TSGENCO Response to the Objections raised by Sri M.Venugopala rao, Senior Journalist & Convener, Centre for power studies.

SL.NO.		TSGENCO REPLY
1	In its filings, TS Genco has sought determination of generation tariff for 14 projects for the third control period 2014-19 out of which three projects are new ones. Determining tariff, interim or final, without determining permissible capital cost and consent to PPAs of projects concerned, is not a desirable practice. PPAs, capital cost and application for determination of tariff should be submitted project wise by the parties to the PPAs for the consideration of the Hon'ble Commission, as terms and conditions in PPAs and capital cost have inherent impact on tariff to be determined. In order to uphold the principles of transparency, public participation and accountability, public hearings should be held on the same by the Hon'ble Commission before issuing orders. The way TS Genco has submitted its applications for determination of tariffs of the projects concerned, without PPAs and details pertaining to capital cost incurred in all its respects, with procedures adopted for bidding processes and giving orders for purchases and implementation of the projects, fails to meet regulatory requirements of the Commission. If public hearings are to be meaningful and purposeful, all such details should be submitted to the Commission and made available to interested public to study the same and make constructive submissions. Submitting the subject application the say in which TS Genco has done, that, too, at the time of ARR submissions being made by the Discoms for the next Financial year, seems to have been done with a mischievous intent to rush through the regulatory process, without adequate time available to the interested public to get and study all relevant information and documents related thereto, as if the regulatory process and holding public hearings were a formality. When Genco is taking three to four years for implementation of projects, there is absolutely no justification in not signing PPAs with the Discoms and submitting the same for the consideration of the Hon'ble Commission well in time, preferably at the time of starting implementation of the projects. The PPAs submitted by TS Discoms and generators concerned relating to power purchase from Chattisgarh Discom and projects of NTPC and SCCL have been pending before the Hon'ble Commission for several months, despite the fact that documents submitted by them, especially by SCCL, run into hundreds	a)The capital cost was approved for all the existing projects of TSGENCO which are in operation and tariff was determined upto 2013-14 by Hon'ble APERC vide its order in OP No.15/2009, dtd 31.5.2014 . b)The Hon,ble TSERC admitted the fixed charges provisionally for the New projects of thermal and hydel stations in the Retail Tariff order 2016-17 subjected to the final tariff order for the control period 2014-19.

	of pages. This position shows how meticulously the relevant details need to be examined and further information required need to be sought and submitted. In this connection, it is to be noted that no public hearing has been held either by the erstwhile APERC in the undivided Andhra Pradesh or by the Hon'ble TSERC on PPAs of any one of the subject projects for which TS Genco is seeking tariff determination.	
2.	A Power Purchase Agreement (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 available for selecting generator/supplier of power and the legality and propriety of the procedure adopted for the same and (c) Propriety and legality of provisions in the PPA and their adverse impact on tariffs to be paid by t he consumers. Even for projects selected through t he process of competitive bidding, all these requirements need to be met. It is all the more imperative in the subject case, because power from the TS Genco's projects is being purchased by the Discoms straight away entering into PPAs, without adopting any competitive bidding for selecting the same. The subject application of TS Genco does not meet these requirements, before seeking objections and suggestions on the subject PPA, the Hon'ble Commission should have directed the Discoms and TS Genco to submit all relevant documents and made the same public, both for prudence check by itself and for making the proposed public hearing meaningful and purposeful. This is necessary to uphold the regulatory principles of transparency and accountability. Therefore, I request the Hon'ble Commission to direct TS Genco and the Discoms to submit PPAs, details of capital cost, procedures adopted for purchase and giving contracts for implementation of the project ts, delays, if any, in implementation of projects and resultant cost escalation etc., project-wise and make the same available to the interested public and hold public hearings on the same separately, especially in the case of new power projects of KTPP II, Lower Jurala HES and Pulichintala HES and other ongoing projects like Bhadradri and Yadadri as well.	a) TSGENCO Submitted the Detailed capital expenditure incurred in respect of KTPP-II, Lower Jurala HES and Pulichintala HES to the Hon'ble Commission .After prudent check by the Hon'ble commission the capitalization of project is to be finalized. The commission admitted the fixed charges provisionally for the new projects (KTPP-II, Lower Jurala HES and PCHES) along the existing stations in its retail tariff order FY2016-17.

3	The TS Discoms, in their ARR submissions, have projected requirement of energy of 54756 mu and availability of a surplus of 11,320 mu for year 2017-18. The surplus works out to 20.67% against the projected requirement. Moreover, availability of 807.31 MW as the share of TS Discoms (53.89%) from the four new IPPs (GVK extension, GMR Vemagiri, Konaseema and Gauthami with a total installed capacity of 1499 MW) is not considered by them in their ARR projections for the year 2017-18 on the ground that natural gas will continue to be unavailable to these projects. As and when supply of natural gas is recommenced to these projects, TS Discoms will get additional 5657.62 mu as their share from these projects with a PLF of 80%. In other words, in such an eventuality, the available surplus will be 16,977 mu or 31% of projected requirement for the year 2017-18. What will the Discoms do with such a huge surplus and how much of it would be backed down is not explained by the Discoms in their ARR proposals. It is reported that Oil and Natural Gas Corporation plans to increase output of natural gas at its Vashishta gas field, located in KG basic, from 1.1 million metric standard cubic meters per day (MMSCMD) to 5 MMSCMD by July this year. The scope for availability of a surplus of 16,977 mu or 31% of projected requirement for both the Discoms for the year 2017-18 confirms that the resource plan submitted by them till the end of 2018-19 has gone awry. Such abnormal surplus would lead to disastrous consequences, resulting in backing down, with installed capacities created remaining stranded proportionately and payment of fixed charges for non-generation under backing down, inability of the Discoms to compete and sell surplus power in the market and ultimately imposing huge and avoidable burdens of consumers of power. Therefore, I once again request the Hon'ble Commission to understand the seriousness of the situation and to direct the Discoms to submit long-term load forecast, resources plan and procurement plan, hold public hearings on the same and give its orders appropriately for orderly development of power sector in terms of purchase of power by the Discoms and ensuring competitive tariffs to consumers. Based on such a determination of requirement of power periodically, approvals	It is not pertaining to TSGENCO.

	for procurement of power from new projects, addition of new installed capacity periodically in consonance with requirement of demand growth determined should be given.	
4	As per the ARR filings of TS Discoms for the year 2017-18, the total cost of power purchase of 54,756 mu, based on availability and requirement, is Rs. 24,421 crore. The Cost for purchasing 15,810 mu from TS Genco and AP Genco is projected as Rs. 8802 crore. For purchasing 15,810 mu (28.87% of total purchase), TS Discoms have to pay Rs. 8802 crore. (36.04% of total power purchase cost). It indicates that the cost of power purchase includes costs of backing down which is not specified in the filings of ARR of TS Discoms. Even then, the higher cost of purchasing power from both the Gencos underlines the need for examining thoroughly all the components, including fixed and variable costs, that go into the tariffs proposed station-wise by TS Genco, in addition to higher capital costs of its projects.	It is under the purview of Hon'ble commission.
5	PPAs should contain, inter alia, schedule of CODs, clauses for penalty for delay in implementation of projects, etc. After financial closure, increase in interest during construction (IDC), financing charges (FC) and increase in other costs like overheads and price escalation after scheduled COD are invariably linked with delay in implementation of the project concerned. As such, such impermissible cost escalation should be determined and disallowed. The very purpose of agreeing to scheduled CODs in PPAs is to ensure that the projects are commissioned accordingly so that the benefit of running them by generating and supplying power t o the Discoms, which means their consumers, materializes in time and cost escalation due to delay is avoided. If CODs are delayed, it automatically increases IDC, and project cannot be commissioned, thereby depriving the procurers of supply of power with attendant problems. That is the reason why it is generally treated that time is the essence of an agreement. Therefore, the generating companies are obligated to adhere to agreed CODs and are not entitled to claim IDC, FC and increase in other costs like overheads and price escalation for the periods of delay. For the failures of	It is under the purview of Hon'ble commission.

	commission and omission of Genco, consumers of power should not be penalized.	
6	Article 10.8 of Regulation No. 1 of 2008 of the Commission says, inter alia, that "the Capital Cost as determined above, shall also include further capital expenditure incurred if any u p to the first financial year closing one year after the date of commercial operation of the last unit of the project, its stage or the unit, as the case may be, is admitted by the Commission". TS Genco has shown capital expenditures of some of the projects incurred after a long period of their commissioning. The details of the purposes for which such additional expenditures were incurred, during which periods and their justification should be furnished by the Genco.	For the new projects the capital cost shall be considered as per the Article 10.8 of Regulation No.1 of 2008. For existing stations of KTPS O&M, RTS B which are served their life more than forty years and functioning well above the country standards. Due to ageing of station units which are required to renovation and modernization in certain areas of the respective plants .There is need for capital investment to improve the generation and efficiency of the plant. TSGENCO has not claimed additional capitalization during 2009-14 as indicated in APERC Order dated 31.05.2014. TSGENCO submitted the additional capitalization to the Hon'ble commission in respect of KTPS O&M, RTS-B, KTPS-V and NSHES Complex. The Additional capitalization of KTPS-VI was not approved for the FY2013-14 since erstwhile APGENCO has not filed Additional capitalization FY2013-14. The additional capitalization of existing stations under R&M will be recovered through the tariff subjected to prudence check by the commission as per the article 3.1.2 (c) of PPA entered with DISCOMs on dt 22.12.2009
7	Capital costs of some of the projects of Genco are very high and impermissible. They should be subjected to prudence check and their permissibility determined as per applicable regulations and terms and conditions. There is every need to examine the audited accounts, reports of the Comptroller and Auditor General of India, etc. relating to implementation of projects of TS Genco and take the same into consideration as a part and parcel of prudence check by the Hon'ble Commission. Impermissible expenditures should be determined, disallowed and deducted from capital costs by the Commission, as has been the standard practice. For example, in its order dated 06.05.2015, CERC has reduced the capital cost from Rs. 7774.88 crore claimed by	It is under the purview of Hon'ble commission.

	Indira Gandhi Super Thermal Power Project (three units of 500 MW each of Aravali Power Company Pvt. Ltd. at Jhajjar in Haryana) claimed by the Company to Rs. 7322 crore (Rs. 4.88 crore per MW). The actual CODs of the three units of the projects were delayed by a few months. In its order dated 6.7.2015, CERC has reduced the capital cost from Rs. 3852.45 crore claimed by Koderma Thermal Power Station (Unit I of 500 MW of Damodar Valley Corporation in Jharkhand) to Rs. 2327 crore (Rs. 4.65 crore per MW). COD of the unit was delayed by 37.5 months). In its order dated 8.2.2016, CERC has reduced the capital cost from Rs. 5623.19 crore claimed by Vallur Thermal Power Project (two units of 500 MW each of NTPC Tamil Nadu Energy Company Ltd. At Vallur) to Rs. 5533.48 crore (Rs. 5.53 crore per MW). CODs of the units were delayed by 21.63 months and 24.5 months respectively.	
8	TS Genco has maintained that "This Hon'ble Commission may be pleased to consider and ado-pt the methodology of the CERC 2014 Regulation with respect to O&M expenses and year - on -year escalation thereof, and allow such expenses on such basis". In this connection, we would like to submit that Genco should be directed to confine its actual O&M expenses, including pay and allowances, within the normative values specified in applicable regulations. Similarly, if and when regulations of CERC are adopted by the Hon'ble Commission, they should be made applicable in all respects. In line with that, the threshold level of PLF of plants of TS Genco should be determined as 85% for payment of full fixed charges, especially for its relatively new power plants. Incentive should be permitted f or generation and supply above 85% PLF.	1) The O&M expenses provided in the Regulation 1 of 2008 was based upon the CERC 2004 Regulation and as amended in 2006 for the control period 2004-2009. **As per the Clause 10 of the APERC Regulation 1 of 2008 provides for the application of further amendments to the CERC Regulation upon adoption by the Hon'ble Commission by special or general order**. The CERC has subsequently issued revised Regulation for the control period 2009-2014 and 2014-2019 which, inter alia, provided also for allowing pay revision as the pay revision was due for Central PSUs during that period. 2) Hon'ble APERC admitted O&M expenses based on the CERC 2014 regulations for the control period 2014-19 and also admitting the pay revision 2014 and other fixed charge components are considered as per the 1 of 2008 APERC Regulations. 3) TSGENCO Submitted O&M expenses in its filing of OP No.26 of 2016 in line with APGENCO since the power being shared in respect the existing thermal stations of TSGENCO as per the G.O.Ms.No.20, Dt 08.05.2014(power share of TSDISCOMs @53.89% and APDISCOMs @ 46.11 %.)

9	The interest rate of 12.5% on loans taken by Genco is on the higher side and there is every scope for negotiating with the banks and financial institutions who sanctioned those loans to the projects of Genco to reduce the same. So is the case with interest rate of 14% on working capital which is unwarranted. TS Genco may explore the possibility of swapping loans to get benefit of relatively lower interest rates, especially in the light of demonetization of currency notes of higher denomination by the GoI and the resultant flushing of banks and financial institutions with enormous funds and the trend of their reducing interest rates on different kinds of loans.	a)The interest rate of 12.5% on loans taken by TSGENCO mainly from the REC and PFC which are the prime lenders to the power sectors. b)15.5% on Return on Equity was considered for the purpose of arriving RoCE c) RoCE rate proposed at 14% based on Debt-Equity ratio as determined at the beginning of the control period as per 12.1 of regulations i.e. as on 1.4.2014.
10	TS Genco is seeking additional interest on estimate basis on pension bonds and contribution to P&G Trust, as explained in its filing, as pass through. While approving the first transfer scheme, the then APERC in the undivided A.P. had permitted revaluation of the assets of AP Genco to provide for pension reserve funds which the erstwhile APSEB had not provided and maintained. The Commission had been liberal in allowing additional interest on a year to year basis in the tariff orders dated 24.3.20063 and 4.7.2013. Pension funds are supposed to be provided by the contributions of employees and managements and interest thereon earned periodically. As such, it is not fair to continue to impose such interest burdens on the consumers by allowing them as pass through periodically. The erstwhile APSEB failed in discharging its responsibility. In the transfer schemes, while unbundling the erstwhile APSEB, additional burdens in terms of pension liability had been imposed on AP Genco. Moreover, in the initial three-year period after unbundling, AP Genco was denied, as a matter of policy by the Government of A.P., about Rs. 1800 crore @ Rs. 600 crore per annum, from the permissible tariffs to it, thereby forcing it to cross-subsidize the consumers and reducing the subsidy to be provided by the Government. As the Hon'ble Commission is aware, the TS Government has been taking over 75% liabilities of TS Discoms under Uday Discom Assurance Yojana introduced by the Government of India. In view of the above explained submissions, I request the Hon'ble Commission to give a piece of advice to the Government of TS to take over the pension liabilities of TS Genco and settle the issue permanently. TS Genco, as a public sector utility of the State Government, deserves to be strengthened in all respects, encouraging it to take up and implement in	The pension liability was vested with APGENCO at the time of bifurcation of Erstwhile APSEB in 1999. APGENCO has issued bonds to Master Trust repayable over 30 years with floating rate of interest duly matching with actual pension commitment. The over and above the schedule interest shall be allowed as pass through in the tariff of GENCO on year to year basis as per the article 3.1.2(c) of PPA entered with DISCOMs on dt 22.12.2009 TSGENCO is meeting its Equity requirement from internal sources and borrowings. TSGENCO will take government support as and when required.

	efficient and exemplary manner ongoing and new projects and generate and supply power at prudent costs to meet flowing demand for power in the State. TS Genco needs to be provided budgetary allocations for meeting its equity requirements considerably, given priority in providing infrastructural facilities and allocation of fuels required for its power plants. Protecting and strengthening the interests of TS Genco means protecting the interests of the Sate and its people.	
11	Since the term of PPAs of some of the projects of TS Genco is confined to relatively shorter periods ranging from five to 10 years and as there is no provision for buyout in the PPAs, with the Genco and TS Discoms being the utilities of the Government of TS, the terms of PPAs of all projects of TS Genco should be determined as 35 years, as is the case already with some of the projects.	Erstwhile APGENCO entered the power purchase agreements with DISCOMs on dated 22.12.2009 and valid up to 31.03.2019 since the existing thermal and hydel stations are commissioned in the long back. For the new thermal stations, the PPA validity is 25 years from the COD of the Project and for the New hydel stations ,the PPA validity is 35 years from the COD of the last unit or project.
12	Since Discoms of TS and AP are parties to PPAs with TS Genco and as they have the responsibility of protecting larger interest of their consumers, they should not remain as disinterested entities without filing their objections and suggestions on the subject proposals of TS Genco. Therefore, I request the Hon'ble Commission to direct all the four Discoms, as respondents in the petition, to file their responses to the subject proposals of TS Genco, if they have not already done so.	It is under the purview of Hon'ble commission.

31/1/17

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TSGENCO Responses to the Objections raised by Sri M. Timma Reddy, Convenor, People's Monitoring Group on Electricity

O.P. No. 26 of 2016

1.1 The following suggestions and objections on the TSGENCO's application for determination of generation tariff and new stations' capital cost for FY 2014-19 are being submitted in response to public notice dated 27-12-2016.

1.2 Power procurement costs constitute substantial part of revenue requirement of electricity utilities in the state. In Telangana state for the financial year 2017-18 out of total revenue requirement of Rs. 31,930 crore power purchase costs constitute Rs. 24,421 crore. In other words, power purchase costs account for 76% of the revenue during the ensuing year. Out of this total power procurement costs Rs. 8,802 crore goes to power plants of TS and APGENCO accounting for 36% of the power procurement costs. Out of all sources of power procurement GENCO plants accounts for the highest share of power procurement cost for the power being supplied in the state. This crucial position of GENCO plants lends added importance to the present application of TSGENCO for determination of generation tariff.

Reply: It is under purview of Hon'ble commission

Make the PPAs public

2.1 The present filing by TSGENCO lists PPAs with the respect of various generation units, both old and new stations. These PPAs are not publicly available. No public hearings have taken place before the Commission approved these PPAs. The Petition lists the new PPAs as those of KTPP II and Hydel stations of Jurala and Pulichintala. There is need to hold public hearings on these PPAs separately.

Reply: It is under purview of Hon'ble commission

2.2 News paper reports indicate that work on Bhadradri and Yadadri plants of TSGENCO is going on. The Union Government is reported to have approved the Bhadradri plant. In the case of Yadadri plant the Environment Appraisal Committee (EAC) indicated that there was no need for further public hearing and asked to just publish revised Environmental Impact Assessment (EIA) report. Even after these developments there is no sign of PPAs for procurement from these plants. Besides these two plants TSGENCO has also taken up KTPS VII unit. TSTRANSCO's application for transmission tariff mentioned that KTPS VII would be connected to the TRANSCO's grid during 2017-18. But details related to this plant are not included in TSGENCO's application.With out approval of the Commission for these PPAs TSGENCO has gone ahead with erection of the plants. When the state government approached the centre for various approvals for these plants the Union ministry of power indicated that there was no need for these plants in the background of surplus power in the country. But some how, the state government has obtained some approvals for these plants. Recent CEA report on All India Electricity Plan indicated that no new thermal power plants would be needed in the country until 2027. The ARR filings of TSDICOMs for the FY 2017-18 show that more than 10,000 MU of surplus power is available with them. The need for the above two plants needs to be reassessed in the background of CEA report as well as surplus power situation in the state.

Reply: As per the 18th Electric Power survey (EPS) by CEA the installed capacity required in the State of Telangana by 2018-19 would be 17041MW to meet the peak Demand of 13108MW. The capacity addition by TSGENCO is to meet the increased demand for power in Telangana State.

TSGENCO has filed tariff application for determination tariff for the existing power stations and new power stations (KTPP-II, LJHES and PCHES).It is to inform that TSGENCO will file the application for determination of tariff for KTPS –VII stage 120 days in advance before COD of the unit for approval Hon'ble commission.

2.3 Under O.P. No. 26 of 2016 TSGENCO has applied for determination of generation tariff and new stations' capital cost for FY 2014-19. The new generation stations include KTPP II. Its PPA is reported to be signed on 27-01-2016; CoD is declared on 24-03-2016 and will be valid up to 23-030-2041. We request the Commission to hold public hearing on PPA in the case of KTPP II and KTPS VI plants.

Reply: It is under purview of Hon'ble commission

2.4 The present filing does not include information on performance of the plants during the year 2016-17.

Reply: TSGENCO submitted filings for the 3rd control period 2014-19 for determination of generation Tariff.

3.1 The filings show that capital expenditure to the tune of Rs. 126.60 crore was incurred on old thermal plants during 2014-15 and Rs. 89.91 crore during 2015-16. In the case of Nagarjuna Sagar Hydel plant Rs. 47.06 crore was incurred during 2014-15 and Rs. Rs. 608.46 crore during 2015-16. There are no details of similar expenditure during 2016-17. According to Section 10.8 of Regulation 1 of 2008 "…The Capital Cost as determined above, shall also include further capital expenditure incurred if any up to the first financial year closing one year after the date of commercial operation of the last unit of the project, its stage or the unit…". CoD of KTPS VI was declared on 23-10-2011 and CoDs of other thermal plans were declared much earlier. CoD of Nagarjuna Sagar Hydel plant was declared on 27-09-1992. Following the above Regulation the additional capital costs claimed as mentioned above shall not be allowed. Further, no explanation was provided for the additional capital expenditure. This is particularly the case with Nagarjuna Sagar Hydel plant where additional capital cost is more than Rs. 650 crore forming 37% of total capital cost of the plant.

Reply:

a) For the new projects, the capital cost shall be computed as per the Article 10.8 of Regulation No.1 of 2008.

b) For existing stations of KTPS O&M, RTS B which are served their life more than forty years and functioning well above the country standards. Due to ageing of station units which are required renovation and modernization in certain areas of the respective plants .There is need for capital investment to improve the generation and efficiency of the plant. The additional capitalization of existing stations under R&M will be

recovered through the tariff subjected to prudence check by the commission as per the article 3.1.2 (c) of PPA entered with DISCOMs on dt 22.12.2009

c) **TSGENCO has not filed additional capitalization during 2009-14 as indicated in APERC Order dated 31.05.2014.**

d) **TSGENCO submitted the additional capitalization to the Hon'ble commission in respect of KTPS O&M, RTS-B, KTPS-V and NSHES Complex. The Additional capitalization of KTPS-VI was not approved for the FY2013-14 since erstwhile APGENCO has not filed Additional capitalization FY2013-14. In respect of NSHES, the NSTPD dam cost was added to the NSHES which comes under additional capitalization**

3.2 The CAG in its Report for the year 2010 examined KTPP – I plant and found excess spending was Rs. 555.48 Crore (26.74% of the plant's capital cost). Capital cost of other power plants of TSGENCO shall be assessed on similar lines and excess spending shall not be allowed to be recovered under generation tariff.

Reply: Hon'ble APERC approved the capital cost of KTPP-I in OP.15 of 2009 dated 31.05.2014. TSGENCO submitted the capital cost of the projects to the Hon'ble commission for approval.

3.3.1 The CAG Report for the year ending March 2014 found that selection of costlier pipes for raw water pipeline of KTPP Stage-II resulted in avoidable excess cost of Rs. 43.30crore. We request the Commission not to allow this excess expenditure to be claimed through generation tariff. We request the Commission to hold public hearings on PPAs with the new power plants of TSGENCO.

Reply: Considering the advantage of power saving, superior quality, long life of DI pipe lines and entire replacement cost of MS pipes after meeting the life time of 25 years, DI pipes are adopted.

3.3.2 According to the present filing, capital cost of KTPP II at the time of CoD was Rs. 3,237.85 crore and Rs. 1,096.26 crore was spent after the CoD taking the total capital cost to Rs. 4,334.11 crore. Significantly, more than 25% of the total capital cost is reported to be incurred after the CoD. This raises doubts about prudence of this capital cost.

Reply: It is inform that an amount of Rs 3237.85Crs is capitalized as on date of COD (24.03.2016) as against the actual expenditure incurred Rs.3465.54Crs for the FY 2015-16.The balance works of KTPP II under progress as on date of COD and the details of balance capital expenditure will be submitted to the commission for approval. It is also to mention that about Rs.3820Crs expenditure all ready incurred by the end of December 2016.

3.3.3 Per MW capital cost of KTPP II stands at Rs. 7.22 crore. This is one of the highest in the country and this itself demands closer examination of capital cost of this plant. In the context of determination of capital cost of the new power plant it is important to take in to account recent orders of CERC related to capital cost determination of coal based thermal power plants. In its order dated 6.5.2015, CERC has reduced the capital cost from Rs.7774.88 crore claimed by Indira Gandhi Super Thermal Power Project (three units of 500 MW each of Aravali Power Company Pvt. Ltd. at Jhajjar in Haryana) claimed by the Company to Rs.7322 crore (Rs.4.88 crore per MW).In its order dated 6.7.2015, CERC has reduced the capital cost from Rs.3852.45 crore claimed by Koderma Thermal Power Station (unit I of 500 MW of Damodar Valley Corporation in Jharkhand) to Rs.2327 crore (Rs.4.65 crore per MW). In its order dated 8.2.2016, CERC has reduced the capital cost from Rs.5623.19 crore claimed by Vallur Thermal Power Project (two units of 500 MW each of NTPC Tamil Nadu Energy Company Ltd. at Vallur) to Rs.5533.48 crore (Rs.5.53 crore per MW). Even if we take the latest order of CERC the capital cost of KTPP II shall not exceed Rs. 5.60 crore per MW.

Reply: For every thermal power project the gestation period and capital cost vary from time to time because of several constraints. The total project cost of KTPP –II is Rs.4334.11 Crs inclusive of Railway track for coal handing system, additional coal handing plant, wet ash handling system and land towards ash pond and construction of ash pond and RR package costs worth of Rs.584Crs which are additional infrastructure facilities common for KTPP-I &II and are essential for operation of the Units. However the details of capital expenditure incurred will be provided to the Hon'ble commission for approval. It is also to mention that the per MW cost of the projects may vary project to project depending on the various factors involved during the execution of the works.

3.4 The threshold PLF for payment of incentives shall be 85% in keeping with new technology and Regulations of CERC. APERC Regulations on generation tariff is not revised after 2008 and TSERC is requested to revise the said Regulation in keeping with new technology as well as the revised Regulations of CERC.

Reply: It is under purview of Hon'ble commission

Fixed charges

4.1 Fixed charges claimed by TSGENCO need to be closely scrutinised. Fixed charges Claimed by TSGENCO are higher than that mentioned in TSDISCOMs filings for the year 2017-18. A comparative picture is provided in the following table for some Plants as an example.

Plant	Fixed charges according to TSGENCO (Rs, Cr)	Fixed charges according to TSDISCOMs (Rs, Cr)
KTPS – V	315.31	311.99
KTPS – VI	568.03	564.51
KTPP – II	1108.66	1058.95
Lower Jurala HES	411.88	395.23
Pulichintala	130.72	130.65

Reply: The fixed charges which are furnished in the tariff filings for the FY2017-18 in the control period 2014-19 in respect of KTPS-V,KTPS-VI,KTPP-II, LJHES

&Pulichintala is high compared to the ARR filings by DISCOMS due to the difference of additional capitalisation for FY2014-15&2015-16.

Variable charges

(Rs./Unit)

Power Plant	2014-15		2015-16		2016-17	
	Present filing	DISCOMs 2016-17 filing	Present filing	DISCOMs 2016-17 filing	Present filing	Tariff Order
KTPS –ABC	2.67	2.57	2.57	2.60	2.87	2.73
KTPS – V	2.19	2.08	2.21	2.19	2.19	2.02
KTPS – VI	3.38	3.01	2.89	3.10	2.98	2.69
RTS – B	2.63		3.03	2.71	3.53	3.10
KTPP – I	2.47	2.28	2.68	2.50	2.73	2.61
KTPP – II	--		--		2.68	2.61

4.2 A comparison of variable charges for the financial year 2016-17 as provided in the present filing and Tariff Order shows that variable charges quoted in the present filing are higher than the variable charges as approved by the Commission through the Tariff Order. No reasons were provided for higher variable charges. TSGENCO need to explain whether changes in fuel prices or GCV or heat rate led to these changes.

Reply: The variable cost of TSGENCO Thermal Stations submitted to Hon'ble commission is based on the weighted average cost for the Q1 period of Fuel Cost Adjustment FY2016-17 (April-16, May-16&June-16)

4.3 TSERC Order for FY 2015-16 did not provide plant wise variable charges. There is no Tariff Order for the FY 2014-15. For the years 2014-15 and 2015-16 TSGENCO claims are compared with information provided in TSDISCOMs' tariff filing for the FY 2016-17. For these two years also variable charges claimed by TSGENCO are generally higher than those mentioned by TSDISCOMs. These differences between the filings by TSGENCO on one side and TSDISCOMs on the other need to be examined. We request the Commission to direct TSGENCO to submit complete information on changes in variable charges.

Reply: The variable cost of TSGENCO Thermal Stations submitted to Hon'ble commission is based on the yearly weighted average cost of FCA FY2014-15 and 2015-16 (Q1, Q2, and Q3&Q4).

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TSGENCO Responses to the Objections raised by Sri D. Narasimha Reddy,

201, Arti residency, LN Colony,
Saidabad, Hyderabad – 500059

O.P. No. 26 of 2016

1.1 The following suggestions and objections on the TSGENCO's application for determination of generation tariff and new stations' capital cost for FY 2014-19 are being submitted in response to public notice dated 27-12-2016.

1.2 Power procurement costs constitute substantial part of revenue requirement of electricity utilities in the state. In Telangana state for the financial year 2017-18 out of total revenue requirement of Rs. 31,930 crore power purchase costs constitute Rs. 24,421 crore. In other words, power purchase costs account for 76% of the revenue during the ensuing year. Out of this total power procurement costs Rs. 8,802 crore goes to power plants of TS and APGENCO accounting for 36% of the power procurement costs. Out of all sources of power procurement GENCO plants accounts for the highest share of power procurement cost for the power being supplied in the state. This crucial position of GENCO plants lends added importance to the present application of TSGENCO for determination of generation tariff.

Reply: It is under purview of Hon'ble commission

1.3 TSGENCO has also taken up KTPS VII unit. TSTRANSCOs application for transmission tariff mentioned that KTPS VII would be connected to the TRANSCO's grid during 2017-18.But details related to this plant are not included in TSGENCO's application.

Reply: TSGENCO will file the application for determination of tariff 120 days in advance before COD of the unit for approval Hon'ble commission.

1.4 The present filing does not include information on performance of KTPP II and KTPS VI plants during the year 2016-17.

Reply: TSGENCO submitted filings for the 3rd control period 2014-19 for determination of generation Tariff.

Capacity addition to TSGENCO

2.1 There has to be complete reassessment of erecting new power plants by TSGENCO.There assessment should be based on parameters of cost, sustainability and technology.

Reply: It is under purview of Hon'ble commission

2.2 When the state government approached the union government for various approvals for Yadadri and Bhadradri plants the union ministry of power indicated that there was no need for these plants in the background of surplus power in the country. Yet, the State government seems to have ignored this and has obtained some approvals for these plants. Recent CEA report on All India Electricity Plan indicated that no new thermal power plants would be needed in the country until 2027. The ARR filings of TSDISCOMS for the FY 25017-18 show that more than 10,000 MU of surplus power is available with them. The need for the above two plants needs to be reassessed in the background of CEA report as well as surplus power situation in the State.

Reply: As per the 18th Electric Power survey (EPS) by CEA the installed capacity

required in the State of Telangana by 2018-19 would be 17041MW to meet the peak Demand of 13108MW. The capacity addition by TSGENCO is to meet the increased demand for power in Telangana State.

TSGENCO has filed tariff application for determination tariff for the existing power stations and new power stations (KTPP-II ,LJHES and PCHES)

PPAs in public domain

3.1 The present filing by TSGENCO lists PPAs with the respect of various generation units, both old and new stations. These PPAs are not publicly available. No public hearings have taken place before the Commission approved these PPAs. The Petition lists the new PPAs as those of KTPP II and Hydel stations of Jurala and Pulichintala. There is need to hold public hearings on these PPAs separately.

Reply: It is under purview of Hon'ble commission

3.2 Information in the public domain indicate that work on Bhadradri and Yadadri plants of TSGENCO is going on. The union government is reported to have approved the Bhadradri plant. In the case of Yadadri plant the Environment Appraisal Committee (EAC) indicated that there was no need for further public hearing and asked to just publish revised Environmental Impact Assessment (EIA) report. Even after these developments there is no sign of PPAs for procurement from these plants. Without approval of the commission for these PPAs TSGENCO has gone ahead with erection of the Plants.

Reply: It is not applicable to OP No.26 of 2016.

3.3 Under O.P. No. 26 of 2016 TSGENCO has applied for determination of generation tariff and new stations' capital cost for FY 2014-19. The new generation stations include KTPP II. Its PPA is reported to be signed on 27-01-2016; CoD is declared on 24-03-2016 and will be valid up to 23-030-2041. We request the Commission to hold public hearing on PPA in the case of KTPP II and KTPS VI plants.

Reply: It is under purview of Hon'ble commission

Evaluated capital cost

4.1 The filings show that capital expenditure to the tune of Rs. 126.60 crore was incurred on old thermal plants during 2014-15 and Rs. 89.91 crore during 2015-16. In the case of Nagarjuna Sagar Hydel plant Rs. 47.06 crore was incurred during 2014-15 and Rs. Rs. 608.46 crore during 2015-16. There are no details of similar expenditure during 2016-17. According to Section 10.8 of Regulation 1 of 2008 "…The Capital Cost as determined above, shall also include further capital expenditure incurred if any up to the first financial year closing one year after the date of commercial operation of the last unit of the project, its stage or the unit…". CoD of KTPS VI was declared on 23-10-2011 and CoDs of other thermal plans were declared much earlier. CoD of Nagarjuna Sagar Hydel plant was declared on 27-09-1992. Following the above Regulation the additional capital costs claimed as mentioned above shall not be allowed. Further, no explanation was provided for the additional capital expenditure. This is particularly the case with Nagarjuna Sagar Hydel plant where additional capital cost is more than Rs. 650 crore forming 37% of total capital cost of the plant.

Reply:

a) **For the new projects, the capital cost shall be computed as per the Article 10.8 of Regulation No.1 of 2008.**

b) **For existing stations of KTPS O&M, RTS B which are served their life more than forty years and functioning well above the country standards. Due to ageing of station units which are required renovation and modernization in certain areas of the respective plants .There is need for capital investment to improve the generation and efficiency of the plant. The additional capitalization of existing stations under R&M will be recovered through the tariff subjected to prudence check by the commission as per the article 3.1.2 (c) of PPA entered with DISCOMs on dt 22.12.2009**

c) **TSGENCO has not claimed additional capitalization during 2009-14 as indicated in APERC Order dated 31.05.2014.**

d) **TSGENCO submitted the additional capitalization to the Hon'ble commission in respect of KTPS O&M, RTS-B, KTPS-V and NSHES Complex. The Additional capitalization of KTPS-VI was not approved for the FY2013-14 since erstwhile APGENCO has not filed Additional capitalization FY2013-14. In respect of NSHES, the NSTPD dam cost was added to the NSHES which comes under additional capitalization**

4.2 The CAG in its Report for the year 2010 examined KTPP – I plant and found excess spending was Rs. 555.48 Crore (26.74% of the plant's capital cost). Capital cost of other power plants of TSGENCO shall be assessed on similar lines and excess spending shall not be allowed to be recovered under generation tariff.

Reply: Hon'ble APERC approved the capital cost of KTPP-I in OP.15 of 2009 dated 31.05.2014. TSGENCO submitted the capital cost of the projects to the Hon'ble commission for approval.

4.3 The CAG Report for the year ending March 2014 found that selection of costlier pipes for raw water pipeline of KTPP Stage-II resulted in avoidable excess cost of Rs. 43.30 crore. We request the Commission not to allow this excess expenditure to be claimed through generation tariff. We request the Commission to hold public hearings on PPAs with the new power plants of TSGENCO.

Reply: Considering the advantage of power saving, superior quality , long life of DI pipe lines and entire replacement cost of MS pipes after meeting the life time of 25 years , DI pipes are adopted.

4.4 According to the present filing, capital cost of KTPP II at the time of CoD was Rs. 3,237.85 crore and Rs. 1,096.26 crore was spent after the CoD taking the total capital cost to Rs. 4,334.11 crore. Significantly, more than 25% of the total capital cost is reported to be incurred after the CoD. This raises doubts about prudence of this capital cost.

Reply: It is inform that an amount of Rs 3237.85Crs is capitalized as on date of COD (24.03.2016) as against the actual expenditure incurred Rs.3465.54Crs for the FY 2015-16.The balance works of KTPP II under progress as on date of COD and the details of balance capital expenditure will be submitted to the commission for approval. It is also to mention that about Rs.3814Crs expenditure already incurred by the end of December 2016.

4.5 Per MW capital cost of KTPP II stands at Rs. 7.22 crore. This is one of the highest in the country and this itself demands closer examination of capital cost of this plant. In the context of determination of capital cost of the new power plant it is important to take in to account recent orders of CERC related to capital cost determination of coal based thermal power plants. In its order dated 6.5.2015, CERC has reduced the capital cost from Rs.7774.88 crore claimed by Indira Gandhi Super Thermal Power Project (three units of 500 MW each of Aravali Power Company Pvt. Ltd. at Jhajjar in Haryana) claimed by the Company to Rs.7322 crore (Rs.4.88 crore per MW).In its order dated 6.7.2015, CERC has reduced the capital cost from Rs.3852.45 crore claimed by Koderma Thermal Power Station (unit I of 500 MW of Damodar Valley Corporation in Jharkhand) to Rs.2327 crore (Rs.4.65 crore per MW). In its order dated 8.2.2016, CERC has reduced the capital cost from Rs.5623.19 crore claimed by Vallur Thermal Power Project (two units of 500 MW each of NTPC Tamil Nadu Energy Company Ltd. at Vallur) to Rs.5533.48 crore (Rs.5.53 crore per MW). Even if we take the latest order of CERC the capital cost of KTPP II shall not exceed Rs. 5.60 crore per MW.

Reply: For every thermal power project the gestation period and capital cost vary from time to time because of several constraints. The total project cost of KTPP –II is Rs.4334.11 Crs inclusive of Railway track for coal handing system, additional coal handing plant, wet ash handling system and land towards ash pond and construction of ash pond and RR package costs worth of Rs.584Crs which are additional infrastructure facilities common for KTPP-I &II and are essential for operation of the Units. However the details of capital expenditure incurred will be provided to the Hon'ble commission for approval. It is also to mention that the per MW cost of the projects may vary project to project depending on the various factors involved during the execution of the works.

4.6 The threshold PLF for payment of incentives shall be 85% in keeping with new technology and Regulations of CERC. APERC Regulations on generation tariff is not revised after 2008 and TSERC is requested to revise the said Regulation in keeping with new technology as well as the revised Regulations of CERC.

Reply: It is under purview of Hon'ble commission

Evaluated Fixed charges

5.1 Fixed charges claimed by TSGENCO need to be closely scrutinised. Fixed charges claimed by TSGENCO are higher than that mentioned in TSDISCOMs filings for the year 2017-18. A comparative picture is provided in the following table for some plants as an example.

Plant	Fixed charges according to TSGENCO (Rs, Cr)	Fixed charges according to TSDISCOMs (Rs, Cr)
KTPS – V	315.31	311.99
KTPS – VI	568.03	564.51
KTPP – II	1108.66	1058.95
Lower Jurala HES	411.88	395.23
Pulichintala	130.72	130.65

Reply: The TSGENCO fixed charges which are furnished in the tariff filings for the FY2017-18 in the control period 2014-19 in respect of KTPS-V,KTPS-VI,KTPP-II,LJHES & Pulichintala is high compared to the ARR filings by DISCOMS due to the difference of additional capitalisation for FY2014-15&2015-16

Variable charges

(Rs./Unit)

Power Plant	2014-15		2015-16		2016-17	
	Present filing	DISCOMs 2016-17 filing	Present filing	DISCOMs 2016-17 filing	Present filing	Tariff Order
KTPS –ABC	2.67	2.57	2.57	2.60	2.87	2.73
KTPS – V	2.19	2.08	2.21	2.19	2.19	2.02
KTPS – VI	3.38	3.01	2.89	3.10	2.98	2.69
RTS – B	2.63		3.03	2.71	3.53	3.10
KTPP – I	2.47	2.28	2.68	2.50	2.73	2.61
KTPP – II	--		--		2.68	2.61

6.1 A comparison of variable charges for the financial year 2016-17 as provided in the present filing and Tariff Order shows that variable charges quoted in the present filing are higher than the variable charges as approved by the Commission through the Tariff Order. No reasons were provided for higher variable charges. TSGENCO need to explain whether changes in fuel prices or GCV or heat rate led to these changes.

Reply: The variable cost of TSGENCO Thermal Stations submitted to Hon'ble commission is based on the weighted average cost for the Q1 period of Fuel Cost Adjustment FY2016-17 (April-16, May-16&June-16)

6.2 TSERC Order for FY 2015-16 did not provide plant wise variable charges. There is no Tariff Order for the FY 2014-15. For the years 2014-15 and 2015-16 TSGENCO claims are compared with information provided in TSDISCOMs' tariff filing for the FY 2016-17. For these two years also variable charges claimed by TSGENCO are generally higher than those mentioned by TSDISCOMs. These differences between the filings by TSGENCO on one side and TSDISCOMs on the other need to be examined. We request the Commission to direct TSGENCO to submit complete information on changes in variable charges.

Reply: The variable cost of TSGENCO Thermal Stations submitted to Hon'ble commission is based on the yearly weighted average cost of FCA FY2014-15 and 2015-16 (Q1, Q2, and Q3&Q4).

31/1/17

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TSGENCO Responses to PCKL(Power company of Karnataka Limited)

S.NO		TSGENCO REPLY
1	**Capital Cost:-** **a)** In the petition filed by TSGENCO before Hon'ble TSERC has indicated Gross Fixed Asset as on 31.3.2014 was Rs. 702.76 crores for 234 MW Priyadarshini Jurala Hydro Electric Scheme (6x39 MW). PCKL on behalf of ECOMs of Karnataka/State of Karnataka deposited Rs. 70 Crores on 6th April 2013 to APGENCO/TSGENCO i.e., 50% of power block cost of Jurala Hydro Electric Scheme. Similarly, as agreed in the meeting, GoAP has also shared 50% of power block cost of Jurala Hydro Electric Scheme. The amount contributed by the both States like Andhra Pradesh and Karnataka has not been reduced from the Gross block of Asset of the above project. **Background** In the meeting held between Chief Minister of Andhra Pradesh and the Chief Minister of Karnataka at Bangalore on 4th August, 1978, it was agreed that Government of Andhra Pradesh and the Government of Karnataka would go ahead with the proposed Priyadarshini Jurala Project. Jurala Hydro Electric Project is a multi-purpose project, mainly for Irrigation cum Hydro-power generation across Krishna river, near Revulapally Village in Mehaboob Nagar District of Andhra Pradesh with an installed capacity of 6x39.1 MW (234.6 MW) and annual energy generation of 364 MU. The Techno-Economic Clearance for Priyadarshini Jurala Hydro Electric Project was accorded by the CEA in its letter No.3/112/91/PAC/587-87 dated 26.3.1992 (Revised CEA letter No. 2/AP/GENC/91-PAC/6859-78 dated 24.7.2002) and the Environmental Clearance by the MOEF vide letter No. J11016/10/84-1/8.1 Dated 21.4.1994. The Government of Andhra Pradesh have already implemented the Irrigation component of the project and the cost towards Power Block was Rs. 143.00 Crores (Rupees One Hundred and forty three crores only), that is the cost proportional to the benefit.	TSGENCO has considered GFA as on 31.03.2014 as Rs.702.76 Crs. for Priyadarshini Jurala Hydro Electric Project which is exclusive of cost of power block.

	This cost has to be shared by the State of Karnataka and the State of Andhra Pradesh. The State of Karnataka has agreed to Pay Rs 70.00 Crores (Rupees Seventy crores only). Further both the States agreed that Tariff shall be fixe don actual completed cost of the Hydro project including IDC excluding the cost of power Blocks. Accordingly, PCKL on behalf of the ESCOMs of Karnataka/Government released amount of Rs. 70 crores on 6th April 2013. In the petition, Petitioner ha not reduced the amount contributed by both States from cost of power blocks. The same needs to be considered before arriving t he Gross Block of Assets.	
	b) As per the Regulation 10.8 of the APERC (Terms and Conditions, 2008) provides that the capital cost as determined above, shall also include further capital expenditure incurred if any upto the first financial year closing one year after the date of commercial operation of the last unit of the project, its stage or the units, as the case may be is admitted by the Commission. It shall also include capitalized initial spares subject to the following ceiling norms as a percentage of the actual cost of the machinery and equipments. The actual (original cost) as on the cut-off date as admitted by the Commission.	TSGENCO submitted additional capital expenditure of Rs. 32.61 Crs for the control period 2009-14, Rs.1.78 Crores for the year 2014-15 and Rs.1.68 Crores for the year 2015-16 for the approval of the Hon'ble Commission.
	c) Capital cost of the project shall be inclusive of and shown separately with supporting evidence the expenditure if any, likely to be capitalized within the original scope of work after the date of commercial operation, and no separate claim for any additional capitalization shall be entertained. Subject to prudence check Capital Expenditure of the following nature actually incurred after the cut-off date may be admitted by the Commission. i. Deferred liabilities relating towards works/services within the	TSGENCO submitted additional capital expenditure of Rs. 32.61 Crs for the control period 2009-14, Rs.1.78 Crores for the year 2014-15 and Rs.1.68 Crores for the year 2015-16 for the approval of the Hon'ble Commission.

	original scope of work. ii. Liabilities to meet award of arbitration or for compliance of the order or decree of the Court. iii. On account of change in law iv. Any additional works/services that became necessary for efficient and successful operation of the generating station, but not included in the original project cost; and v. Deferred works relating to ash pond or ash handling system in the original scope of work.	
	d) The additional capital expenditure incurred by TSGENCO as per the clause 10.8 shall be allowable up to the first financial year closing on year after the date of commercial operation of the last unit of the project. The last unit of the project commissioned on 4.8.2011. The additional capital expenditure incurred for the period 5.8.2011 to 31.3.2012 and 1.4.2012 to 31.3.2013 shall be allowed subject to the costs which are in the original scope of work. The same needs to be furnished by t he TSGENCO to the respondents.	TSGENCO submitted additional capital expenditure of Rs. 32.61 Crs for the control period 2009-14, Rs.1.78 Crores for the year 2014-15 and Rs.1.68 Crores for the year 2015-16 for the approval of the Hon'ble Commission.
	e) The Petitioner further has claimed Rs. 32.61 Crores for the period 2009-14, Rs. 1.78 Crores for the year 2014-15 and Rs. 1.68 Crores for the year 2015-16 as additional capital expenditure, the same may be disallowed as per the clause 10.8 of the APERC Regulation 2008.	TSGENCO submitted additional capital expenditure of Rs. 32.61 Crs for the control period 2009-14, Rs.1.78 Crores for the year 2014-15 and Rs.1.68 Crores for the year 2015-16 for the approval of the Hon'ble Commission.
	f) The original approved estimated cost was Rs. 547 crore. In the petition, petitioner has shown Rs. 702 Crore as at the end of 31.3.2014 and subsequently further increased to Rs. 706.22 Crores as on 31.3.2016. The original approved estimated cost to be considered as Gross block of assets.	Hon'ble APERC approved the capital cost of the project for the period 2009-13 as Rs.670.55 Crs in OP 15 Dt: 31.05.2014. Additional capital expenditure of Rs. 32.61 Crs for the control period 2009-14, Rs.1.78 Crores for the year 2014-15 and Rs.1.68 Crores for the year 2015-16 for the approval of the Hon'ble Commission.

<table>
<tr><td></td><td></td><td></td></tr>
<tr><td>2</td><td><u>Operation & Maintenance Expenses</u>

As per clause 12.3.2. of APERC (Terms and Conditions for determination of Tariff for supply of Electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensee) Regulation 2008 provides that “the base operation and maintenance expenses shall be 1.5 per cent of the approved original cost of the project, in the year of commissioning, and shall be escalated at a rate of 4 per cent per annum for the subsequent years”.

The claim made by Petitioner is not in line with the above Regulation, hence be disallowed. The excess claims made over and above the charges applicable as per the regulation shall not be considered for the fixed charges calculation. The charges applicable as per the above regulation is as below.

Amount in Rs.Crore.<table><tr><td>Particulars</td><td>2013-14*</td><td>2014-15</td><td>2015-16</td><td>2016-17</td><td>2017-18</td><td>2018-19</td></tr><tr><td>O&M Expenses</td><td>13.71</td><td>14.26</td><td>14.83</td><td>15.42</td><td>16.04</td><td>16.68</td></tr></table>
* Commission allowed Rs. 13.71 Crores for 2013-14 vide order dated 31.05.2014.</td><td>a) The O&M expenses provided in the Regulation 1 of 2008 was based upon the CERC 2004 Regulation and as amended in 2006 for the control period 2004-2009. As per the Clause 10 of the APERC Regulation 1 of 2008 provides for the application of further amendments to the CERC Regulation upon adoption by the Hon’ble Commission by special or general order. The CERC has subsequently issued revised Regulation for the control period 2009-2014 and 2014-2019 which, inter alia, provided also for allowing pay revision as the pay revision was due for Central PSUs during that period.

b) Hon’ble APERC admitted O&M expenses based on the CERC 2014 regulations for the control period 2014-19 and also admitting the pay revision 2014 and other fixed charge components are considered as per the 1 of 2008 APERC Regulations</td></tr>
<tr><td>3</td><td><u>Depreciation</u>

As per clause 12.2(b) of APERC Regulation (Terms and Conditions for determination of Tariff for supply of Electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensee) Regulation 2008 provides that Depreciation shall</td><td>Depreciation amounts was considered as per erstwhile APERC order dated 31.05.2014 in OP 15 of 2009.</td></tr>
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	be computed in the following manner, namely; i.The value base for the purpose of depreciation shall be the historical cost of the asset; ii. Depreciation shall be calculated annually, based on straight line method over the useful life of the asset and at the rates prescribed in Ministry of Power notification dated 21.3.1994, as amended till date. The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing the historical cost of the asset. iii. On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset. iv. Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation hall be charged on pro rata basis. The 90% of the cost of power block shall be after reducing the amount contributed by both the states. The depreciation shall calculated for the reduced amount only.	
4	<u>Return on Capital Employed (ROCE)</u> As per clause 12.1 of the APERC (Terms and Conditions for determination of Tariff for supply of Electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensee) Regulation 2008, provides that ROCE is equal to sum of a. Original Capital Cost less Accumulated depreciation, and;	a)The interest rate of 12.5% on loans taken by TSGENCO mainly from the REC and PFC which are the prime lenders to

b. Working Capital approved by the Commission as per this Regulation,

Multiplied with the Weighted Average Cost of Capital (WACC). The WACC for this purpose will be determined as pr the procedure given below

WACC=[D/E/(1+D)]rd+[1/(1+D/E)]re

The petitioner has claimed 14% as Weighted average cost of capital for work out the ROCE.

As per the submission made by the petitioner, the rat of interest for the loan from PFC Ltd and SBH is 12.50% and 11.75% respectively. The average percentage of cost of debt is works out as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of debt in %	11.4	11.32	11.96	11.84	11.74

The Return on equity if considered 15.5% as per the CERC regulation 2014, the WACC works out as below:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
WACC in %	7.98%	7.93%	8.38%	8.29%	8.23%

The Petitioner h as claimed 14% as WACC. The above percentage to be considered as pr APERC (Terms and Conditions for determination of Tariff for supply of Electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensee) Regulation 2008.

the power sectors.

b)15.5% on Return on Equity was considered for the purpose of arriving RoCE

c) RoCE rate proposed at 14% based on Debt-Equity ratio as determined at the Beginning of the control period as per 12.1 of regulations i.e. as on 1.4.2014.

TSGENCO Responses to PCKL(Power company of Karnataka Limited)

5	**Estimation on Working Capital** As per clause 12.4(c) and (e) of the APERC (Terms and Conditions for determination of Tariff for supply of Electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensee)Regulation 2008, provides that a. Operation and maintenance expenses for one month. b. Maintenance spares at 1 percent of the historical cost as per indexation of O&M norms and c. Receivables for sale of electricity equivalent in two months of the annual fixed charges calculated on normative capacity index. Interest on working capital shall be on normative basis and shall be equal to the short term prime lending rate of State Bank of India as on the date on which t he applicable for determination of tariff is made. The petitioner has added working capital in t he ROCE calculation and as per the above regulation interest on working capital on the above parameters are to be considered. The commission may consider above submissions in the tariff determination of Jurala Project.	Estimation on working capital computed as per the clause 12.4 (c) and (e) of erstwhile APERC regulations 1 of 2008.

31/1/17

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ANNEXURE

TSGENCO Responses to APSPDCL & APEPDCL

1. At the outset, it is humbly submitted that in respect of the determination of tariff for the control period FY 2014-15 to 2018-19 sought by the Petitioner, the tariff norms prescribed in the Regulation No. 1 of 2008 would be applicable. The claim of TSGENCO seeking application of CERC norms as per their amended regulation after 2006. Since these are not adopted by this Hon'ble Commission as required under clause (10) of Regulation 1 of 2008 is not tenable.

   REPLY

   As per the Clause 10 of the APERC Regulation 1 of 2008 provides for the application of further amendments to the CERC Regulation upon adoption by the Hon'ble Commission by special or general order. The CERC has subsequently issued revised Regulation for the control period 2009-2014 and 2014-2019.

2. The basic components of tariff determination comprise the following:

   (A) FIXED COST COMPONENTS

   (i) Return on Capital Employed (RoCE)
   (ii) Depreciation
   (iii) O&M Expenses
   (iv) (Income Tax as per Actual)

   (B) VARIABLE COSTS COMPONENTS

   1. Fuel Cost as per the norms

1. Gross Fixed Assets:

TSGENCO arrived the Gross Fixed Assets at Table - 1 of the application.

As per APERC order dated 31.05.2014 in O.P.No.15 of 2009 the Gross Fixed Assets (GFA) were arrived as on 31.03.2013 and approved by APERC as follows:

KTPS-ABC	Rs. 959.69 Cr
KTPS-V	Rs. 2080.07 Cr
KTPS-VI	Rs. 2359.60 Cr
RTS-B	Rs. 59.65 Cr
KTPP-I	Rs. 2529.96 Cr

In the filings, it is observed that during the period 2009-10 to 2013-14 an additional capital expenditure incurred to the tune of Rs. 570.56 Cr for FY 2009-14 for thermal stations at Annexure-A1. At any point of time, the then APGENCO has not informed/submitted the details of R&M works carried out and the expenditure incurred towards R&M. APGENCO was also silent as to the said additional capital expenditure during finalization of O.P. No. 15 of 2009 i.e., on 31.05.2014. Hence, such a claim is neither can be believed nor at this belated stage can be considered. Therefore Hon'ble Commission may reject the said claim

REPLY

1. **Most of the TSGENCO stations have served their life and still functioning well above country standards. Due to ageing of units which are required renovation and modernization in certain areas of KTPS-O&M, RTS-B, KTPS-V, NSHES complex. There is a need for capital investment in order to improve the generation and efficiency of the plant.**
2. **TSGENCO has not claimed Additional capitalization for the existing stations during the control period 2009-14.it is also mentioned in APERC order in O.P. No.15/2009, dt: 31.05.2014.**
3. **TSGENCO submitted additional capital expenditure incurred during FY 2009-14, FY 2014-15 and FY 2015-16 on actual basis of existing stations to the Hon'ble commission for approval** as per the clause 15 of CERC regulation 2014 and will be recovered through the tariff as per the article 3.1.2(c) of PPA entered with DISCOMs.

2. <u>O&M Expenses:</u>

TSGENCO claimed O&M expenses for FY 2009-10 was escalated by 6.04% year on year till FY 2013-14 and the average of 5/3 years computed was escalated by 6.64% by way of normal annual escalation and further 20% added towards 40% pay revision with effect from 01.04.2014 to arrive O&M for first year of third control period starting from 2014-15.

The tariff for 2[nd] control period (2009-10 to 2013-14) was already determined by APERC as per Regulation 1 of 2008. The same cannot be reopened. TSGENCO now revised the 2[nd] control period O&M charges to arrive for 3[rd] control period based on

CERC Regulation 2014. As stated above, at present the prevailing regulation in the state to determine the tariff of generation is Regulation 1 of 2008 issued by APERC.

The Hon'ble Commission is therefore requested to consider the prevailing regulation 1 of 2008 of APERC while finalizing the tariff for 3rd control period i.e., FY 2014-15 to 2018-19.

REPLY

a) The O&M expenses provided in the Regulation 1 of 2008 was based upon the CERC 2004 Regulation and as amended in 2006 for the control period 2004-2009. As per the Clause 10 of the APERC Regulation 1 of 2008 provides for the application of further amendments to the CERC Regulation upon adoption by the Hon'ble Commission by special or general order. The CERC has subsequently issued revised Regulation for the control period 2009-2014 and 2014-2019 which, inter alia, provided also for allowing pay revision as the pay revision was due for Central PSUs during that period.

b) **For APGENCO Power Stations, Hon'ble APERC admitted O&M expenses based on the CERC 2014 regulations for the control period 2014-19 and also admitting the pay revision 2014 and other fixed charge components are considered as per the 1 of 2008 APERC Regulations.**

3. Depreciation:

The Hon'ble Commission is requested for prudent check on depreciation based on MoP notification 1994.

REPLY

The depreciation for the existing stations of Thermal and Hydel were considered as per the Hon'ble APERC order in OP.No.15/2009, dtd 31.05.2014 for the current control period 2014-19 and depreciation considered for the new projects as per the MoP notification dtd 29.03.1994.

4. <u>Return on Capital Employee (RoCE):</u>

As per Regulation 1 of 2008 of APERC RoCE = Sum of original capital cost less accumulated depreciation and working capital approved by commission as per regulation multiplied with the weighted average cost of capital (WACC).

$$\text{WACC}= \left(\frac{(D/E)}{(1+(D/E))}\right) * rd + \left(\frac{1}{1+(D/E)}\right) *re$$

Where D/E is Debit Equity Ratio
rd is the cost of Debt
re is the return on equity
TSGENCO consider D/E as 70:30
rd is 12.5%

$$\text{WACC} = \left(\frac{(70/30)}{(1+(70/30))}\right) *12.5\% + \left(\frac{1}{(1+(70/30))}\right) *15.5\%$$

=13.4

The same may be considered for arriving RoCE.

<u>REPLY</u>

a) As per 12.1 of APERC regulations 1 of 2008 , the Debt-Equity ratio as determined at the beginning of the control period has to be considered for arriving at WACC commencing from 70:30 from the date of COD as per the clause No.10.13 of APERC Regulation 1 of 2008.The debit equity ration as on 01.04.2014 i.e. at the beginning of control period is 53:47 for TSGENCO as a whole accordingly the WACC works out to 13.92 % rounded to 14%.

b) Interest on Debt was considered as a 12.5% for purpose of arriving RoCE based on the interest rates charged by PFC & REC which are the prime lenders to the Power sector.

c) Return on Equity rates was considered as a 15.5% for purpose of arriving RoCE as notified by CERC in line with 12.1 of APERC Regulations.

5. **Working Capital:**

TSGENCO claimed the interest on working capital as 14%. As per clause 12.4(b) of Regulation 1 of 2008 of APERC the interest on working capital shall be on normative basis and shall be equal to the short term Prime Lending Rate (PLR) of State Bank of India as on the date on which the application for determination of tariff is made. The interest claimed by TSGENCO on working capital is on higher side. Hence the Hon'ble Commission is requested for prudent check on the Prime Lending Rate of SBI while finalizing the tariff.

REPLY

TSGENCO claimed the interest on working capital as per clause 12.4(b) of Regulation 1 of 2008 in line with the RoCE.

6. **Other expenditure - Interest on Pension Bonds over and above scheduled interest:**

TSGENCO claimed Interest on Pension Bonds for the 3rd Control period without furnishing the station wise details such as total assets and liabilities, scheduled interest and over and above the scheduled interest amount. The Hon'ble Commission is requested for prudent check on it while finalizing the tariff. It is also submitted that the component of interest on pension bonds is only for old stations such as KTPS-ABC, RTS-B as per annexure-II of order dated 24.03.2003 in O.P.No.402/2002.

It is prayed that the Hon'ble Commission may disallow the claims of TSGENCO objected by this respondent while determining the tariff in O.P.No.26/2006.

REPLY

TSGENCO has claimed the interest on pension bonds over and above schedule interest and shall be allowed as pass through in the generation tariff on year to year as per the article 3.1.2 9(c) of PPA entered with DISCOMs on dt:22.12.2009. For APGENCO, Hon'ble APERC considered interest on pension bonds over and above schedule interest in its order dt.26.03.2016 In O.P.03/2016.

4/12/17

Chief Engineer
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