ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION
4th Floor, Singareni Bhavan, Red Hills, Hyderabad 500 004

THURSDAY, THE ELEVENTH DAY OF JANUARY
TWO THOUSAND AND TWENTY-FOUR
(11.01.2024)

Present

Justice C.V.Nagarjuna Reddy, Chairman
T.Rama Singh, Member
P.V.R. Reddy, Member

In the matter of

Determination of Tariff for the control period FY 2019-2024 under Section 62 of the Electricity Act, 2003 for the electricity supplied by APPDCL from SDSTPS to the Distribution Licensees in Andhra Pradesh.

O. P . No. 53 of 2019

Between

Andhra Pradesh Power Development Company Limited (APPDCL) ... Applicant

AND

Southern Power Distribution Company of Andhra Pradesh Ltd ... (APSPDCL)
Eastern Power Distribution Company of Andhra Pradesh Ltd ... (APEPDCL)
Central Power Distribution Corporation of Andhra Pradesh Limited ... (APCPDCL)
... Respondents

This Application has come up for hearing finally on 01-11-2023 in the presence of Sri K. Gopal Choudary, learned counsel for the Applicant and Sri G.V.Brahmananda Rao, counsel representing Sri P.Shiva Rao, learned Standing Counsel for the respondent(s), and Sri R.Shiv Kumar, representing A.P.Textile Mills Association, learned objector. After carefully considering the material available on record and after hearing the arguments of all the parties, the Commission passes the following:

ORDER

1. The Applicant stated that this application is filed under Section 62 of the Electricity Act, 2003, to determine the tariff for the control period FY2019-2024 i.e from 01.04.2019 to 31.03.2024 for the supply of electricity generated from Sri Damodaram Sanjeevaiah Thermal Power Station (SDSTPS) Stage-I (2X800 MW) to the Respondent Distribution Licensees at the rates proposed by it and/or as otherwise determined by the Commission by law and as the Commission considers fit in the facts and circumstances of the case. The important facts of the case according to the Applicant are narrated hereunder:
   a. An Amended and Restated Power Purchase Agreement (PPA) dated 24.08.2016 was entered into between the applicant and the two distribution companies in Andhra Pradesh for 90% of the power generation capacity of the SDSTPS for 25 years up to 23.08.2041.
   b. The two distribution companies of Andhra Pradesh filed O.P. No. 21 of 2016 for the consent of the Commission to the aforesaid PPA, and the same was approved in principle by the Commission by order dated 13.07.2018 subject to the parties reviewing certain clauses.
   c. The Applicant filed O.P. No. 47 of 2017 for the determination of tariff for the period from 05.02.2015 up to 31.03.2019. The Commission passed an order dated 02.03.2019 determining the tariff. A review application has been filed by the Applicant concerning the determination of capital cost.
2. That the Application comprises annual fixed costs/capacity charges, energy charges based on the operating norms, and certain terms and conditions of supply. This application for determination of tariff is made in terms of the Andhra Pradesh Electricity Regulatory Commission (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, (Regulation 1 of 2008), which is in force as the applicable Regulation of this Commission in terms of the adaptation Regulation notified by the erstwhile Commission.
3. The Applicant's important submissions on each component of Annual Fixed Charges (AFC) and Energy/Variable charges are as under:
   A. **Return on Capital Employed (RoCE):** The RoCE is computed based on Clause 12.1 of Regulation 1 of 2008. Accordingly, to arrive at RoCE, the Working Capital is computed under Clause 12.4 of Regulation 1 of 2008 as given below.

S. No.	Description	FY 2019-20 (Rs. Cr)	FY 2020-21 (Rs. Cr)	FY 2021-22 (Rs. Cr)	FY 2022-23 (Rs. Cr)	FY 2023-24 (Rs. Cr)
1	Cost of Coal stock for 1 month	273.49	273.49	273.49	273.49	273.49
2	Cost of Oil for 2 months	4.30	4.30	4.30	4.30	4.30
4	O&M Expenses for 1 month	29.17	30.19	31.25	32.35	33.48
5	Maintenance spares-1% of historical cost	125.89	130.92	136.16	141.61	147.27
6	Sales receivables 2 months	851.23	859.46	856.67	853.53	850.48
7	**Total Working Capital (1+2+3+4+5+6)**	**1284.07**	**1298.36**	**1301.87**	**1305.27**	**1309.03**
8	**90% of Total Working Capital (0.9* (7))**	**1155.67**	**1168.53**	**1171.68**	**1174.75**	**1178.12**

The Debt-Equity Ratio (D/E) is taken as 70:30 as per Clause 10.13 of Regulation 1 of 2008 and applied to the Capital Cost approved by the Commission in its order dated 02.03.2019 and also considering the additions sought in the review Application filed by the Applicant. The cost of Debt is taken at a rate of 10.20% considering interest rates charged by PFC and REC. Return on Equity (RoE) is taken at 15.5% as per the CERC Regulation applicable for FY2019-2024 as referred to in APERC Regulation 1 of 2008. Accordingly, the Weighted Average Cost of Capital (WACC) is computed as 11.8% as per the formula provided in Regulation 1 of 2008 as shown below:

S. No.	Financial Year	Debt	Equity	Rate of Interest	Return on equity	WACC
	a	b	c	d	e	f=(b*d+c*e)/ 100
1	2019-20	70%	30%	10.2%	15.5%	11.8
2	2020-21	70%	30%	10.2%	15.5%	11.8
3	2021-22	70%	30%	10.2%	15.5%	11.8
4	2022-23	70%	30%	10.2%	15.5%	11.8
5	2023-24	70%	30%	10.2%	15.5%	11.8

The rate of RoCE/WACC is on par with the rate of RoCE approved by the Commission in O.P.No. 35 of 2018 for the control period FY 2019-24 for

APGENCO. Having computed the Working Capital and WACC as discussed above, the RoCE is computed as shown below.

S. No.	Description	FY 2019-20 (Rs . Cr)	FY 2020-21 (Rs . Cr)	FY 2021-22 (Rs . Cr)	FY 2022-23 (Rs . Cr)	FY 2023-24 (Rs . Cr)
1	Original Capital Cost	10761.4	10761.4	10761.4	10761.4	10761.4
2	Additional Capitalisation	554.33	554.33	554.33	554.33	554.33
3	Less accumulated Depreciation	1148.49	1459.67	1770.86	2082.04	2393.23
4	Working Capital	1284.07	1298.36	1301.87	1305.27	1309.03
5	*Total (1+2-3+4)*	11451.31	11154.42	10846.74	10538.96	10231.53
6	Rate of RoCE	11.80%	11.80%	11.80%	11.80%	11.80%
7	***RoCE (Annual Basis) (5 x 6)***	**1351.25**	**1316.22**	**1279.92**	**1243.60**	**1207.32**
8	**90% of ROCE Claimed (0.9 x (7))**	**1216.13**	**1184.60**	**1151.92**	**1119.24**	**1086.59**

B. **Depreciation: The Depreciation** is computed as per the Companies Act at the rates approved by the Commission in its order dated 02.03.2019 in O.P. No. 47/2017 as shown below:

S. No.	Particulars	FY 2019-20 (Rs .Cr)	FY 2020-21 (Rs .Cr)	FY 2021-22 (Rs .Cr)	FY 2022-23 (Rs .Cr)	FY 2023-24 (Rs .Cr)
1	100% Depreciation	311.18	311.18	311.18	311.18	311.18
2	90% of Depreciation Claimed	280.07	280.07	280.07	280.07	280.07

C. **Operation & *Maintenance Expenses:*** There are no norms in APERC Regulation 1 of 2008 for power plants with a capacity of over 500 MW. The CERC issued a revised Regulation in 2009 for the control period of FY2009-2014 which, inter alia, provided for allowing pay revision impact during that period. Similarly, the CERC has also issued a further revised Regulation for the control period FY 2019-2024. It is therefore necessary that the Commission consider and adopt the methodology of the CERC concerning O&M expenses and year-on-year escalation thereof. The pay scales of the employees were revised with effect from 01.04.2018. Further, the State Government has enhanced the HRA, CCA and Gratuity which has been adopted by the APGENCO as per the service regulations. The staff of APPDCL are substantially employees deputed from APGENCO. Accordingly, the O&M expenses are estimated in this application. The per-MW expenses specified in the CERC Regulations 2019 plus an additional 20% thereof towards the impact of pay revision are computed as the O&M expenses in each year of the control period. The O & M expenses for the 2nd and subsequent years of the control period are computed by escalating the 1st year O & M expenses by 3.51% year-on-year as per CERC Regulation 2019. The Water Charges, Security Expenses and Capital Spares for thermal generating stations are claimed additionally. The computation of O&M expenses is shown below.

S. No.	Description	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	Capacity(MW)	1600	1600	1600	1600	1600
2	O&M Charges/ MW *(Rs Lakhs)*	21.88	22.64	23.44	24.26	25.11
3	*Total O&M (Rs Crores)*	*350.02*	*362.30*	*375.02*	*388.18*	*401.81*
4	Water Charges plus Security Charges	12.00	12.48	12.98	13.50	14.04
5	***Total O&M Expenses including water and security (Rs Crores) (3+4)***	***362.02***	***374.78***	***388.00***	***401.68***	***415.84***
6	***90% of Total O&M Charges (Rs Crores) (0.9 x (5))***	**325.81**	**337.30**	**349.20**	**361.51**	**374.26**

D. **Income Tax*:*** The Income Tax paid is to be allowed at actuals as an additional pass-through in terms of Clause 12.5 of the Regulation, and therefore would be claimed based on actual payment from time to time.

E. **Energy Charges/Variable Costs:** The Variable costs for the energy supplied are to be computed, in the first instance for monthly billing, based on the operating norms specified and following Clause 13.1 of Regulation 1 of 2008 considering the actual landed cost and the GCV of fuels during the preceding three months. The variable costs claimed on a month-to-month basis as above shall be adjusted to account for variation in the actual landed cost of fuels and the actual GCV of the fuels under Clause 13.1b of the Regulation. Having regard to the order of the Commission in O.P. No. 35 of 2018 for APGENCO, the Commission may direct the licensees to admit up to 15% positive variation straightaway for payment; and if the variation is over 15% the variation may be limited to 15% for payment subject to the scrutiny and approval of the Commission in respect of the variation exceeding 15%.

Further, the benefits of supercritical technology are realized only when a unit of the power station operates at a capacity of 660 MW or above. If the unit operates below 660 MW, due to non-despatch and/or backing down (however within the limit provided in the PPA), the benefits of supercritical technology will not be realized. The operational parameters when operating at above 660 MW (supercritical parameters) and below 660 MW (sub-critical parameters) are as shown below:

S.No.	Parameter	Sub Critical	Super Critical
1	Station Heat Rate (KCal/kWh)	2450	2302
2	Aux. Power Consumption	7.5 %	6.5 %
3	Sp. Oil Consumption	2.0 ml/kWh	2.0 ml/kWh
4	Availability	80 %	80 %

Regulation 1 of 2008 has prescribed operating norms only for plants up to 500 MW. The operating norms as per the Regulation are considered applicable for sub-critical operations below 660 MW. For operations above 660MW, the operating norms would be those for supercritical operations as above. Moreover, when operating below 574 MW, the extra cost of additional secondary fuel oil required to sustain operation at such low levels would be extra at actuals. Accordingly, the energy charges/variable cost would be computed as per the procedure shown below:

a. When the operation of a unit is under a dispatch/schedule above 594 MW, the variable cost would be computed as per Regulation 1 of 2008 with operating norms applicable for supercritical operation stated above;

b. When the operation of a unit is under a dispatch/schedule between 516 to 594 MW, the variable cost would be computed as per Regulation 1 of 2008 with operating norms applicable for sub-critical operation stated above; and

c. When the operation of a unit is under a dispatch/schedule below 516 as per technical feasibility, the variable cost would be computed as per Regulation 1 of 2008 with operating norms applicable for sub-critical operation stated above, and in addition, the extra cost of additional secondary fuel oil required to sustain operation at such low levels would be extra at actuals.

In the order dated 02.03.2019 in O.P. 47 of 2017, the Commission has approved the variable cost based on supercritical operation, leaving the issue of differential fixed cost open and to be agreed upon between the parties. The issue remains open, therefore, for this control period.

Incentives: The incentives for generation beyond the Target 80% Plant Load Factor would be claimed annually at the rates specified in Regulation 1 of 2008.

4. **Proposed Generation Tariff*:*** The Tariff Proposed by the Applicant as described in para 3 is summarized below:

(i). **Annual Fixed charges (AFC)**: The year-wise Annual Fixed Charges for the total capacity and contracted capacity (90% of the total installed capacity (1440 MW)) as estimated are shown below.

Sl. No.	**Description**	**FY 2019-20 (Rs .Cr)**	**FY 2020-21 (Rs .Cr)**	**FY 2021-22 (Rs .Cr)**	**FY 2022-23 (Rs .Cr)**	**FY 2023-24 (Rs .Cr)**
1	RoCE	1351.25	1316.22	1279.92	1243.60	1207.32
2	Depreciation	311.18	311.18	311.18	311.18	311.18
3	O&M expenses	362.02	374.78	388.00	401.68	415.84
4	*Annual Fixed Charges (1+2+3)*	2024.46	2002.19	1979.10	1956.46	1934.35
5	**90% of Annual Fixed Charges (0.9 x (4))**	**1822.01**	**1801.97**	**1781.19**	**1760.82**	**1740.91**

(ii). **Energy Charges/Variable Charges:** The Energy charges for supercritical and subcritical operations are as shown below:

S. No.	Parameter	Super Critical	Sub-Critical
1	Station Heat Rate(kcal/ kWh)	2302	2450
2	Aux. Power Consumption	6.5 %	7.5%
3	Sp. Oil Consumption(ml/kWh)	2.0	2.0
4	Availability	80 %	80 %
5	Weighted Avg Cost of Coal(Rs/MT)	4,700	4,700
6	Weighted Avg Cost of Oil (Rs/Kl)	41,000	41,000
7	GCV of Coal (kcal/kg)	4,150	4,150
8	GCV of Oil (kcal/Ltr)	10,000	10,000
9	**Variable Cost per unit**	**Rs. 2.85/-**	**Rs. 3.03/-**

5. The Application is taken on the file of the Commission as O.P.No 53 of 2019. A Public notice along with the Application was placed on the website of the Commission inviting views/objections/suggestions from interested persons/stakeholders. It was also informed in the public notice that the subject matter of the application will be taken up for public hearing on 21.09.2019 at 11.00 AM. The matter was heard on 21.09.19, 19.10.19 and 23.11.2019. The respondents filed a counter on 23.11.2019. The applicant filed a rejoinder on 21.12.2019. The matter was posted for hearing on 19.02.2020 and due to the unavailability of Respondent's counsel, the matter was adjourned to 24.03.2020. Due to the COVID-19 pandemic, the matter was adjourned again and came up for hearing on 05.06.2020 through video conference. During the hearings on 05.06.2020, Sri K. Gopal Choudary and Sri P. Shiva Rao, learned counsel representing respective parties submitted that the respondents have filed a review petition seeking review of the order passed in O.P.No.47 of 2017 relating to certain parameters and that the said O.P. needs to be heard along with this tariff application. Accordingly, the matter was posted on 04.08.2020. However, due to the intense spreading of the COVID-19 pandemic, it could be heard only on 26.08.2020 through video conference. All the cases relating to this tariff application were posted for hearing on 24.02.2021. On 24.02.2021, Sri K. Gopal Choudary has undertaken to file supporting material in respect of the land development cost along with a brief note within two weeks. Sri P. Shiva Rao was permitted to file the response of the respondents thereto within two weeks thereafter. The Commission informed the

counsel that after passing appropriate orders in the review petitions, O.P.No.53 of 2019 will be taken up for hearing separately. Accordingly, after passing the orders in Review petitions (R.P.No.2 of 2019 in O.P.No.47 of 2017 and R.P.No.1 of 2020 and RP No.4 of 2022 in OP No.52 of 2019), the matter was heard on 01.02.23 and 26.04.23. During the further hearing on 28.06.23, a joint memo was filed by the Applicant on one side and the respondents on the other side. Since this issue relates to the determination of tariffs, requiring public hearing, the Commission directed the applicant to publish the summary of the tariff application in newspapers and file a proof of publication within four weeks. Accordingly, the Public Notice was published in pursuance of the letter dated 30.08.2019 from the Commission Secretary on 07.09.2019 in English newspapers “The Hindu”, and “Business Standard” in English, Telugu newspapers “Andhra Prabha” and “Sakshi” in Telugu submitted by the Applicant to the Commission as proof of publication.

6. The Respondents in their counter dated 22.11.2019 have mainly taken the following pleas/stand

   a. opposed the additional capitalisation projected by APPDCL,
   b. based on the past 4 years' track record of APPDCL’s actual coal stocks and availability of generation, the cost of coal stock for one month as part of the working capital computation should not be considered and instead actual coal stocks may be considered,
   c. the supercritical machines are designed to deliver the power with a normative plant availability of 85% and the secondary oil consumption at 0.5ml/kWh and auxiliary consumption at 6.5% as per the CERC regulations 2019. As there is no provision for the determination of the tariff for the stations above 500 MW in Regulation 1 of 2008, the operating parameters specified in the CERC Regulations need to be considered for the determination of the tariff.
   d. APPDCL claimed two months receivables as part of the working capital, whereas as per the CERC Tariff Regulation, it should be for 45 days. Hence, receivables for 45 days only may be considered.
   e. APPDCL has claimed different norms for station heat rate and auxiliary consumption by considering two different scenarios of super and sub-critical mode of operations which is not permissible under the Regulation.
   f. APPDCL considered the normative availability at 80%, whereas CERC Regulation specified the normative availability for recovery of full fixed charges at 85%.
   g. To consider the rate of RoCE/WACC at 11.2% only on par with the last two years

of the previous control period in line with the Commission's Order in OP.NO.47 of 2017.

h. The Commission in the APGENCO Generating stations tariff for the 4th control period, by its Order dated 29.04.2019 has already approved the O&M expenses of APGENCO employees for the control period FY 2019-20 to FY2023-24. Hence, the Commission may not accept the present claim of the APPDCL in respect of the O&M expenses,

i. Power purchase cost forms the bulk of the ARR of a distribution licensee. Grade slippages in the GCV of coal (difference in the GCV of coal at the billing end and firing end) have a significant impact on power purchase costs. Therefore, the Commission is to specify the norm for grade slippage. There are guidelines issued by CEA on this aspect and the same was made as part of the generation tariff of APGENCO passed by the Commission vide order dated 29.4.2019. Further, the directions of the Commission at paras (62) to (64) of said order need to be followed by the APPDCL also. The Commission may pass similar directions to APPDCL.

j. APPDCL has not proposed sharing of any financial gains with APDISCOMs on account of better Station Heat Rate, Auxiliary Consumption, Fuel Consumption, Restructuring of loans, CDM (Clean Development Mechanism) benefits and Non-Tariff income. Hence, the Commission may direct APPDCL to share the above benefits with APDISCOMs in line with the provisions of CERC Regulations.

7. In response to the above counter, the Applicant filed a rejoinder dated 19.12.2019 wherein it is submitted as under

a. On the averments of the Respondents on additional capital cost claimed, the Applicant filed R.P. No 2 of 2019 in O.P. No. 47 of 2017 concerning the determination of capital cost and the same is pending before the Commission. Accordingly, the Applicant has considered the capital cost and it will follow the decision of the Commission in the pending review petition.

b. As regards the averments of the Respondents on one-month coal stocks and receivables of two months in working capital computations, the applicant considered the same as per Regulation 1 of 2008. The Applicant, in the circumstances, is forced to restrict the import and utilization of imported coal which is more expensive. Consequently, the Applicant has not been able to achieve and maintain availability at the required level.

c. As regards the objections on different operating parameters for super and subcritical modes of operation and accordingly the differential variable costs, it is not fair for the Respondents to disable the smooth functioning of the Applicant's power plant by forcing the Applicant into financial distress and then also criticizing the consequential disabilities.

d. As regards the averments of the Respondents on receivables of two months in working capital computations, the PPA provides for 60 day credit period for payment of bills, and if only 45 days of receivables are allowed, the PPA also has to be correspondingly modified. There is no case or justification at all for the Respondents to ask for receivables of 45 days when their current outstanding receivables are as much as 7 months even with the present norm of 60 days.

e. In the absence of reasonable tariff, and timely payments not forthcoming, it is not possible for the Applicant to obtain and maintain proper stocks of washed and imported coal to be able to operate in supercritical mode. Further, it is necessary that the SLDC has also not back down the Applicant's power plant below 660 MW.

f. About considering 80% normative availability in the computation of tariff, the issue is indeed pending in O.P. 52 of 2019.

g. About the rate of RoCE, the Applicant has proposed RoCE based on the present interest rates of PFC and REC and the RoE considering the CERC Regulations for FY 2019-24.

h. About the 20 per cent additional O&M costs approved by the CERC per MW, the APGENCO employees working on deputation in APPDCL are to be paid by APPDCL. The employee costs of such employees working in APPDCL are to be allowed to APPDCL in the same manner as the employee cost of APGENCO employees working in APGENCO was allowed in the tariff of APGENCO.

i. About the procedure for sampling, testing and calculation of GCV of coal as set out in paras 62 to 64 of the APERC order dated 29.04.2019 in the case of APGENCO being made applicable to the Applicant, it has no objection.

j. Regarding the sharing of financial gains, there are no regulations of the APERC requiring the sharing of any financial gains referred to by the Respondents. There is no question of any revenue under CDM in this case. In any case, the proposition is only hypothetical and speculative.

8. The Applicant and the Respondents (Also shareholders of APPDCL) being public sector undertakings have agreed on certain issues raised in the counter by the

Respondents and accordingly filed a joint memo dated 27.06.2023**.** The issues agreed upon by both parties are

a. To consider Sea Water Intake Outfall package amount of Rs. 268 Cr as additional capitalization amount,
b. To consider Return on Capital Employed (ROCE) at 11.8%,
c. To consider sale receivables claimed for 2 months as part of working capital,
d. To consider Specific oil consumption as 0.5 ml/kWh, with effect from 01-04-2023.
e. Share overall financial gain attained by APPDCL with APDISCOMs,

By filing the above joint memo, both parties requested the Commission to issue orders on the application OP No. 53 of 2019 filed by APf'DCL in terms of said consensus.

9. **The objections/views/suggestions**: The objections on this application have been received from certain stakeholders in the Commission's Office and the APPDCL has furnished the replies to the same. The summary of objections and replies by APPDCL are as under.

Sri. M. Venugopala Rao

a. **Objection:** The review application filed by APPDCL on capital cost approved by the Commission has been pending. The subject Application and counter filed by APDISCOMs show that both parties could not come to an understanding on the issues specified by the Commission in its order dated 13.07.2018 and in the order dated 02.03.2019 in O.P No 47 of 2021. The way the issues have been allowed to continue to be pending over the years confirms the need for filing and taking up issues of determination of capital cost, PPA and tariffs simultaneously for consideration and order of the Commission when the parties to a dispute cannot come to an understanding on points of dispute, even after directed by the Commission, the latter is expected to take a holistic view and give its clinching order. Without giving such a final order covering all the issues, determining tariffs for FY 2019-24 will also be ad hoc in nature and allow the bones of contention to continue.

APPDCL's Reply: The issues arising concerning certain clauses of the PPA were already resolved and the Commission has passed an order dated 13.08.2020 in O.P. No. 52 of 2019. The Review Applications filed by the APDiscoms and the APPDCL against the Commission's order determining the project's capital cost have been disposed of by Common order dated 18.04.2021 in R.P. No 1 of 2019 and R.P. 2 of 2019. Therefore, the objections that arise out of the mistaken impression of the pendency of the above Applications no longer survive.

b. **Objection:** The capital cost approved by the Commission already is on the higher side with a cost of Rs.6.72 crore per MW. Claiming an additional capitalisation of Rs.2771.65 crore during the period FY 2019-24 and seeking a determination of tariffs on such questionable basis is impermissible. APPDCL is expected to restrict prudent costs for setting up the subject project as per time schedules applicable under relevant regulations. Any such determination would not only impose an avoidable and unjustified burden on consumers of power for the said five-year period but also would prepare the ground for the continuation of such avoidable and unjustifiable burden in future also till the expiry of the PPA. It would defeat the prudence check with which the Commission determined the capital cost of the subject project in its order dated 02.03.2019.

APPDCL's Reply: It is not correct to say that the additional capitalisation of Rs.2771.65 crores was claimed. The Applicant had claimed additional capitalisation of Rs.554.22 crores towards expenditure incurred in the Seawater Intake and outfall system, establishment cost and land development costs in addition to Rs 10,761.40 Cr. Subsequently, a Joint Memo dated 28.06.2023 was filed by the Applicant and the AP Discoms wherein additional capitalisation of only Rs. 268 crores has been agreed upon.

c. **Objection:** APPDCL has admitted that it could not maintain stocks of coal as per applicable regulations. In other words, to the extent coal stocks are maintained at a level lesser than the one stipulated in the applicable regulations, it has its implications. It does not require working capital proportionate to such lesser maintenance of stocks of coal. It also leads to declaring lesser availability of generation capacity than the threshold level of PLF as approved by the Commission. Without maintaining the required stocks of coal and without declaring availability and achieving the threshold level of PLF, APPDCL cannot claim full fixed charges and interest on working capital. When APPDCL could not maintain the required stock of coal and declare the availability of generation capacity at a threshold level, seeking the requirement of working capital and interest thereon based on normative parameters is nothing but making claims based on expenditures which were not incurred. It is even contrary to the arrangement of paying fixed charges for the actual declaration of availability of generation only as per the terms and conditions in the PPA.

APPDCL's Reply: APDISCOMs are paying the Fixed Charges in proportion to the Availabilities achieved by APPDCL. The working capital is being paid on a normative basis as per Regulation 1 of 2008. If actual are considered, the same is to be considered for all parameters which is deviation to regulations.

d. **Objection:** APPDCL has pointed out that the outstanding receivables from the DISCOMs are of the order of 7 months as against the agreed period of 2 months. Non-payment of bills for power supplied for inordinately long periods seriously affects and cripples its cash flow and it is being forced into consequential defaults in making payments for coal and its transportation, APPDCL has rightly pointed out. For delay in payment by the DISCOMs, APPDCL is entitled to get interest for the period delayed as provided for in the PPA. It is also evident that APPDCL could not, and did not avail of loans for working capital to the extent required to maintain the stock of coal required and declare the availability of generation capacity at a threshold level of PLF. Market purchases of power seem to be of irresistible attraction to the powers-that-be, instead of facilitating the generation and supply of power to the optimum by projects of its own utilities. As rightly pointed out by APPDCL, delaying payment of dues, on the one hand, and finding fault with it for its inability to maintain stock of coal as required and declaring the availability of capacity at threshold level, on the other, is not a fair approach.

   APPDCL's Reply: Working Capital has been considered based on 1 month of coal stocks and 2 months of receivables. Payments for the energy supplied are constantly and inordinately delayed, and consequently the actual receivables are significantly beyond the normative 2 months. The cash flow of the Applicant is seriously affected. If the available working capital is consumed by the receivables, it is not possible for the Applicant to regularly maintain coal stocks at the normative or desired levels. The position is aggravated by the under-recovery of fixed costs due to the forced declaration of availability based on the non-availability of the required coal stocks caused by the delayed payments for the energy supplied. This vicious cycle needs to be ended by the proper and timely payment being made for the energy supplied.

e. **Objection:** APPDCL has contended that the PPA also provides for a 60-day credit period for payment of bills, and if only 45 days of receivables are allowed, the PPA also has to be correspondingly modified. When a credit period of 60 days is considered in the PPA, the determination of tariffs based on applicable normative parameters must have been considered by the Commission, factoring this point also, as has been the standard practice. No generator of power is claiming modification as APPDCL is doing.

APPDCL's Reply: APDISCOMs and APPDCL have agreed to a 60-day credit period for monthly bill payments. In this regard, APPDCL submitted a joint memo before the Commission on 28.06.2023, which is in line with the PPA and APERC Regulation 1 of 2008. However, the issue is academic as payments are invariably delayed beyond 60 days.

f. **Objection:** When the subject project is considered to work in supercritical mode, with all the capital costs incurred for the same, and when it is specified in regulations that normative availability for recovery of fixed charges is 85%, it should not be considered as 80%. If APPDCL maintains a stock of adequate coal as per norms and declares the availability of capacity for the generation of power at a threshold level, it can claim fixed charges when DISCOMs back down their capacity or get payment of full tariffs if DISCOMs take power generated at a threshold level of PLF, with interest for the period delayed in paying the bills. That interest for delay in paying bills would cover more than enough of the interest APPDCL may have to pay for working capital.

APPDCL's Reply: The present tariff Application was filed in 2019 considering the normative PLF to be 80% as provided in the PPA. Subsequently, while the tariff Application was pending, the Commission in its orders in O.P No. 52 of 2019 dated 13.08.2020 directed to amend the target availability as 85%. Accordingly, the amended PPA was submitted to APDISCOMS. Working Capital has been considered based on 1 month of coal stocks and 2 months of receivables. Payments for the energy supplied are constantly and inordinately delayed, and consequently the actual receivables are significantly beyond the normative 2 months. The cash flow of the APPDCL is seriously affected. If the available working capital is consumed by the receivables, it is not possible for the APPDCL to regularly maintain coal stocks at the normative or desired levels.

g. **Objection:** Regarding the point that RoCE is connected to the rate of interest, APPDCL has to bear on loans obtained for the subject project. APPDCL has admitted that the issue of seeking a higher rate of RoCE is pending before the Commission in O.P.No.52 of 2019. As such, till the OP is disposed of, APPDCL is not entitled to get a higher rate of RoCE. It also needs to be examined, when loans from PFC have been taken in the past at the rates of interest prevailing then for meeting the capital cost of the project, and whether the subsequent rates of interest are applicable for determining the RoCE.

APPDCL's Reply: The Commission issued orders in O.P No. 52 of 2019 on 13.08.2020. APPDCL and APDISCOMs have submitted a joint memo before the

Commission on 28.06.2023 to consider ROCE at 11.8 % on par with APGENCO MYT order dt. 29.04.2019.

h. **Objection:** APPDCL has maintained that employees of APGENCO have been working in APPDCL on deputation and that they are to be paid by APPDCL. As such, the costs of such employees working in APPDCL are to be allowed to it in the same manner as the employee cost of APGENCO working in the latter, as is being allowed, APPDCL has argued. If APPDCL is paying pay and allowances to the employees working for it on deputation, to that extent O&M costs of APGENCO need to be deducted for determining the multi-year tariffs for its generating stations and vice versa. Any amounts received by generators of power, including APGENCO, on account of sending its employees on deputation to other organisations or for rendering services to other organisations should be treated as non-tariff income and factored in the tariff they are permitted to get by the Commission in the orders applicable.

   APPDCL's Reply: The employee cost of APGENCO employees deputed to APPDCL are accounted in only APPDCL. Such costs are not claimed by APGENCO in their tariff Applications.

i. **Objection:** Since APPDCL has agreed that it has no objection to the procedure for sampling, testing and calculation of GCV of coal as incorporated in the order dated 29.4.2019 of the Commission in the case of APGENCO being made applicable to the subject project also, it is for the DISCOMs to take necessary steps in this regard to protect their interests and of their consumers of power and the Commission may direct the DISCOMs accordingly.

   APPDCL's Reply: There is no objection to the procedure of sampling, testing and GCV computation for coal like that in the APGENCO MYT order dated 29.04.2019.

j. **Objection:** APDISCOMs have requested the Commission to direct APPDCL to share financial gains, if any, with them on account of better station heat rate, auxiliary consumption, fuel consumption, restructuring of loans, clean development mechanism benefits and non-tariff income. In principle, this request is justified and should be made applicable to all generators of power with whom the DISCOMs had and will have PPAs. All these factors are inherently connected to the capital cost incurred by the generator and approved by the Commission for setting up the project concerned with identified technology of the category of generating stations during a specific period and expenditures related to factors of variable costs. Since the regulations of ERCs are very much liberal in prescribing normative parameters for the determination of generation tariffs, the scope for earning concealed profits by generators of power is very much there and all such costs are also covered in the tariffs determined by the respective Commissions, a fact which can be ascertained by examining the audited annual accounts and actual performance of the projects concerned. If necessary, the Commission has to bring about an appropriate amendment to the regulation applicable, providing for the sharing of such financial gains which accrue to generators of power under PPAs in force.

APPDCL's Reply: APPDCL has agreed to share the overall financial gain attained by APPDCL with AP Discoms and APPDCL has submitted a joint memo before the Commission on 28.06.2023 to that effect.

A.P. Chambers of Commerce & Industry Federation & A.P.Textiles Association

a. **Objection:** Seven years and two months after PPA was approved with directions from the Commission to review certain clauses in PPA, the differences are continuing and pending before the Commission. The issues directed by the Commission, specifically the matter of non-payment of fixed charges during periods when DISCOMs advise that they don't require power, is a matter of major concern for DISCOM consumers. Besides a review Application has been filed by APPDCL in respect of the determination of Capital Cost, which is pending before the Commission, it is unable to understand why this Application be accepted for hearing when the earlier directives in the matter of PPA in OP No.21 of 2016 of the Commission remains unresolved. The Commission has to decide on the PPA as per their directives, hear the APPDCL and pass the final orders on Capital Cost, before resuming the hearing on O.P No. 53 of 2019.

   APPDCL's Reply: The Commission issued orders in O.P No.52 of 2019 on 13.08.2020 to amend the PPA. Accordingly, the amended PPA was submitted to APDISCOMS. The Commission has issued orders in RP No. 02 of 2019 and RP No. 01 of 2020 on 08.04.2021.

b. **Objection:** It is noted from the Applications Form -1 on page 26 for the calculation of Rate of Energy charges (Rs/kWh), the Availability is taken at 80%, which is in contradiction to the Commission decision in O.P No.35 of 2018 and O.P No. 33 of 2019, where Availability Factor was decided as 85% for Generating stations as in CERC Tariff Regulations 2019, as APERC Regulation 1 of 2008 has no regulations for plants above 500 MW. The Commission may reject this Application and direct APPDCL to rework their annexures and resubmit their Application for tariff determination.

APPDCL's Reply: The tariff Application O.P No.53 of 2019 was submitted on 02-08-2019 where in Form-I, the % Availability was mentioned as 80 %. Subsequently, the Commission in its orders in O.P No.52 of 2019 dated 13.08.2020 directed to amend the target Availability as 85%. APPDCL requested the APDISCOMs to enter revised PPA accordingly.

c. **Objection:** Since availability is presumed 80% instead of 85%, the quantity of coal required is probably understated. Neither unit Cost of coal (figure given excludes freight), grade of coal and other relevant assumptions including rail and/or freight forming the basis has not been given therefore, there is no data for verification. Receivables are allowable for 45 days as per CERC Regulation 2019, but not two months taken in Annexure A-1 of the Application. The price list would have been helpful as a reference for future fuel cost adjustment basis.

APPDCL's Reply: The tariff Application was submitted on 02-08-2019 where the Availability was considered as 80% for calculating working capital. APDISCOMs and APPDCL have agreed to a 60-day credit period for monthly bill payments. In this regard, APPDCL has submitted a joint memo before the Commission on 28.06.2023 which is in line with Regulation 1 of 2008 of APERC.

d. **Objection:** Unless the capital cost is finalized, it is not clear how debt: equity and WACC can be finalized even tentatively. After the finalisation of Capital cost and working capital, RoCE and Depreciation can be decided.

APPDCL's Reply: The Commission determined Capital Cost in the orders of O.P No. 47 of 2017 Dated 02.03.2019. APPDCL and APDISCOMs submitted a joint memo before the Commission on 28.06.2023 to consider ROCE at 11.8 % on par with APGENCO MYT order dated 29.04.2019.

e. **Objection:** The O&M Expenses claimed in Annexure A4 of the Application including water and security charges are 20% to 25% higher than provided for in CERC Tariff Regulations 2019. The variance and higher Rs/MW proposed for O & M by the Applicant are not in line with the CERC Tariff Regulations 2019 and requested the Commission to direct the Applicant to rework their O&M charges as per Regulation. The claim of 25% towards pay revision is substantial per MW and requires details and a financial prudence test & audit.

APPDCL's Reply: The O&M Expenses are claimed considering the CERC Regulation 2019 norm escalated by 20% to account for the effect of the pay revision implemented from 01.04.2018. This is in line with the MYT Order dated 29.04.2019 for APGENCO.

f. **Objection:** Since the Availability is presumed 80%, it is requested that the Applicant re-calculate the variable cost on 85% Availability. Further, the Applicant has to check whether SHR can be improved to 2100 kcal/kWh from 2302 Kcal/kWh based on the margin available between Max Design heat rate & feasibility, which can compensate for some cost escalations in capital costs and reduce variable costs, from Rs 2.85 /kWh at 80% availability to Rs 2.65 or less at 85% Availability.

   APPDCL's Reply: The Commission in its orders in O.P No. 52 of 2019 dated 13.08.2020 directed to amend the target availability as 85%. Accordingly, the amended PPA was submitted to APDISCOMS. Variable cost is as per the actuals subjected to the approval of the same by the Commission in the tariff order.

g. **Objection:** Clause (c) under conditions (9.3), the delayed payment surcharge of 1.25% per month appears usurious and should be limited to the bank rate for working capital. Clause (d) should be enforceable only after PPA is approved by the Commission after having met the conditions stipulated in O.P No.21 of 2016 given on 13.07.2018.

   APPDCL's Reply: The Delayed payment surcharge is claimed as per Clause 16.2 of APERC Regulation 1 of 2008. APPDCL will honour the Commission's decision.

10. The APPDCL by rejoinder dated 11.11.2023 has reiterated the replies furnished to the various objections received from the stakeholders as discussed in the previous para.

Commission's analysis and decision:

11. The Commission has carefully examined the objections, replies furnished by APPDCL on the same, and all the submissions of the Respondents and Applicant in their counters and rejoinders respectively, and the joint memo. As replied by APPDCL, some submissions of the objectors on regarding pending of issues before the Commission regarding SDSTPS no longer survive as the Commission decided the same through various orders, vide order dated 13.08.2020 in O.P.No. 52 of 2019, Order dated 08.04.2021 in Review Petition No.2 of 2019 in O.P.NO.47 of 2017 & Review Petition No.1 of 2020 in O.P.No.47 of 2017, Order dated 28.09.2022 in RP No.4 of 2022 in OP No.52 of 2019. However, before proceeding to the determination of tariff, the following aspects need to be decided by the Commission.

    a. Additional Capital Costs incurred by the APPDCL
    b. Rate of debt and accordingly the rate of RoCE/WACC
    c. Cost of coal, oil and Receivables in working capital computations
    d. Availability of the SDSTPS at 85% or 80%

e. 20 per cent additional O&M costs over the norms, Water Charges plus Security Charges
f. Operating parameters for determination of Energy/Variable Charges

12. Each point-wise analysis and decision of the Commission after considering all the views of the stakeholders, and submissions of Responsendts and Applicant are detailed hereunder.

a. **Additional Capital Cost incurred by the APPDCL:** The Applicant claimed additional capitalisation of Rs.554.33 Cr. Though the Respondents in their counter opposed the same initially, later it was agreed in the Joint Memo filed by the Applicant and the Respondents on 28.06.2023 to consider the Sea Water Intake Outfall (SWIO) package amount of Rs. 268 Cr as an additional capitalization amount. The stakeholders including the Respondents in the initial counter have mistakenly interpreted the additional capital expenditure claimed as Rs.2771.65 Cr. In this regard, it is relevant to refer to the Commission's earlier Orders to decide this issue. The relevant parts of the earlier orders are placed below:

O.P. No. 21 of 2016, Order Dated.13-07-2018 (Approval of PPA)

"*12. The decision of the Commission on the following issues needs to be given effect to by way of discussion by the parties and submitting suitable amendments duly executed to the amended PPA and submitted in the Commission for consent within 60 days from the date of this order:*

a. At paras 10 (d) relating to payment of fixed charges on normative availability of power of 85% of the capacity and the incentive also to commence from above 85%.

b. At paras 10 (f) (iii) relating to non-payment of fixed charges for backing down & third party sales by APPDCL in such an eventuality and

c. At paras 10 (f) (v) relating to deletion of stipulation to claim fixed charges during force majeure"

O.P.No.47 of 2017 & I.A.No.28 of 2017, Order Dated. 02-03-2019 (Capital Cost and Tariff determination for 4th CP)

"f. The parties (either or both of them) are at liberty to approach the Commission with an appropriate petition for adjudication and determination of any of the disputes/differences between them relating to the issues specified in para 12 of the order of this Commission in O.P.No.21 of 2016 between the parties decided on 13-07-2018 and about the operating parameters applicable during the operation of the units under sub-critical mode or supercritical mode."

On examination of the above, the issue of additional capital cost is not covered in the dispute between the parties referred to in the directions. The

Applicant filed a Review Petition No 2 of 2019 in OP NO 47 of 2017. In the Review Petition, Inter alia, the Applicant sought to consider the additional capital expenditure incurred towards Sea Water Intake and Outfall (SWIO) over and the above approval accorded in OP NO 47 of 2017 which it claimed in the present application. The Commission dismissed the said Review Petition vide Order dated 08.04.2021 in Review Petition No.2 of 2019 in O.P.NO.47 of 2017 & Review Petition No.1 of 2020 in O.P.No.47 of 2017. The Commission's view (Pages 28 & 29) from the said order rejecting the additional claim is placed below.

""(iii) Sea Water Intake and OUtfall (SWIO): Coming to the claim for inclusion of SWIO system, the Commission in its order in O.P.No.47/2017 has excluded this expenditure from the capital cost on the following reasons:

" … As can be seen at item No.2.3 in Form-5B (an annexure to the CERC order dated 4.6.2012), 'Water System' is mentioned under which, 'external water supply system' is included among other things. Whether the water is fetched from the nearby canal/river or from sea is a different aspect. Since the 'external water supply system' is included under 'water system' it can be reasonably presumed that the expenditure incurred towards sea water intake and outfall system is covered under 'external water supply system' and hence it need not be specifically allowed over and above the mandatory package."

As could be seen from the above the Commission spoke its mind by giving specific reasons for not accepting the petitioner's claim for inclusion of cost allegedly spent under this head. The finding of the Commission is based on the Explanatory Memorandum of the CERC. This Commission is of the opinion that the above findings of the Commission do not suffer from any error apparent on the face of the record. Even assuming that the reasoning of the Commission suffers from any error, every error need not be corrected under Review unless such errors constitute errors apparent on the face of the record. As the object of Review is not to rehear the case as held in Devender Pal Singh Vs. State of NCT of Delhi (supra), if the petitioner feels that the reasoning or the finding of this Commission is not correct, it has to only seek its further remedies before the higher fora. Instead of availing such remedies, the petitioner is virtually seeking rehearing of the O.P. which is not permissible in law. Therefore, the order in O.P.No.47/2017 does not require any Review on the above aspects discussed.""

As can be seen from the above, the Commission has rejected the additional expenditure claim in the Review Petition including the expenditure incurred on Sea Water Intake and Outfall (SWIO). This order has attained finality. Contrary to the above decision of the Commission, the parties agreed to include Rs.268 Cr as additional capital expenditure in the joint memo filed before this Commission. As the Joint Memo is not in conformity with the directions of the Commission in the relevant earlier orders issued on SDSTPS, the Commission is not inclined to accept the same.

b. **Rate of debt and accordingly the rate of RoCE/WACC:** The Applicant claimed the Rate of RoCE/WACC as 11.8 per cent considering the rate of debt at 10.2 per cent from PFC and Return on Equity at 15.5 per cent as per CERC Regulation. The Respondents in their counter requested the Commission to consider the rate of RoCE/WACC at 11.2 per cent only on par with the last two years of the previous control period in line with the Commission's Order in OP.NO.47 of 2017. However, the Applicant and Respondents agreed to 11.8 per cent in a Joint Memo. In this regard, the Commission has examined the information furnished by the Applicant in Form 13 regarding the calculation of the Weighted Average Rate of Interest on Actual Loans. As can be seen from Form 13, the loan profile and rate of interest were not changed as considered by the Commission for the last two years of the 3rd control period in its order dated 02.03.2019 in OP No 47 of 2017 while determining the tariffs. Therefore, though the parties in a Joint Memo agreed on an 11.8 per cent, in the consumer interest, the Commission is inclined to consider the rate of RoCE/WACC as 11.2 per cent as per the actual loan profile and rate of interest.

c. **Cost of coal, oil and Receivables in working capital computations:** The Applicant considered the cost of coal for one month, the cost of oil for two months and the receivable for two months in the computation of working capital requirement for arriving at RoCE accordingly. The Respondents in their counter have opposed the same. However, in the joint memo submitted to the Commission later, they agreed to one month's coal stock cost and two months' receivables as per PPA. The stakeholders also have a concern about the consideration of the one-month coal stock cost in the computation of the working capital by the applicant. After considering all the aspects holistically including the reasons stated by APPDCL for not maintaining coal stocks as per norms in its reply to objections, the Commission is inclined to consider the cost of coal for one month, the cost of oil for one month and the receivable for two months in the computation of working capital requirement for arriving at RoCE consistent with its earlier order dated 02.03.2019 in determining the tariffs for the 3rd control period to SDSTPS.

d. **Availability of the SDSTPS at 85% or 80%:** The Applicant considered the availability of 80 per cent for computation of tariff in its application**.** The stakeholders and the Respondents in their counter opposed the same and requested the Commission to consider the availability at 85 per cent. About considering 80% normative availability in the computation of tariff, the applicant stated that the issue was indeed pending in O.P. 52 of 2019 before the Commission at the time of filing. The OP.No.52 of 2019 was filed before the Commission by the Respondents to resolve the disputes/differences with the Applicant as specified in para 12 of the order dated 13-07-2018 of the Commission in O.P.No.21 of 2016 in respect of the amended and restated Power Purchase Agreement dated 24-08-2016. The Commission by disposing of the aforesaid OP by Order dated 13.08.2020 inter alia held that the target availability for full recovery of annual fixed charges shall be 85% without there being any additional cost on the present Respondents on fuel cost and the target Plant Load Factor for incentive shall be 85%. However, the Applicant filed a Review Petition no 4 of 2022 on the same. The Commission by the Order dated 27.09.2022 disposed of the said Review Petition in terms of the undated Joint Memo filed on 27-9-2022. The Joint Memo extracts from the Order is placed below.

“ Both the parties filed an undated Joint Memo, wherein it is, inter alia, stated as under

1) The Petitioner & Respondents (1, 2 & 3) submit that in the above case, after prolonged deliberations, both the parties (i.e., APPDCL & APDISCOMs) have agreed to resolve the issue in the presence of the Special Chief Secretary/Energy & Chairman/APPCC, vide: APPCC meeting held on 5-9-2022. As such the respondents (1, 2 & 3) <u>have agreed to consider 85% of threshold PLF with effect from the date of obtaining additional FSA</u>.

2) In this regard, the Respondents (1, 2 & 3) and the Petitioner (APPDCL) submit that Hon’ble APERC may be pleased to pass orders in terms of said resolution of the dispute towards full and final settlement of payment of fixed charges on normative availability of power of 85% of the capacity and the payment of incentive also to commence from above 85% between the parties from the said date of obtaining additional FSA.

3) Further, the DlSCOMs pray for the liberty from the Hon'ble Commission to permit them to claim the amount as true up claim in further course of time.
4) In view of the above, the Petitioner and Respondents (1, 2 & 3) humbly pray that the Hon'ble Commission may be pleased to dispose of the petition filed by M/s APPDCL in term of said agreement of parties"

The disposal of the Review petition in OP NO 52 of 2019 is in line with the directions of the erstwhile Commission in the order dated 13.07.2018 in OP NO 21 of 2016 and Order dated 02.03.2019 in OP NO 47 of 2017 in the matter of availability of SDSTPS. Therefore, as the availability of SDSTPS is attainted finality in the Order dated 27.09.2022 of the Commission and accordingly it is proposed to consider the 80 per cent availability up to the date of obtaining additional FSA. and the availability of 85 per cent from the date of obtaining additional FSA in the computation of tariff wherever applicable in the present order. The APPDCL obtained the additional FSA on 30.09.2021.

e. **20 per cent additional O&M costs over the norms, Water Charges plus Security Charges:** All the stakeholders including the Respondents have opposed the additional 20 per cent claim on the norms. In this regard, it is relevant to refer to the erstwhile Commission's stand in its order dated 02.03.2019 on this matter and the same is placed below.

"The matter has been examined. This Commission has been consistently in 1st, 2nd and 3rd control periods for FY 2006-09, FY 2009-14 & FY 2014-19 has been allowing the impact of pay revisions while issuing the APGENCO Tariff orders, as can be seen from the order dated 26.03.2016 in the matter of determination of Tariff of APGENCO generating stations for the control period from 01.04.2014 to 31.03.2019 in O.P. No. 03 of 2016. In the same order, it is also stated that even the present Commission allowed the impact of pay revisions in the orders for true-up of transmission and distribution tariffs for the 2nd control period i.e. FY 2009-2014 as periodic pay revisions and/or statutory wage increases are unavoidable to the extent they are prudent. Vide the same order, it is also reported that CERC is also allowing the impact of pay revisions in its tariff orders whenever such revision takes place. That being the case, a different treatment can't be meted out to APPDCL which is promoted by APGENCO, DISCOMs & GoAP"

It is also relevant to refer to the erstwhile Commission's observations in its order dated 29.04.2019 on the pay revision commitment sought by APGENCO for the 4th control period i.e from FY 2019-2024 for its employees at 20% of O&M expenses over the norms approved by the CERC for thermal plants.

"The erstwhile Commission considered the impact of pay revisions in 2006 and 2010 while approving the tariff of APGENCO Stations for the first and second control periods i.e. FY 2006-07 to FY 2008-09 and FY2009-10 to FY2013-14. The present Commission also approved the pay revision commitment of 20% while approving the tariff of APGENCO stations for the third control period FY2014-15 to FY2018-19 in OP. No. 3 of 2016 as periodic pay revisions and/or statutory wage increases are unavoidable to the extent they are prudent. The tripartite agreements entered into between GoAP, APSEB and unions/associations in terms of the AP Electricity Reform Act, 1998 provide for wage revisions of the employees. Further, even CERC has also been allowing the impact pay revisions in its tariff orders whenever such revisions take place. The Commission has examined the actual pay revision impact based on the actuals figures up to September,2018 which are obtained subsequently and found that it is more than 30% and therefore, the impact of pay revision at 20% in 2018 as sought by APGENCO has been considered."

Further, this Commission has also allowed by the Order dated 30.03.2022 the variations in employees' cost due to pay revisions as uncontrollable items while passing the order on Distribution & Transmission Business True up for the 3rd control period.

It is stated by the APPDCL that the employees of APGENCO have been working in APPDCL on deputation and that they are to be paid by APPDCL. Therefore, APPDCL requests that the costs of such employees working in APPDCL be allowed to it in the same manner as the employee cost of APGENCO working in the latter, as is being allowed. Also, the Commission does not find any reason to consider the suggestion of one of the stakeholders that any amounts received by generators of power, including APGENCO, on account of sending its employees on deputation to other organisations or for rendering services to other organisations should be treated as non-tariff income and factored in the tariff since the Commission is allowing the O&M costs based on norms and not on the actual basis. Further, there would not be any true up/down of Annual Fixed Charges in respect of GENCOs as per the extant Regulations.

Given the foregoing, there is no reason to deviate from the earlier practice and therefore the Commission is inclined to accept the additional 20 per cent claim over the norms and escalation rates for year on year in respect of O&M costs as approved by CERC in its Tariff Regulation 2009.

f. **Operating parameters for determination of Energy/Variable Charges:** The applicant proposed to consider two scenarios supercritical and subcritical modes of operations separately for claiming energy/variable charges with different station heat rates, auxiliary consumption, and specific oil consumption for supercritical and subcritical modes for the practical reasons explained. The Respondents stated that the Regulation does not provide/permit such scenarios and hence the operating parameters applicable for super critical mode as per CERC Tariff Regulation need to be considered. The stakeholders also opposed the proposal of the Applicant. However, vide joint memo dated 27.06.2023, the parties requested the Commission to consider Specific oil consumption as 0.5 ml/kWh with effect from 01-04-2023. It is also relevant to refer to the erstwhile Commission's views on the mode of operation of the SDSTPS plant in its Order dated 02.03.2019 in O.P No.47 of 2017 which are placed below.

" *f) As regards the operating parameters applicable when units are operated under sub-critical technology, Regulation 1 of 2008 as well as CERC Regulation are silent. However, the Applicant has requested for certain parameters applicable for sub-critical operation as mentioned supra. The CERC notification L-1/18/2010-CERC dated 6th April 2016 provides for compensation in case of operating units below normative levels. However, the same is not reflected in the PPA. As such, the parties may negotiate between themselves, if they so desire and the agreed position may be incorporated as an amendment to the PPA. Notwithstanding the above, the Applicant and respondents are advised to operate the plant in supercritical mode in order to improve the efficiency and reduce the cost, however, keeping in view merit order considerations.* "

The applicant considered the station heat rate, auxiliary consumption and specific oil consumption as per PPA for supercritical mode of operation. In the Commission's view, there is no merit in the claim of the Applicant for whatsoever reasons to consider the two scenarios with different operating parameters for arriving at the energy charges. Since the machines are of supercritical technology and their capacity is to be despatched as per the Grid requirement based on the readiness/availability of the machines and fuel stock of required quality. The technical limits for the operation of the units have been specified in the PPA and also in the Indian Electricity Grid Code. If the machines operate below technical limits specified in PPA/IEGC, if the APPDCL incurs any extra expenditure for such operation during the financial year, it may approach this Commission for compensation with detailed justification on such claim. Hence for the aforesaid reasons, the Commission is not inclined to consider the proposal of two scenarios for the operation of its machines. Hence, it is proposed to consider the operating parameters applicable for the supercritical mode of operation as contained in PPA in the computation of energy charges. However, the specific oil consumption at 0.5 ml per kWh from 01.04.2023 is considered as agreed by the parties in their joint memo dated 27.06.2023 as the same is in terms of the erstwhile Commission's Orders dated 13.07.2018 in OP.NO.21 of 2016 and dated 13.07.2018 in OP.No.47 of 2017 which are stated supra.

13. In terms of the decision arrived at in the previous para of this order, the Commission recomputed all the components of Annual Fixed Charges (AFC) in the same manner as computed by the Applicant as there is no infirmity found in the method of computations adopted by the Applicant qua extant regulations/rules/orders of the Commission. The determination of various components vis-a-vis filings is shown below:

A. **Depreciation for the period 01.04.2019 to 31.03.2024**

S. No.	Particulars	FY 2019-20 (Rs Cr)	FY 2020-21 (Rs Cr)	FY 2021-22 (Rs Cr)	FY 2022-23 (Rs Cr)	FY 2023-24 (Rs Cr)
1	**Depreciation**	295.94	295.94	295.94	295.94	295.94
2	**90% of Depreciation**	**266.35**	**266.35**	**266.35**	**266.35**	**266.35**
3	**As per Filings**	311.18	311.18	311.18	311.18	311.18
4	**90% of Filings**	**280.07**	**280.07**	**280.07**	**280.07**	**280.07**
5	**Difference (4-2)**	**13.72**	**13.72**	**13.72**	**13.72**	**13.72**

B. **ROCE**

a. WACC determined for the period 01.04.2019 to 31.03.2024

	Rates of ROCE					
S.No.	**Financial Year**	**Debt**	**Equity**	**Rate of Interest**	**Return on equity**	**WACC**
1	2019-20	70%	30%	9.30%	15.50%	11.2%
2	2020-21	70%	30%	9.30%	15.50%	11.2%
3	2021-22	70%	30%	9.30%	15.50%	11.2%
4	2022-23	70%	30%	9.30%	15.50%	11.2%
5	2023-24	70%	30%	9.30%	15.50%	11.2%

b. Working capital approved for the period 01.04.2019 to 31.03.2024

	WORKING CAPITAL					
S. No.	**Particulars**	**FY 2019-20 (Rs Cr)**	**FY 2020-21 (Rs Cr)**	**FY 2021-22 (Rs Cr)**	**FY 2022-23 (Rs Cr)**	**FY 2023-24 (Rs Cr)**
1	Cost of Coal stock for 1 month	238.23	238.23	245.68	253.12	253.12
2	Cost of Secondary fuel oil for 1 month	7.56	7.56	7.79	8.03	2.01
3	O&M Expenses for 1 month	29.17	30.19	31.25	32.35	33.48
4	Maintenance spares-1% o historical cost	125.89	130.92	136.16	141.61	147.27
5	Sales receivables 2 month	835.21	831.80	845.36	858.99	842.59
6	**Total Working Capital (1+2+3+4+5)**	1236.05	1238.70	1266.24	1294.10	1278.47
7	**90% of Total Working Capital**	**1112.45**	**1114.83**	**1139.62**	**1164.69**	**1150.63**
8	**As per Filings**	1284.07	1298.36	1301.87	1305.27	1309.03
9	**90% of Filings**	**1155.67**	**1168.53**	**1171.68**	**1174.75**	**1178.12**
10	**Difference**	**43.22**	**53.70**	**32.06**	**10.06**	**27.49**

c. RoCE for the period 01.04.2019 to 31.03.2024

S. No.	Particulars	FY 2019-20 (Rs Cr)	FY 2020-21 (Rs Cr)	FY 2021-22 (Rs Cr)	FY 2022-23 (Rs Cr)	FY 2023-24 (Rs Cr)
1	Original Capital Cost	10761.40	10761.40	10761.40	10761.40	10761.40
2	Less accumulated Depreciation	1148.49	1444.43	1740.37	2036.31	2332.25
3	Working Capital	1236.05	1238.70	1266.24	1294.10	1278.47
4	**Total (1-2+3)**	**10848.96**	**10555.67**	**10287.27**	**10019.19**	**9707.62**
5	Rate of RoCE	11.2%	11.2%	11.2%	11.2%	11.2%
6	**RoCE (4x5)**	1210.74	1178.01	1148.06	1118.14	1083.37
7	**90% of ROCE determined**	**1089.67**	**1060.21**	**1033.25**	**1006.33**	**975.03**
8	**As per Filings**	1351.25	1316.22	1279.92	1243.60	1207.32
9	**90% of ROCE**	**1216.13**	**1184.60**	**1151.92**	**1119.24**	**1086.59**
10	**Difference (9-7)**	**126.46**	**124.39**	**118.67**	**112.91**	**111.56**

C. **O&M Charges for the period 01.04.2019 to 31.03.2024**

S.No.	Particulars	FY 2019-20 (Rs Cr)	FY 2020-21 (Rs Cr)	FY 2021-22 (Rs Cr)	FY 2022-23 (Rs Cr)	FY 2023-24 (Rs Cr)
1	Capacity	1600	1600	1600	1600	1600
2	Period	1 year	1 year	1 year	1 year	1 year
3	O&M Charges in Rs. Lakshs/MW	21.88	22.64	23.44	24.26	25.11
4	Total O&M Charges in Crores (1+2+3)	350.02	362.30	375.02	388.18	401.81
5	**90% of O&M Charges in crores**	**315.01**	**326.07**	**337.52**	**349.36**	**361.63**
6	**As per Filings**	362.02	374.78	388.00	401.68	415.84
7	**90% of Filings**	**325.82**	**337.30**	**349.20**	**361.51**	**374.26**
8	**Difference (7-5)**	**10.80**	**11.23**	**11.68**	**12.15**	**12.63**

D. **Annual Fixed Charges for the period 01.04.2019 to 31.03.2024**

S. No.	Particulars	FY 2019-20 (Rs Cr)	FY 2020-21 (Rs Cr)	FY 2021-22 (Rs Cr)	FY 2022-23 (Rs Cr)	FY 2023-24 (Rs Cr)	Control Period
1	RoCE	1210.74	1178.01	1148.06	1118.14	1083.37	5738.33
2	Depreciation	295.94	295.94	295.94	295.94	295.94	1479.70
3	Annual O&M expenses	350.02	362.30	375.02	388.18	401.81	1877.32
4	**Total (1+2+3)**	**1856.70**	**1836.25**	**1819.02**	**1802.26**	**1781.12**	**9095.35**
5	**90% of Fixed Charges**	**1671.03**	**1652.63**	**1637.12**	**1622.04**	**1603.01**	**8185.82**
6	**As per Filings**	2024.46	2002.18	1979.10	1979.10	1934.35	9919.19
7	**90 % of Filings**	**1822.01**	**1801.97**	**1781.19**	**1760.82**	**1740.91**	**8906.90**
8	**Difference (7-5)**	**150.98**	**149.34**	**144.07**	**138.78**	**137.90**	**721.08**

14. The Commission computed energy charges as per Regulation 1 of 2008 at the operating parameters of this Order. The specific oil consumption of 2 ml up to 31.03.2023 and 0.5 ml from 01.04.2023 is considered. The Commission permitted the SDSTPS to blend imported coal with domestic coal based on the grid requirement during FY2022-23 and FY 2023-24 through various orders. Accordingly, it computed the energy /variable charges as shown below:

Energy Charges for the period 01.04.2019 to 31.03.2024

Up to 31.03.2023	**Domestic Coal**	**10% imported coal**	**20% imported coal**	**30% imported coal**
Station Heat Rate(Kcal/kWh)	2302	2302	2302	2302
Auxiliary Consumption (%)	6.5	6.5	6.5	6.5
Landed Cost of Coal(Rs/Ton)	4700	5480	6260	7040
GCV of Coal(KCAL/Kg)	4150	4285	4420	4555
GCV of oil (Kcal/L)	10000	10000	10000	10000
Price of oil (Rs/kL)	41000	41000	41000	41000
Specific Oil Consumption(ml/kWh)	2	2	2	2
Variable Cost(Rs./kWh)	**2.85**	**3.21**	**3.54**	**3.86**

From 01.04.2023	Domestic Coal	10% imported coal	20% imported coal	30% imported coal
Station Heat Rate(Kcal/kWh)	2302	2302	2302	2302
Auxiliary Consumption (%)	6.5	6.5	6.5	6.5
Landed Cost of Coal(Rs/Ton)	4700	5480	6260	7040
GCV of Coal(KCAL/Kg)	4150	4285	4420	4555
GCV of oil (Kcal/L)	10000	10000	10000	10000
Price of oil (Rs/kL)	41000	41000	41000	41000
Specific Oil Consumption(ml/kWh)	0.5	0.5	0.5	0.5
Variable Cost(Rs./kWh)	**2.80**	**3.16**	**3.50**	**3.82**

Referring to the order of the Commission in O.P. No. 35 of 2018, the Applicant requested the Commission to direct the Respondents to admit up to 15% positive variation over base price straightaway for payment; and if the variation is over 15% on the base price, the variation may be limited to 15% for payment subject to the scrutiny and approval of the Commission in respect of the variation exceeding 15% as directed by the Commission in O.P. No. 35 of 2018 for APGENCO. The landed cost of fuel varies from Rs. Rs.4058 to Rs. 6330 per ton as per the data furnished by APPDCL in its claims before the Respondents from 01.04.2019 to 31.03.2023. The Commission computed the energy charges at the landed cost of fuel of Rs,4700 per ton as considered by the Applicant which is near to the average value of 4 years. The Regulation 1 of 2008 allows the applicant to claim as per actuals. However, to have regulatory scrutiny on the claims of energy charges, in exercise of the powers under section 86 (1) (b) of the Electricity Act, 2003, the Commission directs the Respondents to admit up to 15% positive variation over the base price of energy charges determined in the present order for payment; and if the variation is over 15% on the base price, the variation may be limited to 15% for payment subject to the scrutiny and approval of the Commission in respect of the variation exceeding 15%. Further, the Base price with imported coal is determined at 10 %, 20% and 30% of blending ratios, and therefore, if the blending ratio is in between the ratios considered in the above computation, the base price may be modified correspondingly.

15. **Sharing of the gains**: The Respondents requested the Commission to issue directions to APPDCL for sharing of any financial gains with APDISCOMs on account of better Station Heat Rate, Auxiliary Consumption, Fuel Consumption, Restructuring of

loans, CDM (Clean Development Mechanism) benefits and Non-Tariff income. APPDCL has agreed to the same vide joint memo dated 27.06.2023 despite there being no such provision in PPA. As the decision of the APPDCL would benefit the consumer public, the Commission is inclined to direct the APPDCL to honour its decision vide the Joint Memo Dated 13.07.2023 on sharing financial gain if any with intimation to the Commission. In the context of the request of the Respondents to share financial gains if any on different aspects, one of the stakeholders suggested to the Commission to bring about an appropriate amendment to the regulation applicable, providing for the sharing of such financial gains which accrue to generators of power under PPAs in force since the regulations of ERCs are very much liberal in prescribing normative parameters for the determination of generation tariffs, there is scope for earning concealed profits by generators of power. All such costs are also covered in the tariffs determined by the respective Commissions. This fact can be ascertained by examining the audited annual accounts and the actual performance of the projects concerned, he stated. In this regard, the Stakeholder shall note that this is a complex issue and also, once the regulation is to be amended to share financial gains on any count, there shall be provision for sharing losses as a balancing act of all the parties which is not desirable. Therefore, the Commission is not inclined to consider this suggestion.

16. **The directions given by the Commission to APGENCO in MYT Order dated 29.04.2019 making applicable to APPDCL regarding sampling, and testing of coal on grade slippage**: The Commission has given certain directions to APGENCO about the procedure for sampling, testing and calculation of GCV of coal as set out in paras 62 to 64 of the APERC order dated 29.04.2019 to have proper checks and balances in the fuel management. The Respondents have requested to make applicable all the said directions to APPDCL. Hence, the Commission directs APPDCL to follow the directions given in Paras 62 of 64 of the APERC order dated 29.04.2019 scrupulously.

17. The APCPDCL on behalf of all the respondents through a letter dated 21.09.2023 sought the directions of the Commission on the modification sought to the PPA dated 24.08.2016 by the APPDCL regarding the target availability. The request sought by APPDCL is only regarding target availability despite the other issues that also have attained finality. Therefore, the Respondents and the Applicant shall submit all amendments in one go duly signed both parties as per the procedure in vogue.

18. In the result,

a. The Annual Fixed Charges filed and Approved for the period 01.04.2019 to 31.03.2024 are as shown below:

S.No.	FY	Filed (Rs.Cr)	Approved (Rs.Cr)	Difference (Rs. Cr)
1	**2019-20**	1822.01	1671.03	150.98
2	**2020-21**	1801.97	1652.63	149.34
3	**2021-22**	1781.19	1637.12	144.07
4	**2022-23**	1760.82	1622.04	138.78
5	**2023-24**	1740.91	1603.01	137.90
	Total	**8906.90**	**8185.82**	**721.08**

b. The fixed charges determined duly considering the applicable normative availability of the plant. The same is adjustable to actual availability.

c. The energy charges shall be paid as per this Order.

d. The Income tax, Incentive shall be paid as per the terms and conditions of the PPA consented by the Commission and as per Regulation 1 of 2008.

e. The procedure for sampling, testing and calculation of GCV of coal as set out in paras 62 to 64 of the APERC order dated 29.04.2019 shall be followed by APPDCL to have proper checks and balances in fuel management.

f. APPDCL shall share financial gains if any. as per the directions contained in this Order.

g. The amendment to PPA dated 24.08.2016 shall be submitted as per the directions in this Order.

19. Accordingly, the Application is disposed of in terms of the above directions.

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