity from supply of infirm power

after accounting for the fuel expenses shall be adjusted in the capital cost and also similar provisions have been specified in the Article 3.9 of PPA of BTPS and Article 3.8 of PPA of YTPS.

63. For BTPS, TSGenco claimed Rs.1167 crore towards non-EPC civil works. This accounts for nearly 14% of the plant's capital cost without any justification. Therefore, the Commission should perform prudence check of non-EPC civil.
64. The consumers should get full benefit of the Liquidated Damages (LDs) recovered from the contractors/suppliers of the generating entity and the insurance proceeds, if any, to reduce the capital cost.
65. TSGenco claimed Rs.119.86 crore towards Corporate Social Responsibility (CSR) for YTPS. Expenditure towards CSR are to be met from profits earned by the entities in the previous years. Expenditure towards CSR cannot be part of capital cost of the project.

TSDiscoms' Replies

66. The Commission while determining the capital cost of the project, will compare with similar projects executed in the same period and the benchmark costs and standard timelines for prudence check. The Commission will also see the comparison of per MW cost for similar projects of NTPC, i.e., Lara STPS, Gadarwara STPP, Khargone, and TnSTPP-Ph-1.
67. The capital cost and other cost shall be allowed based on Regulations is computed as per Regulation No.1 of 2019.
68. Clause 7.19.1 of Regulation No.1 of 2019 stipulate to allow additional capitalization covered within the original scope of works, after the COD and up-to the Cut-off date. It is not correct to allege that capital costs are inflated.
69. The delay in some of the projects is due to the court cases filed against environmental clearances. The Commission provisionally approved the capital cost of KTHP-II, LKHES and PKHES stations in its Generation Tariff Order (GTO) dated 05.06.2017. Further, the Commission treated some of the works as capital works in progress. For KTHP-V, the R&M works have been carried out to improve the generation & efficiency of the plant.
70. As regards the submission of PPA of BTPS and its capital cost, the power procurement from BTPS is as per Tariff Policy, 2016, wherein there is an exemption for power procurement through competitive bidding process from the State generators. The PPA entered between TSGenco and TSDiscoms for sale of power from BTPS was signed on 17.09.2019 and sent to the Commission for consent on 26.09.2019.
71. BTPS is green field project and the project cost includes marshalling yard, township, hospital, project hostel, raw water intake system from Godavari river, etc. For every thermal project, the gestation period and capital cost varies from time to time because of several factors. Also, the project is inclusive of FGD installation which is mandatory as per revised environmental norms specified by MoEF&CC.

72. Further, the capital cost of BTPS is within CERC benchmark per MW hard cost with December 2011 indices as base issued vide Order dated 4.6.2012 and escalated thereon. The benchmark hard cost of CERC does not include expenditure towards MGR, railway siding, etc. The project cost indicated as in annexure of PPA is tentative, the final project cost is determined after completion of COD of the station. The final project cost approved by the Commission will be considered for tariff computation.
73. TSGenco has entered a MoU with M/s BHEL for construction of BTPS on EPC basis (both BTG and BOP) including design, engineering, manufacture, supply, erection, testing and commissioning. BHEL is a Maharathna Central PSU and has expertise in establishment of thermal power stations across the Country and also is the sole manufacturer of BTG in the Government Sector. The Commission will determine the capital cost which includes EPC cost of BTPS after prudence check based on the benchmark norms specified from time to time.
74. The start-up fuel cost has been estimated considering the requirement of fuel for testing and commissioning activities for all the four units which includes chemical cleaning, steam blowing, steam dumping etc. However, actual expenditure for start-up fuel only will be allowed. As regards supply of infirm power, it will be as per clause 8 of Regulation No.1 of 2019.
75. The non-EPC Civil cost is inclusive of works of marshalling yard, township, raw water in-take system and the same is included in the project cost.

Commission's View

76. As mentioned in the PPAs, the indicated provisional Capital cost is only tentative and final project cost shall be determined after completion of COD of project. The Commission while determining the tariff, will approve the capital cost for all new plants after due process of regulatory provisions and prudence check. Further, TSGenco has submitted petitions before the Commission in O.P. Nos.5 and 6 of 2021 & I.A.No.1 of 2021 for approval of true-up for FY 2014-15 to FY 2018-19, determination of capital cost for new stations, approval of Business Plan, Capital Investment Plan, Aggregate Revenue Requirement (ARR) and Multi Year Tariff (MYT) for FY 2019-20 to FY 2023-24. The Commission is in the process of issuing the Generation Tariff Order against the referred petitions. The issues related to the capital cost will be discussed in detail in the said Order.

Issue 8: Interest During Construction

Stakeholder Comments

77. Articles 1.11 and 1.12 of PPA of BTPS and YTPS define COD of the project. But COD is not specified in the PPA. It is important for computation of Interest During Construction (IDC).
78. TSGenco claimed IDC of Rs.792.85 crore and Rs.4,265.63 crore for BTPS and YTPS, respectively, which accounts for nearly 10% and 14.24% respectively of the plant's capital cost. IDC should be limited to scheduled COD date only and delay beyond this date should not be considered. BTPS units were supposed

to be in operation by FY 2016-17, following the strictures of the Central Government Agencies for adopting sub-critical technology. Scheduled COD of the first unit of BTPS was March 2017. Despite these strictures, COD of the first unit of BTPS was declared on 05.06.2020 and second unit on 07.12.2020. Further, YTPS units were supposed to be in operation by October 2020. Recent reports indicate that these units will start power generation only in 2023. These delays happen due to inefficient execution of the plant. Therefore, IDC due to these delays should not be allowed.

79. As per the CEA report, there was considerable delay in the commissioning of BTPS units and YTPS units. Also, the FGD for the BTPS station is also likely to get delayed as no agency has been finalized yet. Delays in FGD construction may further delay operations of the unit. Due to such delays, the impact of IDC on costs should be scrutinized. IDC beyond the scheduled COD should not be allowed.
80. The Commission considered the Hon'ble ATE's Judgment in Appeal No.72 of 2010 in its Order dated 19.06.2017 in O.P.No.9 of 2016 which emphasizes that the entire cost due to time over run has to be borne by generator if factors causing delay is attributable to the generating company. Therefore, as the delay in execution of the plant was due to inefficiencies of the generator, all costs due to time over run has to be borne by TSGenco and same shall not be passed on to TSDiscoms. As regards the cost due to time over run, the Commission should also consider the provisions specified in clause 7.22.4 of Regulation No.1 of 2019. Since, no Force Majeure instance like natural calamity has impacted the project site of BTPS and YTPS, the delay in execution of the project is entirely due to mismanagement of the project by TSGenco including in awarding the project to BHEL without any competitive bidding. Therefore, entire cost due to time over run has to be borne by the generating entity.

TSDiscoms' Replies

81. The clauses of the PPAs are standard and approved by the Commission in past PPAs. The COD for the individual units of BTPS shall be arrived from the zero date as per the investment approval depending on the capacity of the plant based on the Regulations. Computation of IDC is based on the Regulations applicable from time to time. The time schedule of the projects depending on the capacity of the plant is as per the Regulations and the declaration of the unit-wise COD of the plant is arrived from the zero date of the project. As per clause 1.11 of the PPA, COD of the project means the Commercial Operation Date of the last unit of the project.
82. As regards IDC, all works of BTPS were suspended from 14.12.2015 to 30.03.2017 (15½ months) as per the Hon'ble National Green Tribunal (NGT) directions. The MoEF&CC, Govt of India, vide notification dated 07.12.2015 has revised the emission norms of thermal power plants. To comply with the new norms, additional works were necessitated and many of the drawings and plot plans were to be revised. The constructions work also was severely affected during rainy season from 2017 to 2020. Further, the works of BTPS were adversely affected due to COVID-19 as lockdown was imposed by the Government. Upon resumption of the site works, the works could not progress at the required pace, due to acute shortage of manpower as most of the

available workers at site left and other available workers were unwilling to work due to COVID-19. Despite the hurdles, Units-I, II & III of BTPS were commissioned in 05.06.2020, 07.12.2020 and 26.03.2021 respectively. The Unit-IV boiler light up has been completed and the balance activities for synchronization and COD are in progress. Further regarding FGD, the order was placed on BHEL and engineering under progress for FGD system. The loans for the project are sanctioned separately for main project and FGD system from PFC. The Commission will determine capital cost, financing plan, IDC, cost and time over run as per the prevalent Regulation.

83. It is not correct to allege that there is delay in execution of the projects. After formation of Telangana State all efforts are being made to complete the project as per schedule. KTPS-VII stage has declared COD within a period of 48 months. The delay in BTPS project is due to court cases filed in various courts.

Commission's View

84. The Commission shall determine the IDC of TSGenco power stations after prudence check as per the provisions of Regulation No.1 of 2019 and also examine the causes for delay while approving the Capital Cost of TSGenco stations.

Issue 9: Incorporating Provisions for Delay in Commissioning

Stakeholder Comments

85. The PPAs do not contain time schedule for completion of the projects and declaration of their unit-wise COD. Liquidated damages to be paid by the developer of projects to TSDiscoms for delay in execution of the projects are not available in the terms and conditions of the PPAs. Since, projects of TSGenco have been intended to supply power solely to TSDiscoms, there is absolutely no justification in signing and submitting PPAs belatedly for the consideration of the Commission. If the Commission disallows impermissible components of capital cost, including additional IDC, of the projects for the failures towards delayed commissioning and omission by the developer, as per Regulations applicable during that period, to that extent that will prevent imposition of unjustified burdens on TSDiscoms and consumers ultimately. At the same time, if penalties are not imposed on and collected from the generator for failures to generate and supply power to TSDiscoms in permissible time, it will do injustice to TSDiscoms and consumers.
86. Due to delay in execution of the projects, if the developer fails to generate and supply power to TSDiscoms, the latter would be constrained to purchase power from other sources in the market leading to imposition of additional burdens on consumers of power. That is the reason why TSDiscoms should be compensated for the additional burdens arising out of the failure of the developer to execute projects in time, generate and supply power to TSDiscoms. The contention that it would lead to imposition of dual burdens on the developer in the form of disallowing impermissible components of capital cost, on one hand, and imposition of penalties on the developer, on the other, is untenable. By disallowing impermissible components of capital costs of the projects, the developer is made to suffer losses for their failures of commissioning and omission on its part.

87. For TSDiscoms and their consumers of power, it is just a legitimate protection from imposing unjustified and avoidable burdens in the form of impermissible and inflated capital cost, including additional IDC during the periods of delay, and avoidable long-term burdens in the form of higher tariffs. It does not compensate them for the additional cost they have to bear for purchasing power in the market due to failure of the developer in executing projects on time and generating & supplying power to TSDiscoms during the period of impermissible delay. For compensating TSDiscoms for such additional cost in power purchase during that period, penalties need to be imposed and collected from the developer.
88. Thus, PPAs should be signed in time by TSDiscoms and the developer and submitted to the Commission for consideration and approval. When TSGenco takes three to four years for implementation of projects, there is absolutely no justification in not signing PPAs and submitting the same for the consideration of the Commission well in time, preferably at the time of starting implementation of the projects. Simply because TSGenco is a company of the State Government, it should not be allowed to escape from its accountability at the cost of TSDiscoms. An effective regulatory process should encompass such provisions in the applicable Regulations which should be implemented strictly. Moreover, commissioning of the projects and their timing should be in consonance with requirement of power by TSDiscoms and demand periodically. Without such time schedules, declaring CODs is unrealistic presumption. Therefore, timely implementation of the projects will benefit the developer as well as TSDiscoms and consumers.

TSDiscoms' Replies

89. TSDiscoms signed PPAs with TSGenco before declaration of COD. TSGenco's plants are being taken up exclusively to meet demand of TSDiscoms. TSDiscoms submitted the details of all projects to the Commission in the ARR filings and the Commission has issued Retail Supply Tariff Order duly considering all projects.
90. Normally in the PPAs, the time schedule for the completion of the project and declaration of their unit-wise COD are not indicated. Such information is also not specified in the PPAs of central generating stations i.e., NTPC and NLC and other State generating stations.
91. The time schedule of the projects depending on the capacity of the plant is as per the Regulations and the declaration of the unit-wise COD of the plant is arrived on the zero date of the project. Hence, capital cost is not affected from date of signing the PPA and submission by TSDiscoms to Commission for consent.
92. The Commission shall determine the capital cost and tariff after prudence check based on the benchmark norms specified from time to time. While determining the capital cost or tariff of the project, the Commission shall scrutinize the reasonableness of the capital expenditure, financing plan, IDC, use of efficient technology, cost overrun due to delay in execution of the project, time overrun, and such other matters considered appropriate. Signing of the PPAs are not done belatedly, after signing the PPA, TSDiscoms have submitted same to the

Commission for approval of in principle consent as per section 86 (1) (b) of Electricity Act 2003. For BTPS, the PPA has been entered on 17.09.2019 and the consent letter was addressed to Commission for consent on 26.09.2019 and for YTPS, PPA was signed on 11.03.2020 a letter was addressed to the Commission for consent on 26.03.2020.

93. After formation of Telangana State all efforts are being made to complete the project as per schedule. KTPS-VII stage has declared COD within a period of 48 months. The delay in BTPS project is due to court cases filed in various Courts.

Commission’s View

94. The Commission has taken note of the submissions made by stakeholders and TSDiscoms. The issue on delay in execution of projects shall be considered by the Commission while approving capital cost of the project after prudence check as per the provisions of Regulation No.1 of 2019.

Issue 10: Provision of Escrow

Relevant Provisions in PAAs

95. The relevant clauses in PPA are as given below:

PPA date O.P. No.	Clause
17.09.2019 17 of 2021	<p>3.13 Payment Mechanism: The bills shall be presented to the designated officer of TSDiscoms for payments. Payments by TSDiscoms for the bills raised by TSGenco shall be made within 60 days through Letter of Credit (LC) or through NEFT/RTGS.A revolving Letter of Credit (LC) to be opened in favour of TSGenco to cover one-month receivables valid for the term of the PPA. All LC charges shall be to TSDiscoms account. TSDiscoms shall open an escrow account, to cover one month receivables valid for the tenure of the PPA a per the procedure indicated in the Annexure-VI.</p>
	<p style="text-align: center;">Annexure VI</p> <p>To provide additional security to the TSGenco for the TSDiscom’s obligation hereunder, TSDiscoms shall also open an escrow account with any of the scheduled banks which account shall be maintained by such bank as an agent for the TSGenco, and which shall be pledged as security to the TSGenco and its lenders for payment of all sums due to the TSGenco by TSDiscoms under this agreement as further set forth herein. Such account shall be opened on or before the date thirty (30) days prior to the effective date. Such account shall be funded with revenues from payments due to TSDiscoms from consumers to be deposited in such escrow account aggregating an amount equal to the L.C. amount. Such instruction shall be irrevocable during the term of this agreement. TSDiscoms shall not act in any manner as may negatively affect the inflow of the revenues into this account and shall take such steps as may be necessary to assure the flow of the specified level of revenues in such account (including adding or substituting consumers and undertaking collection efforts) during the term of this agreement.</p> <p>Provided that TSDiscoms, in compliance with its obligations under this agreement with respect to payment of all sums when due to the TSGenco, through the letter of credit or otherwise TSDiscoms shall be entitled to withdraw funds from the escrow account each month to be used for such purposes as the TSDiscoms may designate. In the event of TSDiscoms failure to pay any sums due to the TSGenco on the due date of payment through the Letter of Credit or otherwise, when any sum is due to the TSGenco, or in case of non-renewal of the letter of credit, the TSGenco, by notice in writing to the bank holding the escrow account, may require such bank not to honour any of</p>

PPA date O.P. No.	Clause
	cheques, hundies and requisition presented to it by or on behalf of TSDiscoms or any other drawls on the account until after the claim of the TSGenco is first discharged.
11.03.2020 19 of 2021	<p>3.12 Payment Mechanism:</p> <p>I</p> <ul style="list-style-type: none"> a) The bills shall be presented to the designated officer of TSDiscoms for Payments. Payments by TSDiscoms for the bills raised by TSGenco shall be made within 60 days through Letter of Credit (LC). b) A revolving Letter of Credit (LC) to be opened in favour of TSGenco to cover one-month receivables, subject to review of value of bills each year on 1st April. c) LC shall be valid for the term of the PPA by Renewing/ Revalidating /Opening New LC in place of existing LC. d) LC charges in relation to opening, operation and maintenance shall be to TSDiscoms account. <p>II Escrow Account</p> <ul style="list-style-type: none"> a) In addition, TSDiscoms shall open an Escrow account by entering Escrow Agreement with a Nationalised Bank (for the entire period of PPA) thirty (30) days prior to effective date, to cover one (1) month receivables valid for the tenure of the PPA as a backup to the Letter of credit. b) TSDiscoms shall cause all receipts of TSDiscoms arising from Sale of Power (Both LT & HT) to be deposited in Escrow account aggregating to an amount not less than the L.C. amount. c) Such instruction shall be irrevocable during the term of this agreement. TSDiscoms shall not act in any manner as may negatively affect the inflow of the revenues into this account and shall take such steps as may be necessary to assure the flow of the specified level of revenues in such account during the term of this agreement. d) In the event of TSDiscoms failure to pay any sums due to TSGenco on the due date of payment through the Letter of Credit or otherwise, when any sum is due to TSGenco, or in case of non-renewal of the letter of credit, TSGenco by notice in writing to the bank holding the Escrow account, may require such bank not to honour any of cheques, hundies and requisition presented to it by or on behalf of TSDiscoms or any other drawls on the account until after the claim of TSGenco is first discharged. e) This arrangement shall continue parallely with LC for the entire period of the Power Purchase Agreement.

Stakeholder Comments

96. Annexure VI of the PPA of BTPS and Article 3.12. II of PPA of YTPS stipulate for opening an escrow account. While Article 3.13 of the PPA of BTPS and Article 3.12. I of the PPA of YTPS has already provided for a revolving Letter of Credit (LC). As PPA has already provided for LC for payment mechanism, provision for additional security in the form of escrow account will add an expenditure to TSDiscoms.
97. Opening of LC and escrow are unwarranted, as one of these accounts would serve the intended purpose. As TSDiscoms and TSGenco are companies of the same State Government and working in coordination through the TS Power Coordination Committee, provisions related to escrow account should be

deleted from the PPA to avoid this additional expenditure. TSDiscoms should provide details regarding the dues pending.

TSDiscoms' Replies

98. Even though PPAs have provisions for LC and Escrow account, they were not opened by TSDiscoms. Payments are made as per the provision of PPAs.

Commission's View

99. The Commission has noted the submission made by the stakeholders and TSDiscoms. The Commission is of the view to amend the Payment Mechanism clause duly deleting Annexure VI wherever applicable as specified in **Appendix**.

Issue 11: Deletion of inappropriate provisions from PPAs

100. The relevant clauses in PPA are as given below:

PPA date O.P.No.	Clause	Description
19.03.2018 15 of 2021	1.44	Emergency: Emergency means a condition on or affecting TSGenco electrical system which is beyond the reasonable control of TSTransco and which threatens the safe and reliable operation of the system or which is likely to result in the disruption to safe, adequate and continuous electric supply by TSTransco or which endangers life of property, and which condition is aggravated by continued deliveries of energy from TSGenco electrical system.
17.09.2019 16 of 2021	1.18	
17.09.2019 17 of 2021	1.23	
27.01.2016 18 of 2021	1.44	
11.03.2020 19 of 2021	1.23	
19.03.2018 15 of 2021	3.11	3.11 Deemed Generation: a) Stoppage of generation due to problems in Power evacuation for Generating stations treated as Deemed Generation for the purpose of computation of availability for payment of fixed charges. b) In case of Non availability of fuel, TSDiscoms & TSGenco will decide and finalise in consultation with coal companies at that time.
17.09.2019 16 of 2021	3.14	
17.09.2019 17 of 2021	3.11	
27.01.2016 18 of 2021	3.11	
11.03.2020 19 of 2021	3.10	
19.03.2018 15 of 2021	Article 7	Force Majeure No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation/drawal of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist. The generator is entitled to claim only fixed charges and cannot claim any consequent losses during Force Majeure period.
17.09.2019 16 of 2021	Article 7	Force Majeure No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God, Non-availability of

PPA date O.P.No.	Clause	Description
		<p>fuel (In case failure to supply fuel by fuel supplier) and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation/drawal of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.</p> <p>The generator is entitled to claim only fixed charges upon declaration of Plant availability and cannot claim any consequent losses during Force Majeure period.</p>
17.09.2019 17 of 2021 11.03.2020 19 of 2021	Article 7	<p>Force Majeure</p> <p>No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation/drawal of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.</p> <p>The generator is entitled to claim only fixed charges upon declaration of Plant availability and cannot claim any consequent losses during Force Majeure period.</p>
27.01.2016 18 of 2021	Article 7	<p>Force Majeure</p> <p>No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God, Non-availability of fuel (In case failure to supply fuel by fuel supplier) and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation/drawal of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.</p> <p>The generator is entitled to claim only fixed charges duly considering normative availability and cannot claim any consequent losses during Force Majeure period.</p>

Stakeholder Comments

101. The provisions like treating stoppage of generation by stations of TSGenco due to problems in power evacuation as deemed generation for the purpose of computation of availability for payment of fixed charges are mentioned in the PPAs is inappropriate. Evacuation of power from the concerned station has to be carried out by TSTransco. For any failure of TSTransco leading to stoppage of generation of TSGenco, TSDiscoms and their consumers should not be penalised. Therefore, such provisions in the PPAs should be deleted by the Commission to protect interests of the consumers.

102. TSTransco should not be allowed to escape from its responsibility and accountability relating to evacuation of power from the stations of TSGenco. In the PPAs, 'emergency' has been defined in a way to provide safeguards for both TSTransco and TSGenco for not holding them accountable and responsible for consequences arising from factors beyond their reasonable control, similar safeguards should be provided in the PPAs to TSDiscoms also for their inability to take power from the projects of TSGenco due to factors beyond their reasonable control.
103. Conditions of force majeure defined in the PPA, are beyond the control of concerned party and no party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms and of agreement to the extent that such a failure is due to force majeure events. In such case, the provision allowing generator to claim full fixed charges upon declaration of plant availability during force majeure period is contradictory. Moreover, when conditions of force majeure are at play, by simply declaring plant availability, TSGenco can claim payment of fixed charges, that is, obviously, without generating and supplying power to TSDiscoms. If TSDiscoms cannot take power from TSGenco due to conditions of force majeure, the question of their paying fixed cost does not arise. If power is generated and supplied by TSGenco to TSDiscoms, the question of force majeure does not arise. Therefore, the Commission should remove the provision in the PPA regarding entitlement of TSGenco to claim full fixed charges upon declaration of plant availability or modify the clause as under:
"The generator, even by declaring plant availability, cannot claim any consequent losses, including fixed charges, during Force Majeure period, if generation and supply of power to the Discoms do not take place."
104. For the purpose of backing down also, declaration of the generator on plant availability should not be taken for granted, but factual ground reality whether the generator is really in a position to generate and supply power and to what extent needs to be ascertained by TSDiscoms as and when such a situation arises.

TSDiscoms' Replies

105. These are standard clauses of the PPA which have been approved by the Commission in earlier PPAs. TSTransco is completing all the evacuation projects well before the completion of generating plants.

Commission's View

106. The Commission has reviewed the PPAs in detail and to have the consistency in PPAs specifically in respect of **Article 7: Force Majeure**, the Commission has taken the PPA dated 19.03.2018 O.P.No.15 of 2021 as reference and decided to amend the Article 7 in other PPAs as given in **Appendix**.

Issue 12: Modification of PPA of KTPS VII

107. The relevant clauses in PPA are as given below:

PPA date O.P. No.	Clause
19.03.2018 15 of 2021	1.13 COD of the Project : means the Commercial Operation Date of the last unit of project.

PPA date O.P. No.	Clause
	1.14 Commercial Operation Date or COD: means in relation to unit or block of the thermal generating station, the date declared by the generating company after demonstrating the maximum continuous rating (MCR) or the installed capacity (IC) through a successful trial run after notice to the beneficiaries, and in relation to the generating station as a whole, the date of commercial operation of the last unit or block of the generating station.
	1.18 Declared Capacity (DC): means the capability of the generating station to deliver ex-bus electricity in MW declared by such generating station in relation to any period of the day or whole of the day, duly taking into account the availability of fuel.
	1.24 Maximum Continuous Rating: It is in relation to unit of the thermal power generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer at rated parameters, and in relation to a unit or block of a combined cycle thermal power generating station means the maximum continuous output at generator terminals, guaranteed by the manufacturer with steam injection and corrected to 50 Hz grid frequency and specified site conditions.

Stakeholder Comments

108. PPA for KTPS VII (O.P No.15 of 2021), dated 19.03.2018 should be amended for clarity by incorporating Regulation No.1 of 2019. The Commission should direct TSDiscoms and TSGenco to upload relevant acceptance and certification of clauses 1.13, 1.14, 1.18 & 1.24. in the PPA between TSGenco and TSDiscoms and other statutory authority as applicable as per the requirements defined in the Regulation No.1 of 2019.

TSDiscoms' Replies

109. The terms and conditions of PPA are as per prevailing Regulations of TSERC (TSERC adopted the Regulations) and any changes in TSERC Regulations that may occur in future shall be applicable for all operating norms and any other parameters. The Commission issued Regulation No.1 of 2019 which shall be applicable as per the above clause and TSERC Regulation No.1 of 2019 as applicable will be followed. The required data will be submitted to the Commission.

Commission's View

110. The Commission is in agreement with the reply given by TSDiscoms.

Issue 13: Duration of PPA

111. The relevant clauses in PPA are as given below:

Clause	Description
1.28	Duration of Agreement: Duration of Agreement shall be 25 years from date of C.O.D. of the project.

Stakeholder Comments

112. As thermal generating stations are capital intensive, long term PPAs have become a norm. As depreciation is front loaded, in all cases of TSGenco repayment is settled in 15 years if availability, PLF and financial prudence are managed correctly. So, after capital cost recovery and in these times of technological obsolescence, the accumulated depreciation should be trued down and PPA should not be for 25 years.

TSDiscoms' Replies

113. As per CERC Regulations, the useful life of thermal generating station is 25 years from the COD. Hence, PPAs have been entered for 25 years. The depreciation is computed as per CERC Regulations.

Commission's View

114. Long term PPAs form important part of TSDiscom's power purchase plan. TSDiscoms enter into long term PPAs with TSGenco for period of 25 years to meet their bulk of power requirement and to avoid price volatility, as power tied up for period of contract. The Commission is of the view that PPAs with TSGenco for shorter terms may not be beneficial as the tariff is front loaded. In addition, TSGenco develops generating stations only to cater to the growing demand of TSDiscoms' consumers. Hence, PPAs for longer term is actually beneficial for the consumers. The Commission has reviewed the PPAs in detail and decided that in last column of heading of Table 1 (b) of PPA dated 17.09.2019 [O.P.No.16 of 2021] "**Validity of PPA**" to be added as given in **Appendix**.

Issue 14: Role of TSSLDC

115. The relevant clauses in PPA are as given below:

Clause and Description
2.3.1 At 10:00 hours every day, TSGenco shall directly provide capacity notice to the TSSLDC, denoting the unit-wise hourly MW availability (00:00 – 24:00) hours on day ahead basis. TSSLDC shall in turn intimate the same day by 16:00 hours the Generation Schedule to TSGenco for the following day with respect to all the units of the Project that have declared capacity notice.
2.3.2 TSGenco shall follow the TSSLDC's directives, to back down, increase or resume generation, decrease generation at times on a day, provided that such directives are consistent with the technical limits of the facility, Prudent Utility Practices or in accordance with discharge functions of TSSLDC. Number of dispatch instructions per day shall not exceed two. The duration of back down and quantum of energy backed down each day shall be reconciled and certified by both TSGenco (at station level) and TSSLDC on monthly basis.

Stakeholder Comments

116. Clause 2.3.1 of PPA has defined the important role of TSSLDC. Accordingly, TSGenco shall directly provide its schedule generation capacity to TSSLDC. As information from TSSLDC is the key in establishing availability factor, PLF, etc., it has a direct bearing on the fixed cost charged by TSGenco. Hence, TSSLDC should be given independent status.

TSDiscoms' Replies

117. The TSDiscoms have not submitted any reply to this comment.

Commission's View

118. The Commission has noted the submission made by the stakeholders. The issue discussed is not under the ambit of this Order.

Issue 15: Provisions on Incentive

119. The relevant clauses in PPA are as given below:

PPA date O.P. No.	Clause
19.03.2018 15 of 2021 27.01.2016 18 of 2021	<p>3.7 Incentive:</p> <p>a) Target plant load factor for incentive shall be 80%.</p> <p>b) Computation of Incentive:</p> <p>i) Till implementation of ABT: Incentive shall be payable @ 25 paise per very unit (kWh) for the normative generation over and above the target Plant Load Factor 80%.</p> $\text{Normative generation} = \frac{100 \times \text{exbus energy}}{(100 - \% \text{normative auxiliary consumption})}$ <p>ii) After implementation of ABT: Incentive shall be payable at a flat rate of 25 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to target Plant Load Factor.</p>
17.09.2019 16 of 2021	<p>3.10 Incentives:</p> <p>a) Thermal Incentive: The Normative Annual Plant Load Factor (NAPLF) for incentive shall be as per the norms of TSERC Regulations. The normative values of Annual Plant Load Factor are mentioned in the Annexure-VI.</p> <p>b) Computation of Incentive:</p> <p>i) Till the implementation of DSM regulations: Incentive shall be payable at a flat rate of 50 paise/kWh for every unit (kWh) for the normative generation over and above the Normative Plant Load Factor.</p> $\text{Normative generation} = \frac{100 \times \text{exbus energy}}{(100 - \% \text{normative auxiliary consumption})}$ <p>ii) After implementation of DSM regulations: Incentive shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF).</p>
17.09.2019 17 of 2021	<p>3.7 Incentive:</p> <p>a) Normative Annual Plant Load Factor for incentive shall be 85%.</p> <p>b) Computation of Incentive:</p> <p>i) Till the implementation of DSM Regulations: Incentive shall be payable @ 50 paise per every unit (kWh) for the normative generation over and above the target Plant Load Factor as specified in the TSERC Regulation.</p> $\text{Normative generation} = \frac{100 \times \text{exbus energy}}{(100 - \% \text{normative auxiliary consumption})}$ <p>ii) After implementation of DSM Regulations: Incentive shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF).</p>
11.03.2020 19 of 2021	<p>3.6 Incentive:</p> <p>a) Normative Annual Plant Load Factor for incentive shall be 85%.</p> <p>b) Computation of Incentive: Incentive shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF).</p>

Stakeholder Comments

120. Incentives of Rs.0.50 to Rs.0.25, specified in PPA is on higher side specifically in plants where TSERC has increased SHR, reduced availability & PLF of 70% and higher auxiliary consumption due to the age of the plant. In addition, the payment of incentives is on scheduled generation instead of actual generation. The Consumers are already burdened with a high cost from these plants.

Hence, the Commission should not allow such claim and reduce incentives to Rs.0.25/kWh, in line with the Regulations.

TSDiscoms' Replies

121. The payment of incentive shall be as per the TSERC Regulations applicable from time to time and as per Regulation No.1 of 2019, the incentive to a generating station shall be payable at the rate specified in CERC Regulations, 2014 applicable during Control Period. CERC Regulations, 2014 stipulates a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF).
122. Considering the PLF as per TSERC Regulation No.1 of 2019, the payment of incentive will be for actual generation over and above the normative PLF only.
123. Payment of fixed charges is linked to availability/declared capacity of the plant. If the availability is less than normative Plant Availability Factor, payment of fixed charges will be on pro-rata basis i.e., it is dis-incentive for the non-performance.

Commission's View

124. Regulation No.1 of 2019 specifies that PLF incentive to a Generating Station shall be payable at the rate specified in CERC Regulations, 2014 as applicable during control period and as per the CERC Regulations, as amended from time to time. The Commission decided to modify the clause 3.7/3.10/3.6 of relevant PPA as "***Incentive: Incentive shall be as per TSERC Regulation.***" as given in **Appendix.**

Issue 16: Arbitration

125. The relevant Article in PPA is as given below:

PPA date O.P. No.	Clause
In All PPAs	Last para of Article 8: Arbitration In the event of any such differences or disputes between the parties, any party may by a written notice of 30 days to the other party request Telangana State Electricity Regulatory Commission (TSERC) to settle such disputes.
In All PPAs	Last para of Article 9: General If the parties are unable to arrive at a settlement, the matter shall be referred to arbitration in accordance with Article 8 and the decision of the arbitrator(s) shall be final and binding on the parties.

Stakeholder Comments

126. Article 8 of the PPA stipulates that all differences and disputes between the parties, if not solved through negotiations, shall be settled through arbitration. Article 9 provides that if parties were unable to arrive at a settlement, the matter should be referred to arbitration in accordance with Article 8 and decision of the arbitrator should be final and binding on all parties. As this PPA is being approved by the Commission any changes to it in future shall also have its approval. The Commission may refer the differences or disputes, if any, between the parties to arbitration under Section 158 of the Electricity Act, 2003. Parties on their own shall not refer the issues to arbitration.

TSDiscoms' Replies

127. All differences or disputes between the parties arising out of or in connection with this agreement shall be endeavoured to be settled amicable through negotiation between heads of the organizations or their authorized representatives failing which shall be settled through arbitration as provided herein. In the event of any such differences or disputes between the parties, any party may by a written notice of 30 days to the other party and request the Commission to settle such disputes.

Commission's View

128. The Commission has noted the submission made by the stakeholders; and decided to append the following line to the last para of Article 8: Arbitration. *"The same shall be dealt as per the provisions of the Electricity Act, 2003."* as given in **Appendix**.

Issue 17: Addition of Explanatory Annexure

Stakeholder Comments

129. All the PPAs should have an annexure detailing for the specific generating station, the normative standard and performance parameters which are required to assess station's performance as required in the Regulation No.1 of 2019.

TSDiscoms' Replies

130. The station wise normative and performance parameters shall be as per TSERC Regulations for the duration of the PPA.

Commission's View

131. The Commission is in agreement with the reply of TSDiscoms.

Issue 18: Assessment of Controllable and Uncontrollable Costs

Stakeholder Comments

132. Controllable and uncontrollable costs are arguably the most important factors deciding the tariffs. stakeholder requested for more transparency for data and information. Annual Accounts of TSTransco are not yet submitted.

TSDiscoms' Replies

133. Annual Reports of TSTransco will be furnished.

Commission's View

134. The Commission noted the comment of the stakeholder.

Issue 19: Lack of Station wise Details in the Annual Reports and P&L Accounts

Stakeholder Comments

135. In Annual Report for FY 2019-20 of TSGenco, consolidated total expenditure of Rs.5114.54 crore has been shown in the P&L statement towards cost of coal and oil consumed. This is a little over 50% of TSGenco's revenue. There is no station wise consumption in quantity or cost. This is a regulatory account statement required as per the Regulations to arrive at the variable cost for each

station. In fact, as per the Regulations, the quarterly fuel cost finalization is based on these details. Periodic joint sampling & testing of coal to assess GCV, moisture (surface & inherent) and uploading the same information on the webpage is a regulatory requirement. For the Commission also this information is necessary for arriving variable cost. TSGenco should present same information on its website.

136. In recent 75th Forum of Regulators meeting on 30.04.2021, the Chairperson of UPERC opined that the ERCs should rely on the regulatory accounts of the DISCOMs and not on their P&L accounts. The regulatory account takes into account normative parameters fixed by the ERC.

TSDiscoms' Replies

137. Annual reports are always presented for the Company, not station wise.

Commission's View

138. The Commission has taken note of the suggestion of stakeholder. Whereas, issue pertains to determination of Tariff and is not under the ambit of this Order. However, with regard to regulatory accounts, the Commission shall endeavour to notify its Regulatory Accounts Regulation.

VII. Commission's findings

139. The Commission by examining the legality of the provisions in PPAs has identified certain deviations and discrepancies with the provisions of Regulation viz., treating colony consumption as auxiliary consumption in PPA dated 19.03.2018 & 27.01.2016 [O.P.No.15 of 2021 & O.P.No.18 of 2021], etc., and certain clauses are inconsistent among the PPAs which are to be rectified by amending the certain clauses of the PPAs as detailed in **Appendix**.

VIII. Summary

140. As discussed in the foregoing paragraphs on dealing with the issue/clause of the subject/PPA, based on the objections/suggestions/comments received from the stakeholders, the Commission hereby accords the consent to the PPAs subject to amendments in certain clauses and Articles of PPAs as detailed in **Appendix**. TSDiscoms are directed to submit the PPAs duly incorporating changes for the record of the Commission.

141. Accordingly, these matters are disposed of.

This Order is corrected and signed on this the 6th day of August, 2021.

Sd/-	Sd/-	Sd/-
(BANDARU KRISHNAIAH)	(M. D. MANOHAR RAJU)	(T. SRIRANGA RAO)
MEMBER	MEMBER	CHAIRMAN

//CERTIFIED COPY//

Appendix

[Against blank space clause under respective O.P. No., no change/amendment is required]

Clause	Clause No. in PPA dated 19.03.2018 O.P.No.15 of 2021	Clause No. in PPA dated 17.09.2019 O.P.No.16 of 2021	Clause No. in PPA dated 17.09.2019 O.P.No.17 of 2021	Clause No. in PPA dated 27.01.2016 O.P.No.18 of 2021	Clause No. in PPA dated 11.03.2020 O.P.No.19 of 2021	To be Amended as in place of existing clause
Article 1: Interpretation and Definitions						
Authority	1.7			1.7		“ Authority or CEA ” means the Central Electricity Authority referred to in section 70 of the Act;
Auxiliary Energy Consumption (AUX)	1.8			1.8		“ Auxiliary Energy Consumption (AUX) ” in relation to a period, in case of a Generating Station or Unit, means the quantum of energy consumed by auxiliary equipment of the Generating Station, such as the equipment being used for the purpose of operating plant and machinery, including switchyard of the Generating Station and the transformer losses within the Generating Station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the Units of the Generating Station: Provided that the Auxiliary Energy Consumption shall not include the energy consumed for supply of power to housing colony and other facilities at the Generating Station and the power consumed for construction works at the Generating Station;
Dispatch Instructions	1.20			1.20		“ Dispatch Instructions ” shall be as per the Telangana State Electricity Regulatory Commission (State Electricity Grid Code) Regulation, 2018 [Regulation No.4 of 2018] as amended from time to time;
Grid Code	1.21	1.23	1.27	1.21	1.27	“ Grid Code ” means the Indian Electricity Grid Code specified by the Central Commission or the Telangana State Electricity Regulatory Commission (State Electricity Grid Code) Regulation, 2018 [Regulation No.4 of 2018] whichever is applicable as amended from time to time or subsequent re-enactment thereof;
Plant Load Factor (or PLF) for Thermal Power Plants	1.9			1.9		To delete the expression: The above PLF definition shall be applicable only after implementation of ABT and till the implementation of ABT, the PLF definition is as follows: $PLF \text{ for a given period} = \frac{\text{Total net electrical energy export for a given period measured at interconnection point} \times 100}{(\text{Installed capacity of generating station in MW} \times (\text{No. of Hours in a given period}) \times (100 - Aux_n))}$ Where Aux_n = Normative Auxiliary consumption as percentage of gross generation.
Article 2: Sale & Purchase of available Electrical Capacity & Energy						
Dispatch Instructions (DI)	2.3.1			2.3.1		Dispatch Instructions shall be as per the TSERC Regulations 4 of 2018 and any amendments by TSERC there on.
	2.3.4			2.3.4		Backing down Limits of Unit: The Technical Minimum limit of Generating Unit shall be in accordance with the relevant provisions of Grid Code. In the absence of any dispatch instructions from TSSLDC, the unit will operate according to the day ahead capacity notice furnished by TSGenco.
Generation Tariff for TSGenco Power Stations:						
Article 3: Generation Tariff						
Debt Equity Ratio	3.2.4	3.3.2	3.2.4	3.2.4	3.2.4	Debt-equity ratio: For determination of Tariff, the debt-equity ratio shall be considered as per provisions of TSERC Regulation.
Recovery of Fixed Charges	3.2.5	3.5	3.2.5	3.2.5	3.2.5	Recovery of Fixed Charges: The fixed charges shall be computed on the annual basis based on norms specified in TSERC Regulation and shall be recovered on monthly basis as per TSERC Regulation.
		3.5.1				To be deleted.
		3.5.2				To be deleted.
Renovation and Modernisation	3.2.6			3.2.6	3.2.6	Renovation and Modernisation: Renovation and Modernisation works shall be carried out in accordance with TSERC Regulation.
Variable Charges	3.3	3.7	3.3	3.3	3.3	Variable Charges: For any billing month, the variable charges shall be determined as per TSERC Regulation.
Colony Consumption/ Norms of Operation	3.5	-	-	3.5	-	To be deleted.
				3.5.1		To be deleted.
				3.5.2		To be deleted.
				3.5.3		To be deleted.
				3.5.4		To be deleted.
			3.5.5		To be deleted.	
Fuel Cost Adjustment	3.6	3.9	3.6	3.6	3.5	Fuel Cost Adjustment (FCA): The FCA shall be made as per TSERC Regulation.
Incentives	3.7	3.10	3.7	3.7	3.6	Incentive: Incentive shall be as per TSERC Regulation.
Primary Energy Charges		3.11				Primary Energy Charges: The rate of Primary energy for all hydro electric power generating stations shall be as per TSERC Regulation.
Capacity Charges		3.12				Capacity Charges: Capacity charges are payable in addition to the primary energy charges as per TSERC Regulation.

Clause	Clause No. in PPA dated 19.03.2018 O.P.No.15 of 2021	Clause No. in PPA dated 17.09.2019 O.P.No.16 of 2021	Clause No. in PPA dated 17.09.2019 O.P.No.17 of 2021	Clause No. in PPA dated 27.01.2016 O.P.No.18 of 2021	Clause No. in PPA dated 11.03.2020 O.P.No.19 of 2021	To be Amended as in place of existing clause
Secondary Energy Charges		3.13				Secondary Energy Charges shall be payable as per TSERC Regulation;
Windage & Transit Losses		3.16				To be deleted.
Payment Mechanism	3.13	3.17	3.13	3.13	3.12	<p>Payment Mechanism:</p> <p>I Letter of Credit (LC)</p> <p>a) The bills shall be presented to the designated officer of TSDiscoms for Payments. Payments by TSDiscoms for the bills raised by TSGenco shall be made within 60 days through Letter of Credit (LC).</p> <p>b) A revolving Letter of Credit (LC) to be opened in favour of TSGenco to cover one-month receivables, subject to review of value of bills each year on 1st April.</p> <p>c) LC shall be valid for the term of the PPA by Renewing/ Revalidating /Opening New LC in place of existing LC.</p> <p>d) LC charges in relation to opening, operation and maintenance shall be to TSDiscoms account.</p> <p>II Escrow Account</p> <p>a) In addition, TSDiscoms shall open an Escrow account by entering Escrow Agreement with a Nationalised Bank (for the entire period of PPA) thirty days (30) prior to effective date, to cover one month receivables valid for the tenure of the PPA as a backup to the Letter of credit.</p> <p>b) TSDiscoms shall cause all receipts of TSDiscoms arising from Sale of Power (Both LT & HT) to be deposited in Escrow account aggregating to an amount not less than the L.C. amount.</p> <p>c) Such instruction shall be irrevocable during the term of this agreement. TSDiscoms shall not act in any manner as may negatively affect the inflow of the revenues into this account and shall take such steps as may be necessary to assure the flow of the specified level of revenues in such account during the term of this agreement.</p> <p>d) In the event of TSDiscoms failure to pay any sums due to TSGenco on the due date of payment through the Letter of Credit or otherwise, when any sum is due to TSGenco, or in case of non-renewal of the letter of credit, TSGenco by notice in writing to the bank holding the Escrow account, may require such bank not to honour any of cheques, hundies and requisition presented to it by or on behalf of TSDiscoms or any other draws on the account until after the claim of TSGenco is first discharged.</p> <p>e) This arrangement shall continue parallelly with LC for the entire period of the Power Purchase Agreement.</p>
Rebate	3.14	3.19	3.14	3.14	3.13	Rebate: Any rebate on the bills shall be as per TSERC Regulation.
Surcharge Due to late Payment	3.15	3.18	3.15	3.15	3.14	Delayed Payment Charges: Delayed Payment Charges and its treatment shall be as per the provisions of TSERC Regulation.
Income Tax	3.16	3.20	3.16	3.16	3.15	Income Tax: Tax liability on TSGenco shall be allowed as per the provisions of TSERC Regulation.
General		3.23				To be appended as: 3.2.3 General: any changes in TSERC regulations that may occur in future shall be applicable for all operating norms or any other parameters.
	3.19			3.19		To be deleted.
Article 7: Force Majeure		<i>'In place of existing'</i>		<i>'In place of existing'</i>		<p>No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation /drawal of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.</p> <p>The generator is entitled to claim only fixed charges and cannot claim any consequent losses during Force Majeure period.</p>

Clause	Clause No. in PPA dated 19.03.2018 O.P.No.15 of 2021	Clause No. in PPA dated 17.09.2019 O.P.No.16 of 2021	Clause No. in PPA dated 17.09.2019 O.P.No.17 of 2021	Clause No. in PPA dated 27.01.2016 O.P.No.18 of 2021	Clause No. in PPA dated 11.03.2020 O.P.No.19 of 2021	To be Amended as in place of existing clause
Article 8: Arbitration	'In place of existing'	'In place of existing'	'In place of existing'	'In place of existing'	'In place of existing'	To append the following line to the last para of Article 8: Arbitration. "The same shall be dealt as per the provisions of the Electricity Act, 2003."
Article 10: Notice	'In place of existing'	'In place of existing'	'In place of existing'	'In place of existing'	'In place of existing'	To add the following provision Provided further that the parties are not precluded from issuing a notice by a special messenger or any mode of information technology platform. In case usage of information technology platform, a simple post copy confirmation be sent by certified posting.
Article 11: Assignment	11.1	11.1	11.1	11.1	11.1	TSGenco acknowledges and accepts that TSDiscoms shall (with the consent of TSGenco) be entitled to assign all its rights, duties, obligations and responsibilities under this agreement to any other successor entities, either wholly or partly and to one or more of them and in such manner as may be agreed to between TSDiscoms and the said successor entities with the approval of TSERC and after due service of written notice of the proposed assignment to TSGenco. Upon such assignment taking place, the corresponding rights, obligations and interest of TSDiscoms shall in connection with this agreement or incidental thereto devolve on the successor entities: Provided that TSDiscoms shall continue to be responsible for all obligations outstanding prior to the date of assignment, until these are fully discharged by the successor entities: Provided that at a subsequent date, the successor entities refuses to accept any rights/obligations/liabilities as not devolving on them, these will automatically revert to TSDiscoms, who shall discharge their obligations in respect of such rights, obligations and liabilities without any demur: Provided further that, in the event of the successor assignees refuses to perform any or all obligations that have devolved on them pursuant any scheme of sale / transfer of any of the parties, then the subsisting parties to the agreement may bring such situation to the notice of the TSERC and TSERC will be required to pass any appropriate orders requiring compliance by any other authority including but not limited to government.
TSGenco Thermal & Hydel Power Stations		Annexure I				Table 1(b) heading "Validity of PPA" to be included in the last column.
Annexure on Computation of Variable Charges	Annexure III	Annexure II	Annexure III	Annexure III	Annexure III	To be deleted.
Annexure on Computation of Delivered Cost of Coal	Annexure V	Annexure IV	Annexure V	Annexure V	Annexure V	To be deleted.
Annexure on Operating Parameters		Annexure VI				To be deleted.
Annexure on Payment Mechanism	Annexure VI	Annexure VII	Annexure VI	Annexure VI		To be deleted.

**Annexure-I
Initial Public Notice and its subsequent Public Notice**

Tirraes of India 5/6/2021

TELANGANA STATE ELECTRICITY REGULATORY COMMISSION
5th Floor, Singareni Bhavan, Red Hills, Lakdi-Ka-pul, Hyderabad 500004. secy@tserc.gov.in

Ref No: A-Secy-CPP/01-21 PUBLIC NOTICE DATE: 02.06.2021

In terms of TSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 [Regulation No. 1 of 2019] and APERC (Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity) Regulation, 2005 [Regulation No. 4 of 2005] adopted vide TSERC (Adoption) Regulation [Regulation No. 1 of 2014], TSDISCOMs viz., TSSPDCL & TSNPDCL have submitted before the TSERC the proposal for consent of PPAs entered between the TSDISCOMs and TSGENCO. These PPAs have been taken on record by the Commission in O.P. Nos. 15 to 19 of 2021, copies of the PPAs referred are uploaded on the Commission's website www.tserc.gov.in. Based on the submissions made by TSDISCOMs, the Commission has initiated the *Suo-Moto* proceeding for approval of PPAs entered between TSDISCOMs and TSGENCO. Suggestions/ objections/ comments in the subject matter are invited from all stakeholders and public at large on or before **18.06.2021** by **5.00 P.M** to the above mentioned address.

The Public Hearing in the subject matter will be held through video conference on **24.06.2021** from 11:30 hrs onwards, stakeholders desiring to be heard in person shall furnish the required details to secy@tserc.gov.in

Sd/-
COMMISSION SECRETARY

R.O. No.: 1836-PP/CL-AGENCY/ADVTH/2021-22

Naraasthe Telangana 5/6/21

తెలంగాణ స్టేట్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమిషన్
5వ అంతస్తు, సింగరేణి భవన్, రెడ్ హిల్స్, లక్డి-కా-పుల్, హైదరాబాద్-500004
secy@tserc.gov.in
బహారంగ ప్రకటన

TSERC (అండ్) రెగ్యులేషన్ (రెగ్యులేషన్ నం. 1 ఆఫ్ 2014) ప్రకారం అవసరించిన TSERC (అండ్) అండ్ కండిషన్స్ ఫర్ డిటర్మినింగ్ అండ్ అవరేజింగ్ లాండ్ రెగ్యులేషన్, 2018 (రెగ్యులేషన్ నం. 1 ఆఫ్ 2018) మరియు APERC (అండ్) కండిషన్స్ ఫర్ డిటర్మినింగ్ అండ్ లాండ్ ఫర్ వీలింగ్ అండ్ రిటైల్ సేల్ ఆఫ్ ఎలక్ట్రిసిటీ కోసం లాండ్ రెగ్యులేషన్, 2005 (రెగ్యులేషన్ నం. 4 ఆఫ్ 2005) ప్రకారం, TS డిస్ట్రిబ్యూషన్ అండ్ సప్లై కంపెనీలు TSSPDCL & TSNPDCL లు TS డిస్ట్రిబ్యూషన్ మరియు TS డిమాండ్ మెంజర్మెంట్ కు PPA అనుబంధి కొరకు ప్రతిపాదనలు TSERC నుండి పంపించాయి. ఈ PPA లు O.P. నం. 15 నుండి 19 ఆఫ్ 2021లో కమిషన్ ఆఫ్ రికార్డ్ లో ఉంచబడినవి. తెలిసిన PPA లు కాపీలు కమిషన్ వెబ్సైట్ www.tserc.gov.inలో అప్లోడ్ చేయబడినవి. TS డిస్ట్రిబ్యూషన్ మరియు TSGENCO మధ్య PPA అనుబంధి కొరకు *Suo-Moto* ప్రొసీడింగ్ను కమిషన్ ప్రారంభించింది. ప్రతిపాదనలకు ప్రతిస్పందనలు మరియు సూచనలు పంపించాలి/ అప్రోవల్/ డిస్అప్రోవల్/ డిస్కంట్ల పైన తెలిసిన వివరాలలో 18-06-2021 నాటికి లేదా అలాగే సా. 5.00 గం.లోగా కొరకు చేయాలి. నవంబరు 24-06-2021 నాటికి 11.30 గం. నుండి వీడియో కాన్ఫరెన్స్ ద్వారా నిర్వహించబడుతుంది. స్టాక్హోల్డర్లు అనుబంధి వివరాలను secy@tserc.gov.in కు పంపించాలి.

సెక్యరటరీ కమిషన్ (FAC)

DIPR RO. No. 12473-PP/CL/Adv/1/2021-22, Dt: 04/06/2021

Sakshi 05/6/21

తెలంగాణ స్టేట్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమిషన్
5వ అంతస్తు, సింగరేణి భవన్, రెడ్ హిల్స్, లక్డి-కా-పుల్, హైదరాబాద్-500004. secy@tserc.gov.in
బహారంగ ప్రకటన

TSERC (అండ్) రెగ్యులేషన్ (రెగ్యులేషన్ నం. 1 ఆఫ్ 2014) ప్రకారం అవసరించిన TSERC (అండ్) అండ్ కండిషన్స్ ఫర్ డిటర్మినింగ్ అండ్ అవరేజింగ్ లాండ్ రెగ్యులేషన్, 2019 (రెగ్యులేషన్ నం. 1 ఆఫ్ 2019) మరియు APERC (Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity) Regulation, 2005 [Regulation No. 4 of 2005] adopted vide TSERC (Adoption) Regulation [Regulation No. 1 of 2014], TSDISCOMs viz., TSSPDCL & TSNPDCL have submitted before the TSERC the proposal for consent of PPAs entered between the TSDISCOMs and TSGENCO. These PPAs have been taken on record by the Commission in O.P. Nos. 15 to 19 of 2021, copies of the PPAs referred are uploaded on the Commission's website www.tserc.gov.in. Based on the submissions made by TSDISCOMs, the Commission has initiated the *Suo-Moto* proceeding for approval of PPAs entered between TSDISCOMs and TSGENCO. Suggestions/ objections/ comments in the subject matter are invited from all stakeholders and public at large on or before **18.06.2021** by **5.00 P.M** to the above mentioned address.

The Public Hearing in the subject matter will be held through video conference on **24.06.2021** from 11:30 hrs onwards, stakeholders desiring to be heard in person shall furnish the required details to secy@tserc.gov.in

సెక్యరటరీ కమిషన్ (FAC)

తేదీ : 02.06.2021
Ref No. A-Secy-CPP/01-21
DIPR RO.No. 12473-PP/CL/Adv/1/2021-22, Dt: 04.06.2021


నడున్న యెం గా 12-06-2021

 తెలంగాణ స్టేట్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమిషన్
5వ అంతస్తు, సింగరేణి భవన్, రెడ్ హిల్స్, లక్ష్మీకాపూర్, హైదరాబాద్-500004
secy@tserc.gov.in

బహిరంగ ప్రకటన

O.P. నంబర్లు 15 నుండి 19 ఆఫ్ 2021లో టీఎస్ డిస్కంస్ మరియు టీఎస్ జెన్కో మధ్య PPAల సుమోటో ఆమోదం విషయంలో ప్రజాభిప్రాయ సేకరణ 24-06-2021న షెడ్యూల్ చేయబడినది 30-06-2021కి రీషెడ్యూల్ చేయబడినది. తదుపరి వివరాలకు www.tserc.gov.in దర్శించండి.
DIPR R.O. No. 12724-PP/CL/Adv/1/2021-22, Dt: 11-06-2021 సం/- కమిషన్ సెక్రటరీ (FAC)

Sakshi June 12-2021

 తెలంగాణ స్టేట్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమిషన్
5వ అంతస్తు, సింగరేణి భవన్, లక్ష్మీకాపూర్, హైదరాబాద్-500004, Secy@tserc.gov.in

బహిరంగ ప్రకటన

O.P.No.s 15 to 19 of 2021 లోని TSDISCOMS మరియు TSGENCO మధ్య PPA's యొక్క Sue-Moto ఆమోదం విషయంలో 24.06.2021న షెడ్యూలు చేయబడిన బహిరంగ విచారణ 30.06.2021కి రీషెడ్యూలు చేయబడినది. తదుపరి వివరాలకు దర్శించండి www.tserc.gov.in
తేదీ: 11.06.2021 సం/- కమిషన్ సెక్రటరీ (FAC)
DIPR RO.No. 12724-PP/CL/ADVT: 2021-22 : 11.06.2021

The Times of india Date June 12-2021

 **TELANGANA STATE ELECTRICITY REGULATORY COMMISSION**
5th Floor, Singareni Bhavan, Red Hills, Lakdi-Kapal, Hyderabad 500004, secy@tserc.gov.in

PUBLIC NOTICE Date: 11.06.2021

Public hearing in the matter of Suo-Moto approval of PPA's between TSDISCOMS and TSGENCO in O.P.No's 15 to 19 of 2021 scheduled on 24.06.2021 is rescheduled to 30.06.2021. For further details please visit www.tserc.gov.in. Sd/-
R.O. No.: 1848-PPICL-AGENCY/ADVT/1/2021-22 COMMISSION SECRETARY (FAC)

Munsif

12/6/21

تلنگانہ اسٹیٹ الیکٹریسیٹی ریگولیشن کمیٹی
5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500004. secy@tserc.gov.in
تاریخ: 11-06-2021
اطلاع عام
پی پی اے اس درمیان TSDISCOMS اور TSGENCO اور پی پی نمبر 15 تا 19 میں باقیہ 2021 جس کا شیڈول
24-06-2021 تھا اس میں تبدیل کرتے ہوئے اسے 30-06-2021 تک کر دیا گیا ہے۔ دیگر تفصیلات کیلئے
دیکھیں ویب سائٹ www.tserc.gov.in
شرحہ: کیشن سکریٹری (ایف اے سی) R.O.No.1848-PP/CL-AGENCY/ADVT/1/2021-22

Telangana Today 12/6/2021

**TELANGANA STATE ELECTRICITY REGULATORY COMMISSION**
5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500004. secy@tserc.gov.in
PUBLIC NOTICE Date: 11.06.2021
Public hearing in the matter of Suo-Moto approval of PPAs between
TSDISCOMS and TSGENCO in O.P.No's 15 to 19 of 2021 scheduled
on 24.06.2021 is rescheduled to 30.06.2021. For further details please
visit www.tserc.gov.in.
Sd/-
R.O. No.: 1848-PP/CL-AGENCY/ADVT/1/2021-22 COMMISSION SECRETARY [FAC]

Annexure-II

List of stakeholders who submitted written suggestion/objections/comments

SI. No.	Details of the stakeholders
1)	Sri M.Venugopal Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad.
2)	Sri M.Thimma Reddy, Convener for Peoples Monitoring Group on Electricity Regulations, Hyderabad
3)	Federation of Telangana Chambers of Commerce and Industry, Hyderabad.



Annexure-III

List of stakeholders who attended virtual Public Hearing held on 30.06.2021

SI. No.	Details of the stakeholder
1)	Sri M.Venugopal Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad
2)	Federation of Telangana Chambers of Commerce and Industry, Hyderabad

