



ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

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

WEDNESDAY, THE TWENTY-SEVENTH DAY OF MARCH
TWO THOUSAND AND TWENTY-FOUR
(27.03.2024)

Present

Justice C.V.Nagarjuna Reddy, Chairman

T.Rama Singh, Member

P.V.R. Reddy, Member

In the matter of Fuel Cost Adjustment (FCA) beyond 15% of the base variable cost for all the thermal power stations of APGENCO during the FY 2018-19 to FY 2022-23, and the revision of the base variable cost for FY 2023-24.

O.P.No.60 of 2023

Between

Andhra Pradesh Power Generation Corporation Limited ... 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 18.03.2024 in the presence of Sri K. Gopal Choudary, Learned counsel for the applicant and Sri P. Shiva Rao, Learned Standing Counsel for the respondent(s). After carefully considering the material available on record and after hearing the arguments of the parties, the Commission passes the following:

ORDER

1. The Andhra Pradesh Power Generation Corporation Limited (APGENCO) (for short **“the Applicant”** or **“the Petitioner”**) has filed this application for the Commission’s approval of fuel cost adjustment beyond 15% of the base variable cost for all its thermal power stations during the FY 2018-19 to FY 2022-23, and also to reset/ revise the base variable cost for FY 2023-24. The Applicant arrayed the Southern Power Distribution Company of Andhra Pradesh Ltd (APSPDCL), Eastern Power Distribution Company of Andhra Pradesh Ltd, (APEPDCL), and Central Power Distribution Corporation of Andhra Pradesh Limited (APCPDCL) as the Respondents.

2. The relevant facts narrated by the Applicant as under:

2.1. That the Commission had determined the Fixed Cost and Variable Cost components of tariff for all the thermal power stations of APGENCO for the five-year 4th control period FY 2019-24 by the following orders:

- Order dated 29.04.2019 in O.P. No. 35 of 2018 for all thermal stations/ units except RTPP Stage-IV.
- Order dated 31.12.2020 in O.P. No. 33 of 2019 for RTPP Stage-IV (including FY 2018-19)

2.2. That the base variable cost fixed in the aforesaid orders based on the operating norms and the base costs of fuel and oil is as follows:-

Base Variable Costs							
Station	SHR	GCV of coal	Specific Oil	Aux	Landed cost of coal	Landed cost of oil	Base Variable Cost
	kcal/kWh	kcal/kg	ml/kWh	%	Rs./MT	Rs./kl	Rs./kWh
NTTPS O&M	2550	3420	2	9	3450	35,000	2.90
NTTPS-IV	2450	3768	2	7.5	3800	35,000	2.74
RTPP-I, II & III	2500	3420	2	9	4100	35,000	3.36
RTPP-IV	2390	3450	0.5	5.75	4354	39,500	3.21

2.3. That the aforesaid base variable costs are subject to fuel cost adjustment from time to time following Regulation 1 of 2008 based on the landed cost of coal at actuals and the GCV of coal in as-fired condition.

2.4. That there have been substantial increase in the landed cost of coal and oil from time to time over and above that considered by the Commission in

arriving at the base variable cost. The variations in the cost of coal from April 2019 to April 2023, along with the relevant price circulars/notifications from SCCL, and MCL relating to the cost of coal were filed along with the Application.

- 2.5. That the SCCL and MCL have been supplying different grades of coal from different mines varying from G-12 to G-15 resulting in variations in GCV and moisture content and an increase in the variable cost.
- 2.6. That as per Para 61 of Order in OP No. 35 of 2018, dated 29th April 2019, the variation over and above 15% in Fuel Cost Adjustment bills shall be paid subject to scrutiny and approval of the Commission in respect of all the thermal stations of APGENCO except RTPP IV. The relevant part of Para 63 is reproduced herein.

“The fuel cost adjustment bills in accordance with Regulation 1 of 2008 shall be paid subject to variation of 15%. Variation over and above 15% is subject to scrutiny and approval of the Commission for payment and the payment should be limited to 15% until the Commission approves such an excess variation.”

A similar condition was stipulated in para F (iii) of the Order in O.P. 33 of 2019 dated 31.12.2020 in respect of RTPP IV.

Based on the above, the Applicant's claim on FCA in excess of 15%, year-wise is shown in the table below.

FY	Total claim of variable costs	Total claim with FCA within 15%	FCA in excess of 15%
	Rs. Cr.	Rs. Cr.	Rs. Cr.
2018-19	407.32	369.99	37.33
2019-20	3,269.16	3,064.05	205.11
2020-21	3,091.85	3,091.85	0.00
2021-22	5,725.89	5,725.89	0.00
2022-23	7,433.89	6,527.61	906.28
Total			1,148.72

The huge funds were locked up as shown above and because of this, it is suffering from serious cash flow problems.

- 2.7. The Applicant stated that the variable cost based on the actual landed cost of fuels and GCV of coal for April 2023 for each of its stations/units is as follows:-

Station	Landed cost of coal	GCV of coal	Landed cost of Oil	Variable Cost
	Rs. / MT	kcal / kg	Rs. / kl	Rs. /kWh
NTTPS O&M	4,141	2,875	51,897	4.12
NTTPS-IV	4,882	3,366	51,897	3.92
RTPP-I, II & III	4,998	3,237	63,729	4.35
RTPP-IV	5,424	3,317	63,502	4.17

Keeping in view the substantial increase in the costs of fuels, and the need for the Applicant's cash flow commensurate with the actual variable costs being incurred, the Commission may consider re-setting the base variable cost for FY 2023-24 based on the actual variable cost of April 2023 for FY2023-24.

- 2.8. Narrating the above, the Applicant prayed for the following
- Approve the Fuel Cost claim of the Petitioner for Rs.1,148.72 crores for FY2018-2023;
 - Direct the Respondent licensees to forthwith pay to the Petitioner the balance of the unpaid amount of Fuel Cost Adjustment as approved by the Commission for FY 2018-2023;
 - Reset/ revise the base rate of variable cost for FY 2023-24 based on the actual costs and GCV for April 2023;
 - Direct the Respondent licensees to pay the revised rate of variable cost for FY 2023-24 and to further pay Fuel Cost Adjustment up to 15% thereon subject to the condition that payment beyond the said 15% shall be subject to the scrutiny and approval of the Commission;
 - and/or to pass such further or other orders as the Commission considers fit or expedient in the facts and circumstances of the case so that justice may be done.
3. The Application was taken on the Commission's records as OP.No.60 of 2023 and issued notice to the parties. On the directions of the Commission, the information in brief regarding the application was also published in newspapers by the Applicant. No objections were received from the public.. The Respondents have filed a counter to the Application.
4. The main submissions of the Respondents in their counter are as under.

- 4.1. APDISCOMs have been admitting the Fuel Cost Adjustment bills (FCA) of APGENCO thermal stations following the directions issued by the Commission. The fuel cost adjustment bills of every thermal station of APGENCO are being verified based on the details furnished by APGENCO in monthly Form-15 (i.e., as specified by Hon'ble CERC) such as weighted average cost of Coal, Oil and weighted average GCV of Coal and Oil duly considering the operating norms prescribed by APERC. Upon verification of the above, the FCA bills are being admitted by APDISCOMs duly limiting to 15% of the base value of variable cost and the variation over and above 15% of the base value is disallowed for making payment following the directions of APERC. The DISCOMS have not disputed the figures of FCA claims. However, DISCOMS stated that APGENCO is not submitting the invoices for the fuel and transportation of fuel except the consolidated information in a format specified by the Central Commission (Form-15). Further, the DISCOMS stated that while calculating the energy charge rate, the GCV of coal on an "as-fired basis" is being considered as per APERC's Regulation 1 of 2008 and MYT Order for FY 2019-24, dated.29.04.2019. A margin of 105-120 kcal/kg for the non-pit head station is being considered as a loss of GCV of coal between "as received" and "as fired" as per the Central Electricity Authority (CEA) letter dated 17.10.2017. But as per CERC 2019 Regulations, for computation of energy charges, the gross calorific value of coal needs to be considered on an "as received" basis. Hence, the Commission may amend Regulation 1 of 2008 in line with the CERC Regulation.
- 4.2. The DISCOMS further stated that the Commission in its MYT Order dated 29.04.2019 directed APGENCO to reduce the station heat rate and auxiliary consumption by implementing the recommendations of Steag Energy Services India Pvt. Ltd. If the actual station heat rate was less than 2550 kCal/kWh, the APGENCO ought to have considered such a lower station heat rate for admitting Fuel Cost Adjustment (FCA) bills. However, APGENCO is claiming 2550 Kcal/kWh as the station heat rate for 210 MW units. Therefore, the Commission may direct APGENCO to report compliance with said MYT Orders.
- 4.3. That APERC directed APGENCO to explore long-term contracts with Coal producing companies through competitive bidding duly ensuring the Landed Price of the coal does not exceed the indicative prices. However, APGENCO has not made any efforts to reduce the landed price of coal. Had the APGENCO made efforts in this direction, APDISCOMs would have benefited

through saving of considerable amounts towards power purchase cost thereby reducing the burden on the end consumers in the form of FPPCA. Therefore, APGENCO may be directed to submit the compliance report on the said directions of the Commission.

- 4.4. The DISCOMS also stated that APGENCO shall maintain at least 15 days of Coal stocks to provide uninterrupted Power Supply. However, APGENCO failed to maintain such a quantum of coal stocks at any point of time since FY2018-19 and the actual coal stocks are much below the quantity required for 10 days. The same is evident from the reports of the Central Electricity Authority (CEA). In the absence of availability of required power from APGENCO, APDISCOMS were/are compelled to purchase power from Energy Exchanges to meet day-to-day grid demand and it has caused further financial burden to APDISCOMS. Hence, the Commission may pass orders for modifying the working capital portion to APGENCO for 10 days only, from the existing 60 days.
- 4.5. That APERC directed APGENCO to optimise the variable cost by following the guidelines issued by the Central Electricity Authority (CEA) in its letter dated 08.06.2016 on the methodology for flexibility in utilization of domestic coal for reducing the cost of power generation. However, APGENCO has not taken any steps towards the reduction of the cost of power generation. Therefore, the Commission may direct APGENCO to comply with the said directions.
- 4.6. That the team of engineers from APDISCOMS/APPCC visited Dr NTPS (6X210 MW+1X500 MW) on 30.06.2023 for verification of the established third-party sampling and testing systems. During the inspection, it was found that approximately one grade slippage was observed between the source end and the receiving end during April 2023. In this regard, APGENCO was requested to furnish the reasons and actions taken on the grade slippage.
- 4.7. That due to the provision of higher specific oil consumption (2ml/kWh) to APGENCO stations (except RTPP-IV), APDISCOMS are losing a considerable amount. Hence, a norm of 0.5 ml/kWh as per CERC Regulations 2019 may be considered for specific oil consumption.
- 4.8. Based on the above contentions, the DISCOMS prayed the Commission to limit the fuel cost adjustment to 15% over the base price as held in its MYT Order.

5. The Applicant filed its reply to the counter filed by the Respondents denying all the contentions of the DISCOMS except as admitted in the Application. The reply furnished by an Applicant on the DISCOMS' contentions in the counter are as under.
- 5.1. As regards the contention of furnishing invoices for fuel and transportation, it is not practically feasible to furnish every invoice for fuel and transportation which runs into thousands of pages. Therefore, the consolidated data in Form-15 as specified by the CERC is being furnished. The detailed information is available for verification by the DISCOMS and the Commission.
- 5.2. As regards the contention of the GCV on as-fired basis, the variation between the as-received basis and the as-fired basis can be as much as 150 to 250 kCl. The GCV of the coal "as fired" is being considered as per APERC Regulation 1 of 2008. The question of any change in the extant Regulation is beyond the scope of the present proceedings.
- 5.3. As regards the convention relating to station heat rate, the variable costs are being claimed as per the PPA, the operating norms in APERC Regulation 1 of 2008 and/or the orders of the Commission. Having regard to the fact that Dr. NTTPS Stages I, II & III, are vintage stations, (30-35 years old) the Commission has specially considered the SHR of 2550 kcal/kWh for these units. The actual heat rate of these units was 2581 kcal/kWh for FY 23 and 2545 kcal/kWh for FY 2023-24 up to September 2023. However, as per clause 3.1.3 of PPA, any savings in variable cost on APGENCO will be passed on to DISCOMs.
- 5.4. With regard to the contention of the long-term contract of coal, earlier, as per demand requirement, APGENCO was forced to procure coal from SCCL through an MoU due to which the base price of coal increased by 40% over the notified prices. However, APGENCO has made all-out efforts for the economy in coal prices by coordinating with CIL, MCL and SCCL by swapping FSA quantities at notified prices whereby additional costs of procuring coal through MoU have been avoided. The increase in coal cost is due to the revision of notified coal prices by SCCL/MCL as stated in the petition.
- 5.5. As regards the contention of reducing working capital, the working capital is computed based on 1 month of coal stock and 2 months of receivables as per Regulation. The receivables as of 30.09.2023 are over Rs.2121 crores excluding FCA claims and Rs.3514 crores including receivables. The receivables are therefore more than that prescribed by norms. This seriously

affects the cash flow of APGENCO. If working capital is locked up in receivables, the available working capital for maintaining coal stock is seriously affected. Until and unless the DISCOMs make payments regularly, the APGENCO cannot maintain the required coal stocks. Further, the availability is also affected and consequently, the fixed cost recovery is also affected. The Respondents have been directed to open LCs as per the Commission's proceedings dated 04.01.2023. The Respondents have not opened any LCs so far. The Respondents are not justified at all in raising such issues with unclean hands because the entire problem has arisen and is persisting due to the defaults of the Respondents themselves.

- 5.6. As regards the contention of flexible utilisation of domestic coal as per CEA guidelines, APGENCO has been the designated nodal agency for the flexi coal scheme only since 06.04.2020. During FY 2022-23 & 2023-24, coal was diverted from SDSTPS to RTPP as per the requirement indicated by SLDC. Unplanned coal diversions from station to station are being avoided to the extent possible to reduce additional logistic expenses and to reduce the landed cost of coal.
- 5.7. Regarding the contention of sample testing systems and grade slippage, at the loading end, the sample collection, preparation and analysis are carried out by CIMFR, A Govt. of India Undertaking. At the unloading end, an Independent Inspection Agency (IIA) ensures receipt of the billed grade of coal. About grade slippage, when a rake is received at thermal station, GCV is expressed "on equilibrated basis" (wagon coal analysis) and at the firing zone (bunker front) GCV is expressed on "as fired basis". Depending upon the total moisture, equilibrated moisture and inherent moisture, 150-250 units of GCV variation is possible between equilibrated basis and as fired basis. In addition to this variation, CEA has allowed a margin of 105 to 120 units between "wagon top at unloading point" and "firing of coal in boiler" for the non-pit head station. As the bandwidth of each coal grade is 300 units, one-grade variation may be possible between as received GCV on an equilibrated basis and at the firing end one on a fired basis. APGENCO has established one circle office at MCL/Talcher and one Divisional office at SCCL/Yellandu to ensure the billed grade of coal.

- 5.8. As regards the contention of the specific fuel consumption of oil, the specific fuel consumption is being considered as per the norms in the Regulation and/or the tariff order of the Commission. In any case, the variable charges are arrived at and restricted to the actuals if the actuals are lower than the normative. Further, the specific fuel consumption of 2 ml/kWh is required to be considered for the 210 MW and 500 MW plants due to operation at Technical Minimum Loads and also due to the vintage (nature) of such plants.
- 5.9. As regards the contention of limiting the FCA to only 15% over the base price, the Commission has never held that the FCA allowable is limited to 15% over the base price. The Application has been filed in pursuance of the provisions in the MYT tariff order.
- 5.10. Furnishing the replies as above, the Applicant prayed the Commission to allow the application as prayed.

Commission's Analysis and Decision

6. The Commission has examined the contentions raised by the DISCOMS and the replies furnished to the same by the Applicant. About the contentions raised by the Respondents on non submission of fuel and freight invoices by APGENCO, the Respondents were not prevented from undertaking random verification every month as directed by the Commission in MYT Order for the 4th control period and hence there is no merit in this argument, having regard to the voluminous data on the same. Regarding the amendment to Regulation 1 of 2008 for change of normative parameters such as station heat rate, specific oil consumption and the consideration of GCV on as fired basis for computation of variable cost, the CERC Tariff Regulations apply to the projects commissioned in the relevant period specified in the Regulations and not for the plants such as the ones involved in this petition. The APGENCO's old units already served their useful life and the application of the new norms requires an extensive study on the present performance of the units from time to time. However, for all new units, the Commission already made applicable operating norms as per the CERC Regulations applicable for the relevant period. Further, CERC Tariff Regulations 2019 also provide the GCV margin between "as Received basis" and "as fired basis" though GCV is measured on "as Received basis" for billing similar to APERC Tariff Regulations.
7. Nonetheless, the present proceedings are governed by the existing regulations and even if the regulations are amended in future, they will apply only prospectively.

The Commission is satisfied with the replies furnished by the petitioner on other contentions of the Respondents. The petitioner filed the present petition as per the directions of the Commission in MYT Order dated 29.04.2019 and hence there is no merit in the Respondent's submission that the Commission already fixed a 15 per cent ceiling on the base price and the FCA exceeding 15 per cent is not admissible. The FCA exceeding 15 per cent is admissible only on approval of the Commission after regulatory scrutiny. Accordingly, the Commission proposes to examine and carry out prudent checks on the Applicant's claims for admissibility of the same in the paragraphs infra.

8. The Month-wise and year-wise FCA claimed by the Applicant is shown below.

Month-Wise APGENCO FPA Charges over and above 15% (Rs. Crore)						
	FY 19	FY 20	FY 21	FY 22	FY 23	Total
Apr	0.00	30.02	0	0	13.44	43.46
May	0.93	11.32	0	0	68.34	80.59
Jun	0.00	13.36	0	0	73.66	87.02
Jul	0.00	17.85	0	0	62.21	80.06
Aug	0.00	32.66	0	0	59.51	92.17
Sep	9.67	19.3	0	0	51.85	80.82
Oct	0.44	23.66	0	0	78	102.1
Nov	0	12.42	0	0	51.3	63.72
Dec	12.85	12.78	0	0	78.96	104.59
Jan	6.81	6.31	0	0	116.81	129.93
Feb	5.94	10.49	0	0	118.15	134.58
Mar	0.69	14.95	0	0	134.09	149.73
Total	37.33	205.11	0.00	0.00	906.32	1148.76

9. As can be seen from the above table, the FCA claims are mainly for FY 2019-20 and FY 2022-23. The claim in FY 2018-19 is not significant and there are no claims in FY 2020-21 and FY 2021-22. The Applicant stated that the FCA is due to variation in fuel costs over the figures considered for computation of the base price in the MYT order for the 4th control period. The Commission obtained the relevant additional information from the Applicant in addition to the data provided in the Application. All the stations of APGENCO have two sources for fuel supply. One from Mahanadi Coal Limited (MCL) and the other from Singareni Collieries Company Limited (SCCL). It is stated by the Applicant that there was no considerable change in the landed cost of fuels due to freight.
10. Hence, the Commission has examined the price notifications issued by MCL and

SCCL from FY 20018-19 and their impact on the landed coal prices for each thermal station of APGENCO as shown in the tables below.

Impact of Price Notifications of SCCL on Dr.NTTPS								
Sr. No.	Notification No. and Date	Earlier price	New price due to notification	% Increase in Cost	FY	Price at the opening of the Year	Price at the closing of the Year	% Increase in Cost
1	04.05.2019	0	4465.03		FY 2019-20	3386.69	3386.69	0.00
2	19.12.2020	4465.03	3386.69	-24.15				
3	01.04.2021	3386.69	3547.02	4.73	FY 2020-21	3386.69	3547.02	4.73
4	27.04.2021	3547.02	3792.46	6.92	FY 2021-22	3547.02	4266.26	20.28
5	01.06.2021	3792.46	3831.12	1.02				
6	01.09.2021	3831.12	3698.63	-3.46				
7	01.10.2021	3698.63	3852.85	4.17				
8	01.11.2021	3852.85	3865.29	0.32				
9	11.01.2022	3865.29	4193.18	8.48				
10	01.03.2022	4193.18	4266.26	1.74				
11	13.05.2022	4266.26	4427.96	3.79	FY 2022-23	4266.26	4676.36	9.61
12	01.06.2022	4427.96	4542.09	2.58				
13	01.02.2023	4542.09	4532.01	-0.22				
14	08.02.2023	4532.01	4676.36	3.19				
15	01.04.2023	4676.36	4800.77	2.66				
16	01.05.2023	4800.77	4850.49	1.04				
17	01.11.2023	4850.49	4972.21	2.51				
	Overall	3386.69	4972.21	46.82				34.62

Impact of Price Notifications of MCL on Dr.NTTPS								
Sr. No.	Notification No. and Date	Earlier Price	New price due to notification	% Increase in cost	FY	Price at the opening of the Year	Price at the closing of the Year	% Increase in Cost
1	09.01.2018	0	1923.90		FY 2019-20	1923.90	1937.55	0.71
2	01.02.2019	1923.90	1937.55	0.71				
3	01.02.2020	1937.55	1949.10	0.60	FY 2020-21	1937.55	1949.10	0.60
4	01.12.2020	1949.10	1981.38	1.66	FY 2021-22	1949.10	1998.29	2.52
5	01.12.2020	1981.38	1998.29	0.85				
6	31.05.2023	1998.29	2059.80	3.08	FY 2022-23	1998.29	2059.80	3.08
	Overall	1923.90	2059.80	7.06				6.91

Impact of Price Notifications of SCCL on RTPP								
Sr. No.	Notification No. and Date	Earlier Price	New price due to notification	% Increase in Cost	FY	Price at the opening of the Year	Price at the closing of the Year	% Increase in Cost
1	04.05.2019	0.00	4465.03		FY 2019-20	3386.69	3386.69	0.00
2	19.12.2020	4465.03	3386.69	-24.15				
3	01.04.2021	3386.69	3547.02	4.73	FY 2020-21	3386.69	3547.02	4.73
4	27.04.2021	3547.02	3792.46	6.92	FY 2021-22	3547.02	4266.26	20.28
5	01.06.2021	3792.46	3831.12	1.02				
6	01.09.2021	3831.12	3698.63	-3.46				
7	01.10.2021	3698.63	3852.85	4.17				
8	01.11.2021	3852.85	3865.29	0.32				
9	11.01.2022	3865.29	4193.18	8.48				
10	01.03.2022	4193.18	4266.26	1.74				
11	13.05.2022	4266.26	4427.96	3.79	FY 2022-23	4266.26	4676.36	9.61
12	01.06.2022	4427.96	4542.09	2.58				
13	01.02.2023	4542.09	4532.01	-0.22				
14	08.02.2023	4532.01	4676.36	3.19				
15	01.04.2023	4676.36	4800.77	2.66				
16	01.05.2023	4800.77	4850.49	1.04				
17	01.11.2023	4850.49	4972.21	2.51				
	Overall	3386.69	4972.21	46.82				34.62

Impact of Price Notifications of MCL on RTPP								
Sr. No.	Notification No. and Date	Earlier Price	New price due to notification	% Increase in Cost	FY	Price at the opening of the Year	Price at the closing of the Year	% Increase in Cost
1	09.01.2018	0	1923.90		FY 2019-20	1923.90	1937.55	0.71
2	01.02.2019	1923.90	1937.55	0.71				
3	01.02.2020	1937.55	1949.10	0.60	FY 2020-21	1937.55	1949.10	0.60
4	01.12.2020	1949.10	1981.38	1.66	FY 2021-22	1949.10	1998.29	2.52
5	01.12.2020	1981.38	1998.29	0.85				
6	31.05.2023	1998.29	2059.80	3.08	FY 2022-23	1998.29	2059.80	3.08
	Overall	1923.90	2059.80	7.06				6.91

As can be seen from the above tables, the price impact of notifications issued by the SCCL is significant from FY 2021-22, and not so high in respect of MCL as compared to SCCL.

11. The variation in variable cost year-wise for each station vis a vis the cost impact of coal price notifications is arrived at as shown in the tables below.

Dr.NTTPS

S. No.	Particulars	Dr.NTTPS									
		FY 19		FY 20		FY 21		FY 22		FY 23	
		SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL
1	Blending Ratio of two sources	67%	33%	49%	51%	78%	23%	56%	44%	45%	55%
2	Avg Coal Cost as per Notification (Rs./MT)	3,921	3,632	3,615	3,674	3,219	3,953	3,619	3,649	4,190	3,720
3	Coal Cost @ Blending Ratio (Rs./MT)	2,632	1,194	1,779	1,866	2,495	889	2,025	1,607	1,894	2,038
4	Avg Coal Cost from two sources (Rs./MT) as per notifications computed by APERC	3,826		3,645		3,384		3,632		3,932	
5	FCA Cost as per monthly bills (Rs./MT)	3,680		3,639		3,586		3,460		3,922	
6	Cost approved in MYT (Rs./MT)	3,450		3,450		3,450		3,450		3,450	
7	Diff (FCA) - (MYT)	230		189		136		10		472	
8	% Increase in Coal Cost	6.67%		5.48%		3.94%		0.29%		13.69%	
9	As per MYT GCV kcal/kg	3420		3420		3420		3420		3420	
10	As per FCA GCV kcal/kg	2946		2985		2969		2969		2878	
11	% Decrease in GCV	13.86%		12.72%		13.19%		13.19%		15.85%	
12	VC as per MYT	2.67		2.90		2.90		2.90		2.90	
13	VC as per FCA	3.48		3.48		3.22		3.27		3.93	
14	% Increase in VC	30%		20%		11%		13%		36%	
15	Rs. Per 1000 KCal as per MYT			1.01		1.01		1.01		1.01	
16	Rs. per 1000 KCal as per FCA			1.22		1.14		1.14		1.36	
17	Diff			0.21		0.13		0.13		0.35	
18	% Increase Rs. per 1000 KCal			20.85%		13.09%		13.05%		35.11%	

Dr.NTTPS-IV

S. No.	Particulars	Dr.NTTPS-IV									
		FY 19		FY 20		FY 21		FY 22		FY 23	
		SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL
1	Blending Ratio of two sources	17%	83%	45%	55%	12%	88%	15%	85%	33%	67%
2	Avg Coal Cost as per Notification (Rs./MT)	4,632	3,962	4,144	4,147	3,560	4,153	5,314	3,993	5,241	4,242
3	Coal Cost @ Blending Ratio (Rs./MT)	784	3,292	1,874	2,272	427	3,656	782	3,405	1,704	2,862
4	Avg Coal Cost from two sources (Rs./MT) as per notifications computed by APERC	4,075		4,146		4,082		4,187		4,567	
5	FCA Cost as per monthly bills (Rs./MT)	4,054		4,107		4,047		4,089		4,509	
6	Cost approved in MYT (Rs./MT)	3,800		3,800		3,800		3,800		3,800	
7	Diff (FCA) - (MYT)	254		307		247		289		709	
8	% Increase in Coal Cost	6.68%		8.07%		6.50%		7.61%		18.67%	
9	As per MYT GCV kcal/kg	3768		3768		3768		3768		3768	
10	As per FCA GCV kcal/kg	3515		3561		3473		3517		3428	
11	% Decrease in GCV	6.71%		5.49%		7.83%		6.66%		9.02%	
12	VC as per MYT	2.41		2.74		2.74		2.74		2.74	
13	VC as per FCA	3.12		3.12		3.06		3.12		3.60	
14	% Increase in VC	29%		14%		12%		14%		31%	
15	Rs. Per 1000 KCal as per MYT			1.01		1.01		1.01		1.01	
16	Rs. per 1000 KCal as per FCA			1.15		1.14		1.15		1.32	
17	Diff			0.14		0.13		0.14		0.31	
18	% Increase Rs. per 1000 KCal			14.35%		12.89%		13.92%		30.44%	

RTPP

S. No.	Particulars	RTPP									
		FY 19		FY 20		FY 21		FY 22		FY 23	
		SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL
1	Blending Ratio of two sources	50%	50%	48%	52%	88%	12%	54%	46%	32%	68%
2	Avg Coal Cost as per Notification (Rs./MT)	5,194	4,377	4,600	4,517	4,158	4,457	5,122	4,530	40	4,781
3	Coal Cost @ Blending Ratio (Rs./MT)	2,603	2,184	2,212	2,345	3,657	537	2,783	2,069	1,742	3,253
4	Avg Coal Cost from two sources (Rs./MT) as per notifications computed by APERC	4,786		4,557		4,194		4,852		4,996	
5	FCA Cost as per monthly bills (Rs./MT)	4,729		4,448		4,830		4,398		4,947	
6	Cost approved in MYT (Rs./MT)	4,100		4,100		4,100		4,100		4,100	
7	Diff (FCA) - (MYT)	629		348		730		298		847	
8	% Increase in Coal Cost	15.34%		8.48%		17.80%		7.27%		20.66%	
9	As per MYT GCV kcal/kg	3420		3420		3420		3420		3420	
10	As per FCA GCV kcal/kg	3301		3137		3307		3198		3242	
11	% Decrease in GCV	3.48%		8.27%		3.30%		6.49%		5.20%	
12	VC as per MYT	3.14		3.36		3.36		3.36		3.36	
13	VC as per FCA	4		4.00		3.79		3.84		4.30	
14	% Increase in VC	27%		19%		13%		14%		28%	
15	Rs. Per 1000 KCal as per MYT			1.20		1.20		1.20		1.20	
16	Rs. per 1000 KCal as per FCA			1.42		1.28		1.37		1.53	
17	Diff			0.22		0.08		0.17		0.33	
18	% Increase Rs. per 1000 KCal			18.26%		6.65%		13.90%		27.29%	

RTPP-IV

S. No.	Particulars	RTPP-IV									
		FY 19		FY 20		FY 21		FY 22		FY 23	
		SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL	SCCL	MCL
1	Blending Ratio of two sources	80%	20%	70%	30%	28%	72%	32%	68%	42%	58%
2	Avg Coal Cost as per Notification (Rs./MT)	5,314	5,509	4,718	4,476	4,438	4,396	6,206	4,570	6,038	4,776
3	Coal Cost @ Blending Ratio (Rs./MT)	4,239	1,115	3,315	1,332	1,223	3,185	1,956	3,130	2,531	2,774
4	Avg Coal Cost from two sources (Rs./MT) as per notifications computed by APERC	5,354		4,646		4,408		5,086		5,305	
5	FCA Cost as per monthly bills (Rs./MT)	5,370		4,608		4,354		4,704		5,306	
6	Cost approved in MYT (Rs./MT)	4,354		4,354		4,354		4,354		4,354	
7	Diff (FCA) - (MYT)	1,016		254		0		350		952	
8	% Increase in Coal Cost	23.33%		5.83%		0.00%		8.04%		21.87%	
9	As per MYT GCV kcal/kg	3450		3450		3450		3450		3450	
10	As per FCA GCV kcal/kg	3452		3172		3242		3242		3338	
11	% Decrease in GCV	-0.06%		8.06%		6.03%		6.03%		3.25%	
12	VC as per MYT	3.14		3.21		3.21		3.21		3.21	
13	VC as per FCA	4.05		3.84		3.37		3.64		4.15	
14	% Increase in VC	29%		20%		5%		13%		29%	
15	Rs. per 1000 KCal as per MYT			1.26		1.26		1.26		1.26	
16	Rs. per 1000 KCal as per FCA			1.45		1.34		1.43		1.59	
17	Diff			0.19		0.08		0.17		0.33	
18	% Increase Rs. per 1000 KCal			15.11%		6.41%		13.28%		25.96%	

As can be seen from the above tables, the percentage variation in an actual variable cost & the landed cost of coal per kcal in comparison to the base values in MYT Order (14th & 18th rows of tables) are almost in correlation with each other. It is also to be noted that the landed cost per ton of coal (4th and 5th rows of tables) claimed in FCA is less than what the Commission computed based on the price notifications and the actual grades and quantities received by APGENCO except for RTPP and Dr NTPPS in

FY2020-21. The difference for Dr.NTTPS is negligible. There is no correlation for RTPP in FY 2020-21 since the plant was under shutdown most of the time and there is no FCA claim for this. Further, as per the information provided by APGENCO, it had a Fuel supply agreement with MCL & SCCL for the supply of coal. The coal prices are as per the notification issued from time to time. The Grade of the coal is decided by joint protocol. The sampling would be collected by the third party appointed jointly from a panel of companies notified by the Ministry of Coal. The coal cost is being paid as per the Joint sampling result. Any variation between Provisional billing and Joint sampling results would be adjusted through Debit/Credit notes and the same would be passed to the DISCOMS while claiming FCA. The team of officers from APERC inspected the Dr NTTPS plant earlier and did not find any deviation in the above practice. On verification of monthly data of FCA, all such credits and debits were noticed. The rebates the petitioner got from the SCCL during FY2020-21 were also passed on in the FCA claims and this is mainly the reason for no FCA claims in FY2020-21 and FY2021-22. The Commission also obtained the demurrages paid to Railways by the petitioner as shown in the table below.

FY	Station	Demurrages (Rs.Cr)
2019-20	Dr.NTTPS	15.38
	Dr.MVR RTPP	11.41
	Total	26.79
2020-21	Dr.NTTPS	1.39
	Dr.MVR RTPP	0.08
	Total	1.47
2021-22	Dr.NTTPS	8.05
	Dr.MVR RTPP	3.03
	Total	11.08
2022-23	Dr.NTTPS	16.30
	Dr.MVR RTPP	5.13
	Total	21.42
Grand Total		60.76

The Demurrages were due to the staggering/ bunching of the rail racks at the stations due to not unloading the wagons in a stipulated time as specified in the freight agreement with the Railways for many reasons. On verification of all months' data, the Commission ensured that the same was not included in the FCA claims.

12. In view of the foregoing, the Commission is inclined to accept the FCA claims of the petitioner as filed. Accordingly, the Respondents are directed to pay the FCA claims as approved in this Order forthwith after the reconciliation of the payments already made for the respective years.
13. The petitioner also prayed the Commission to reset/revise the base price for

FY2023-24 as the actual costs are much higher than the ceiling limit allowed on the base price fixed in the MYT Order and because of this, huge FCA claims are locked with the DISCOMS. The petitioner stated that it is creating cash flow problems and leading to the dues to the coal companies, and accordingly, the realisation of coal from them is affected. After examination of the submissions of the Applicant, having noted the need for the financial soundness of APGENCO to maintain uninterrupted power supply to the State and in the interest of justice, the Commission is inclined to revise the base price from 01.04.2023 for FY 2023-24. Accordingly, based on the data furnished in the FCA claims, the base price is determined for each station as shown in the table below with the same +15 per cent ceiling on the base price as provided in the MYT order.

S. No.	Station	Dr.NTTTPS -I, II, III	Dr.NTTTPS -IV	RTPP-I,II,III	RTPP-IV
1	Station Heat Rate (Kcal/kWh)	2550	2450	2500	2390
2	Auxiliary Consumption (%)	9.00%	7.50%	9.00%	5.75%
3	Landed Cost of Coal (Rs/Ton)	3505	4128	4736	4736
4	GCV of Coal (KCAL/Kg)	2878	3428	3438	3338
5	GCV of oil (Kcal/L)	9718	9718	9770	9770
6	Price of oil (Rs./kL)	48499	48499	58748	58748
7	Specific Oil Consumption (ml/kWh)	2.0	2.0	2.0	0.5
8	Variable Cost (Rs./kWh)	3.49	3.27	3.88	3.62
9	VC With Plus 15% ceiling	4.02	3.76	4.47	4.16

The DISCOMS shall pay the variable costs to the APGENCO as per Regulation 1 of 2008 not exceeding 15 per cent over the base price determined in the present order for FY2023-24. The FCA exceeding 15 per cent shall be paid only after scrutiny and approval of the Commission.

14. In terms of the above, the Application is disposed of.

Sd/-

P.V.R Reddy
Member

Sd/-

Justice C.V. Nagarjuna Reddy
Chairman

Sd/-

Thakur Rama Singh
Member