To,	From,
The Secretary, T.S. Electricity Regulatory Commission, 5th Floor, Singareni Bhavan, Red Hills, Lakdi ka pool, Hyderabad – 500 008	M. Thimma Reddy, Convenor, People's Monitoring Group on Electricity Regulation, 39, Radha Krishna Nagar, Hyderguda Village, Attapur, Hyderabad – 500 048

Date: 25-02-2021

Dear Sir;

Sub: - Comments on application filed by TSGENCO for truing up Generation tariff for the control period 2014-19.

Ref: - Public Notice dated 04-02-2021 with respect to O.P. No. 5 of 2021.

1. In response to the above-mentioned Public Notice calling for comments on TSGENCO's application for truing up generation tariff for the control period 2014-19 we submitting the following comments for consideration of the Commission.

2. Going by contents of Para 7 of the present application this application should have been termed "Application for truing down the Generation tariff" rather than "Application for truing up the Generation tariff". According to Para 7, "TSGENCO has claimed the fixed charges for the 3rd Control Period (2014-19) of Rs. 19,374.96 Crs against Rs. 20,645.98 Crs after adjustment of Rs. 1,271.02 Crs…". But in Annexure A9 "Fixed charges to be claimed after True up (FY 2014-19)" Rs. 1,169.96 Crs is mentioned. But this figure is not mentioned any where in the explanatory note. These conflicting figures raises doubts whether TSGENCO is petitioning for truing down or truing up. TSGENCO needs to clarify the same.

3. Para 7 a. of the application mentions about the stations which have achieved below normative Availability. The Annexure A7 is titled "Adjusted True up Fixed charges based on Availability (FY 2014-19)". But this application does not provide any information on performance of the TSGENCO units. Without this information TSGENCO's statement on trued up fixed charges based on availability can not be verified. We request the Commission to direct TSGENCO to provide information on performance of its units during the control period FY 2014-19.

4. In Para 14 of the present application TSGENCO provided station wise variable cost for computation of working capital. In the following table these figures are compared with variable cost information available from TSDISCOM's ARR and Tariff Proposal filings for the FY 2018-19.

Table: Variable cost **(Rs. /kWh)**

Year	Source	KTPS O&M	KTPS V	KTPS VI	RTS - B	KTPP I	KTPP II	KTPS VII
2014-15	DISCOM	2.57	2.08	3.01	3.11	2.28	--	--
	GENCO	2.67	2.19	3.39	2.63	2.47	--	--
2015-16	DISCOM	2.52	2.07	2.63	2.70	2.46	NA	--
	GENCO	2.57	2.21	2.89	3.03	2.68	2.48	--
2016-17	DISCOM	2.11	2.22	2.67	3.05	2.56	2.49	--
	GENCO	2.72	2.32	2.93	3.15	2.76	2.44	--
2017-18	DISCOM	2.61	2.37	2.77	2.68	2.55	2.44	--
	GENCO	2.74	2.66	3.04	2.96	2.77	2.49	--
2018-19	DISCOM	2.38	2.21	2.70	2.60	2.55	2.36	2.36
	GENCO	3.20	2.82	3.13	2.94	3.34	2.92	2.92

From the above table it is clear that variable cost claimed by TSGENCO is much higher than that shown by TSDISCOMs in their ARR filings for the same period. As it has implications on computation of working capital and on interest on working capital and finally on fixed charges the same needs to be thoroughly scrutinised.

We request the Commission to take our above submission on record.

Thanking you.

Sincerely yours,

M. Thimma Reddy,

Convenor.

To,	From,
The Secretary, T.S. Electricity Regulatory Commission, 5th Floor, Singareni Bhavan, Red Hills, Lakdi ka pool, Hyderabad – 500 008	M. Thimma Reddy, Convenor, People's Monitoring Group on Electricity Regulation, 39, Radha Krishna Nagar, Hyderguda Village, Attapur, Hyderabad – 500 048

Date: 25-02-2021

Dear Sir;

Sub: - Comments on petition for MYT filed by TSGENCO for the control period 2019-24.

Ref: - Public Notice dated 04-02-2021 with respect to O.P. No. 6 of 2021.

1.1 In response to the above-mentioned Public Notice calling for comments on TSGENCO's petition for determination of capital cost for new stations and generation tariff for the existing and new stations for the control period 2019-24 we submitting the following comments for consideration of the Commission.

Lack of data on capacity additions and retirement

2.1 As per several reports, such as Telangana's Power for All report, CEA's Broad Status Report, and TSERC's order on annual fee and operating charges for SLDC for 4th control period from FY20 to FY24, several coal-based plants are expected to come online in the time period considered. These include both central capacity such as NTPC's Telangana STPS, and state capacity such as some units of Yadadri TPS and the remaining units of Bhadradri TPS (BTPS).

2.2 Similarly, as per correspondence with CEA's Power Data Management Division, 300 MW of TSGENCO's Kothagudem Thermal Power Station (KTPS) has been decommissioned by FY19. This leaves 420 MW of KTPS, as reflected in the current tariff filings. However, generation from this capacity, and TSGENCO's Ramagundem TPS B, is not claimed beyond FY20, as per the SLDC MYT order for FY19-FY24. It is unclear whether such treatment is due to retirement of these capacity owing to their advanced age or for some other reason.

2,3 TSGENCO's tariff filing for FY19 to FY24 only includes details on plants that have already been commissioned and is operational. It does not include details about capacity in the pipeline or capacity likely to be retired in the control period considered. Yadadri TPS does not figure in the present application of TSGENCO while it finds place in the Commission's SLDC MYT Order for the period 2019-24. Given that such change in capacity will have significant impact on supply ability and finances of TSGENCO as well as DISCOMs, cost details and timelines in this regard must be a part of TSGENCO's tariff filing process.

Need for better resource planning and load forecast

3.1 Currently, the power sector is undergoing a lot of changes, and decisions regarding capacity additions need to include these dynamic parameters. The prevalent capacity addition plan being followed in Telangana is dated, and does not account for the changes that have occurred in the last few years. If capacity addition continues as is, without accounting for alternative RE generation and changes in load, the state's power sector will be burdened with long-term lock-ins and stranded assets.

3.2 Table 1 illustrates a conservative power procurement scenario for FY24, based on SLDC MYT order for FY19-FY24. It assumes no increase in RE and does not include the impact of market purchases. A realistic scenario, where only one unit of Yadadri and all units of Bhadradri comes online is termed Scenario 1. Scenario 2 includes all likely capacity additions as per the SLDC MYT order for FY19-FY24. Even in Scenario 1, TSGENCO's total generation is in excess of projections of energy requirement as per the 19th EPS. Further, as per the 19th EPS, the growth in energy requirement between FY20 and FY24 happens at a rate of 5%. But this growth rate is much higher when accounting for capacity additions in the pipeline. In Scenario 1, the total power purchase growth rate between FY20 and FY24 is 7%, and the same in Scenario 2 is 14%.

3.3 The capacity additions considered are high cost and coal-based, and will likely remain in the generation mix of the state for a long time, resulting in high costly base load surplus. In order to prevent stranded assets and sunk costs, a proper evaluation of demand in the state must be carried out. This must consider the impact of growing RE, changing load patterns, environmental concerns, etc. Based on this, the thermal capacity addition needs to be reviewed.

Table 1: Conservative power purchase mix of TS in FY24

Station	FY20		FY24	
	MW	MU	MW	MU
Kothagudem A	180	986.88	0	0
Kothagudem B	120	659.43	0	0
Kothagudem C	120	610.44	0	0
Ramagundam B	62.5	389.65	0	0
Kothagudem V	500	3475.39	500	3475.39
Kothagudem VI	500	3415.67	500	3415.67
Kothagudem VII	800	3561.57	800	3561.57
Kakatiya I	500	2947.85	500	2947.85
Kakatiya II	600	4290.91	600	4290.91
Bhadradri TPS I	270	0	270	0
Bhadradri 2-4			810	6031.26
Yadadri 1			800	5956.8
TSGENCO Thermal	*3652.5*	*20337.8*	*4780*	*29679.5*
TSGENCO Hydro	*2430.6*	*4494.89*	*2430.6*	*4494.89*
Total TSGENCO	*6083.1*	*24832.7*	*7210.6*	*34174.3*
Central		26320.94		26320.94
Private		18433.48		18433.48
Others		416.1		416.1
RE		6451.13		6451.13
NLC 2nd Expansion				2226.428
Telangana TPP				11913.6
Total Power Purchase (Scenario 1)		*76454.3*		*99936*
Energy Requirement as per 19th EPS		75164		91836
Surplus compared to EPS		1290.333		8100.022
If all of Yadadri and Singaneri Stage II comes online as per SLDC MYT				*29784*
Total Power Purchase (Scenario 2)		*76454.3*		*129720*
Surplus compared to EPS		1290.333		37884.02

Note: 1. Green cells indicate capacity added in FY24. Blue cells indicate the total power purchase in each scenario.
2. Generation has been considered as per SLDC MYT order, where available. Else has been calculated assuming a normative PLF of 85%.

Capital cost of new projects.

4.1 According to Para 8 of the TSGENCO's petition, "This application is for the Determination of capital cost for new projects and station wise Tariff for the entire electricity Generated by TSGENCO at its Generating stations situated in Telangana State and supplied to the Distribution licensees of Telangana State…"

4.2 Para 5 of the TSGENCO's petition mentioned that TSGENCO entered Power Purchase Agreements with TSDISCOMs in respect of KTPP Stage II, KTPS Stage VII and BTPS

(Bhadradri Thermal Power Station). ‘Table 1: Particulars of the PPAs’ following the above Para 5 mentioned KTPS Stage VII (800 MW) and BTPS (1080 MW) as New Stations (Rows 15 and 16). Capital cost of KTPS Stage VII is projected as Rs. 5,865 Crore. Its capital cost per MW is Rs. 7.33 Crore. Capital cost of BTPS is projected as Rs. 9,959.43 Crore. Its capital cost per MW is Rs. 9.22 Crore. TSGENCO in its petition did not explain the basis for the projected capital costs of these two new plants. The Commission in its TSGENCO Generation Tariff Order for the control period 2014-19 in O.P. No. 26 0f 2016 dated 5th June, 2017 determined the capital cost of KTPP Stage II (600 MW) as Rs. 3,470.62 Crore. Its per MW capital cost amounts to Rs. 5.78 Crore. Compared to per MW capital cost of KTPP Stage II per MW capital cost of KTPS Stage VII is higher by 26.82% and that of BTPS is higher by 59.52%. Such exorbitantly high capital costs of the new power plants of TSGENCO demands thorough scrutiny of the claims by TSGENCO. We request the Commission to subject TSGENCO’s claims on capital costs of its new power plants to thorough scrutiny.

4.3 The proper way to scrutinise the claims of TSGENCO regarding capital costs of its new power plants is to subject the PPAs related to these new plants that TSGENCO has entered in to with TSDISCOMs to public process. In this regard we request the Commission to direct the TSGENCO to make the PPAs of these new power plants publicly available, the way it did with present applications for determination of generation tariff for the control period 2019-24 and true up of the control period 2014-19.

4.4 According to Para 3.2 of Regulation 1 of 2019, “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 in to 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 this TSERC Generation Tariff Regulations, 2019; “

PPA related to KTPS Stage VII is dated 19-03-2018, and PPA related to BTPS is dated 17-09-2019. These PPAs have not yet been approved by the Commission. These PPAs have to be approved according to Terms and Conditions of Generation Tariff Regulation, 2019 (Regulation 1 of 2019). As a part of the process to approve these PPAs we request the Commission to direct the TSGENCO to make PPAs related to these two new power plants publicly available.

4.5 In this context we would like to draw the attention of the Commission to its Orders dated 31-03-2017 in O.P. No. 93 of 2015 related to consent to PPA between TSDISCOMs and Chhattisgarh State DISCOM and TSDISCOMs for purchase of 1,000 MW of power on long term; dated 30-07-2016 in O.P. No 10 of 2016 related to approval of PPA between NTPC and TSDISCOMs on Telangana Super Thermal Power Project (Phase I) (2 X 800 MW); and dated 19-06-2017 in O.P. No. 9 of 2016 related to approval of PPA between Singareni Collieries Company Ltd (SCCL) and TSIDSCOMs (2 X 600 MW). In keeping with this tradition of scrutinising PPAs entered in to by TSDISCOMs with power generators through public process we request the Commission to subject the PPAs related to KTPS Stage VII and BTPS of TSGENCO also to public process by making these PPAs available to public and holding public hearing on the same. To facilitate this process, we request the Commission to extend time to file comments and suggestions on the present petition of TSGENCO.

4.6 Also, in this context it will not be out of place to draw attention of the Commission to Section 86 (3) of the Electricity Act, 2003: “The State Commission shall ensure transparency while exercising its powers and discharging its functions.” To ensure transparency the information that is accessible to the Commission shall also be accessible to all the stakeholders including the public/consumers of electricity. Hence, to ensure transparency while exercising its powers and discharging its functions the Commission is requested to direct the TSGENCO to make PPAs related to KTPS Stage VII and BTPS public and hold public hearing on the same.

4.7 Cost of boiler, turbine and generator (BTG) constitutes most important part of the power plant’s capital cost. It has to be seen that the provider/contractor for supply and erection of BTG is selected in a transparent and open competitive process for costs to be optimal. So BTG costs of both the power plants needs to be subjected to prudent check. Newspaper reports indicate that there were problems in selecting BTG contractor. This is particularly the case with BTPS plant. 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 machinery supplied by BHEL may have to be treated as a second hand. Also, as this BTG machinery was supplied under distressed circumstances (in a way conditions of over supply) its price should have been lower. It is also to be noted that this machinery was of sub-critical technology which had already been treated as obsolete technology and central government agencies issued strictures against its deployment. TSGENCO went against these trends and some how obtained permission to utilise them as a last chance. All these circumstances indicate that these BTG machinery should have been obtained at a considerably lower price. But exorbitant capital cost of BTPS raises doubts on procurement of this machinery. We request the Commission to subject BTG costs of both the new plants to prudent check.

4.8 Balance of Plant (BOP) package is the next important part of the capital cost of the power plant. While KTPS Stage VII is a brown field project BTPS is a green field project. Contractors of BOP package shall also be selected through transparent and competitive process and the same works shall be executed efficiently. Given its importance the Commission is expected to closely scrutinise BOP package costs of both the plants.

4.9 Costs related to land development where these plants are located is also important. Newspaper reports indicate that National Green Tribunal (NGT) had to intervene several times in issues related to land where BTPS is located. This also indicates less than efficient way of locating a power plant. The Commission has to see that costs resulting from such inefficiencies are not allowed as a part of capital costs of these new plants.

4.10 If coal transport and coal handling are taken up as separate activities apart from BOP package the same needs to be subjected to prudent check.

4.11 All other works/overheads taken up as a part of setting up the plants shall also be subjected to prudent checks.

4.12.1 Depending on the duration during which power plant is erected Interest During Construction (IDC) also becomes an important part of capital cost of these new power plants of TSGENCO. IDC shall be limited to scheduled commercial operation date only. Delay beyond this date shall not be reckoned while allowing IDC. BTPS units were supposed to be in operation by FY 2017, following the strictures of the central government agencies for adopting sub-critical technology. Despite these strictures COD of the first unit of BTPS is declared on 05-06-2020 and that of second unit on 07-12-2020. The fourth unit was expected to come on stream by March 2021. But there is no sign of COD of the third unit until now which was projected to be in January 2021, as mentioned in the present filing of TSGENCO. A news report in The Hindu (Hyderabad Edition) on 31 December, 2019 reported that the light-up of the boiler of third unit of BTPS was done and that unit would be operationalised commercially by March-end, 2020. These delays stand for inefficient execution of the plant. Costs due to these delays resulting from inefficient execution of the plant in the form of higher IDC shall not be allowed.

4.12.2 BTPS has been partially commissioned in FY20, and generation from the same has been accounted for in the control period considered. However, there was considerable delay in the commissioning of these units. Table 2 highlights this delay in commissioning of the units as per CEA's Broad Status Report for December 2020.

Table 2. Delay in commissioning of BTPS

BTPS Unit	Capacity (MW)	Original CoD	Actual/Expected CoD	Delay in months
Unit 1	270	Mar 17	Jun 20	39
Unit 2	270	May 17	Dec 20	43
Unit 3	270	Jul 17	Feb 21	43
Unit 4	270	Sep 17	Mar 21	42

As is evident from the above there have been significant delays in its construction. Additionally, the FGD for the station is also likely to be delayed as no agency has been finalized yet (according to CEA Broad Status Report Dec 2020). Delays in FGD construction may further delay operations of the unit. Due to such delays, the impact of Interest During Construction (IDC) on costs must be appropriately reported and scrutinised. IDC beyond the scheduled CoD should not be allowed.

4.12.3 There was also significant delay in executing KTPS Stage VII plant.

4.12.4 In this context it is highly relevant to note Hon'ble ATE's Judgment in Appeal No. 72 of 2010 as pointed out by TSERC in its Order dated 19-06-2017 in O.P. No. 9 of 2016 (Para 3.13.5). The ATE in its above Order at para 7.4 provided as under:

"7.4. The delay in execution of a generating project could occur due to following reasons:

i) due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc.

ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.

iii) situation not covered by (i) & (ii) above.

In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices."

4.12.5 Following the above order of ATE as the delay in execution of the plant was due to inefficiencies of the Generator, TSGENCO in the present context and contactors chosen by it all costs due to time over run has to be borne by the Generator and the same shall not be passed on to the TSDICOMs and in turn on electricity consumers in the state.

4.13 According to Section 7.19.1 of Regulation 1 of 2019 "The capital expenditure actually incurred … after the COD and up to the Cut-off date may be admitted by the Commission subject to prudent check…". According to the present filing of TSGENCO, COD of KTPS Stage VII is 26-12-2018. Cut-off date is two years from this date. According to the present filing of TSGENCO Rs. 884.50 Crore is projected to spent on KTPS Stage VII during FYs 2022, 23 and 24. As this expenditure is beyond the cut-off date the same shall not be allowed.

Adherence to revised environmental norms

5.1 As per the revised Environmental Norms 2015, all plants commissioned after 2017 are required to be compliant with the norms from start of operation. However, this is not clear with regard to the new capacity that has recently come online, Kothagudem TPS VII and BTPS.

5.2 In the case of Kothagudem TPS VII, the unit achieved CoD in December 2018, but there was marked delay in FGD installation. As of CEA Broad Status Report Oct 2020, construction was yet to begin on FGD for the unit. However, post that, there are no updates on the status of the FGD or on compliance to the norms. The unit has been generating as early as April 2019.

5.3 As mentioned earlier, the FGD for BTPS is also likely to be delayed as per CEA Broad Status Report Dec 2020. The two units that have achieved CoD last year have already started operating, and in this case as well, there is no reporting regarding FGD status or compliance to the norms.

5.4 Given the environmental implications and socio-economic impact, detailed status, cost impact, and proposed timelines for FGD installation and any other measure of compliance with the revised environmental norms must be provided.

Capital cost of existing plants:

6.1 The present filing of TSGENCO shows that during the control period 2019-24 Rs. 680.74 Crore is going to be spent on KTPP Stage II, over and above the capital cost already approved by the Commission. This is about 20% of the capital cost already approved by the Commission. No explanation is provided for this expenditure. As this expenditure is beyond the cut-off period the same shall not be allowed.

6.2 The present filing of TSGENCO shows that during the control period 2019-24 Rs. 120.41 Crore is going to be spent on Lower Jurala HES and Rs. 55.55 Crore is going to be spent on Pulichintala HES. No explanation is provided for this expenditure. As this expenditure is beyond the cut-off date the same shall not be allowed.

Computation of fixed charges:

7.1 The TSGENCO proposed adopting higher rate of interest and return on equity while calculating fixed charges. It adopted 12.05% as rate of interest and 15.5 to 16.5% as return on equity. As rate of interest has come down considerably in the financial markets in the country in the background of economic reforms, we request the Commission to adopt 10% as rate of interest. TSGENCO in its true up petition for 2014-19 (O.P. No. 5 of 2021) on page No. 30 provided a table with actual rates of interest. This Table shows that during the year 2018-19 out of 15 stations only 3 generation stations have shown rate of interest of 12.50%. In the case of 7 of these stations rate of interest was less than 10%. Given this declining trend in rate of interest we request the Commission to adopt 10% as rate of interest while computing fixed charges.

7.2 Usually, 2% is added to rate of interest to arrive at return on equity. 2% margin is allowed to account for risk taken by the investors. Accordingly, 12% may be adopted as return on equity.

7.3 In Para 12.4 of the present application of TSGENCO it is mentioned, “The RoE is considered as 16% in respect of KTPS Stage VII since it has been constructed within the time line…” But in Para 7. d. (p.3) of the true up petition it was mentioned that fixed charges of KTPS Stage VII were reduced due to differed CoD of the unit. While at one place TSGENCO is claiming that KTPS Stage VII was constructed within the timeline at another place it is stating that its CoD was differed. Given these contradictory statements the Commissions needs to ascertain the actual position.

Variable cost:

8.1 The Ministry of Coal has sanctioned 4.2 MTPA for BTPS in February 2018. The current tariff filings do not report the impact of this fuel source, fuel transportation cost, and other related parameters on the variable cost of the plant. Since the variable cost directly impacts consumer tariffs, such details must be transparently reported.

We request the Commission

To reassess the need for new power plants of TSGENCO
To make PPA related to new plants of KTPS Stage VII and BTPS public
To hold public hearings on PPAs with new plants of TSGENCO
To scrutinise capital costs of all power plants of TSGENCO
To scrutinise fixed cost claims of TSGENCO
To scrutinise variable costs of different thermal power plants of TSGENCO
To take our above submission on record.

Thanking you.

Sincerely yours,

M. Thimma Reddy,

Convenor.