



## **ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION**

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MONDAY, THE TWENTY EIGHTH DAY OF OCTOBER

TWO THOUSAND AND TWENTY-FOUR

**:Present:**

**Justice C.V. Nagarjuna Reddy, Chairman**

**Sri Thakur Rama Singh, Member**

**Sri P.V.R.Reddy, Member**

In the matter of Determination of Additional Capital Cost and Tariff for 2x800 MW Stage-I SDSTPS for the 5th Control Period 2024-2029 and determination of Capital Cost & Tariff for 1x800 MW Stage-II SDSTPS from COD of 10.03.2023 to 31.03.2024 in 4th Control Period 2019-2024, and for the 5th Control Period 2024-2029 under Section 62 of the Electricity Act, 2003 for the electricity supplied by Andhra Pradesh Power Development Company Limited (APPDCL) from Sri Damodaram Sanjeevaiah Thermal Power Station to the Distribution Licensees in Andhra Pradesh and approval of PPA

In

**O.P.No.21 of 2024**

**Between:**

Andhra Pradesh Power Development Corporation Limited (APPDCL)

**....Petitioner**

AND

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

**....Respondent(s)**

Seeking approval of PPA

in

**O.P.No.6 of 2023**

**Between:**

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

**....Petitioners(s)**

AND

Andhra Pradesh Power Development Corporation Limited (APPDCL)

**....Respondent**

The petition in OP No 21 of 2024 has come up for Public hearing finally on 25.09.2024 in the presence of Sri K. Gopal Choudary, learned counsel for the Petitioner, Sri P. Shivarao, learned standing counsel for the Respondent(s) and Sri M.VenugopalaRao, Sri Siva Kumar (APTMA) and Sri CH BabuRao, learned objectors. OP No 6 of 2023 filed for approval of PPA is connected with OP No. 21 of 2024 filed for tariff determination. Hence, the said file was called for during the public hearing and heard along with OP No.21 of 2024. After carefully considering the material available on record and after hearing the submissions of all the parties, the Commission passes the following:

**COMMON ORDER**

1. According to its submissions, Andhra Pradesh Power Development Company Limited (hereinafter referred to as **“APPDCL”** ), was established as a company registered under the Companies Act, 1956, on 01/03/2006 as a Special Purpose Vehicle. APPDCL has established Sri Damodaram Sanjeevaiah Thermal Power Station (hereinafter referred to as “SDSTPS”) Stage I with 2 x 800 MW and Stage II with 1X800 MW capacity. APGENCO holds 51% equity, and the balance 49% equity is held by the State Government and the four Distribution Companies of the erstwhile Andhra Pradesh in APPDCL.
2. APPDCL stated that it has entered into a PPA with the Respondents-DISCOMs & Others on 22.11.2010 for 90 per cent of Stage I capacity of 2X800 MW. Similarly, a Power Purchase Agreement for 90 per cent Stage II capacity of 1x800MW was signed on 04<sup>th</sup> January 2011 with an estimated Project Cost of Rs. 4327 Cr. However, the undivided State of Andhra Pradesh was bifurcated into two States ie; Telangana and Andhra Pradesh, with effect from 2nd June 2014 as per the Re-Organisation Act, 2014. Therefore, the Commission of undivided Andhra Pradesh State returned the PPAs filed before it for want of jurisdiction vide its letter dated 23rd August 2014. APPDCL and APDISCOMS entered into an amended and restated Power purchase agreement on 24.08.2016 for Stage I. The Unit-I's Commercial Operation date is 05.02.2015, and Unit-II's is 24.08.2015. The Commission approved the Stage I PPA vide its order in OP No: 21/2016 dated 13.07.2018 with certain specific directions. Subsequently, in respect of Stage-I PPA, the respondents, based on the Commission's directions in various connected adjudication orders, submitted amendments to the PPA dated 27.06.2024 signed by both parties to the Commission, which have yet to be approved. SDSTPS Stage-I 2x800 MW units

boilers are designed to operate with blended coal with GCV of 4800 Kcal/Kg (i.e. 70% domestic washed Coal of GCV 4200 Kcal/Kg and 30% imported Coal of GCV 6300 Kcal/Kg.

3. APPDCL stated that by its letter dated 23.05.2022, the Commission had given permission to enter into the Amended and Restated PPA for Stage II with the Respondents. Accordingly, APPDCL and three APDISCOMs entered into Amended and Restated PPA for the sale of 100% power from 1x800 MW Stage-II on 14.10.2022, and APDISCOMs filed OP No. 06 of 2023 before the Commission for approval of PPA. SDSTPS Stage-II 1x800 MW boiler is designed to operate with 100% domestic washed coal with a GCV of 4200 Kcal/Kg. The COD of the unit was declared on 10.03.2023.
4. In the above backdrop, APPDCL filed OP No.21 of 2024 on 16.04.2024 for determination of Additional Capital Cost and Tariff for 2x800 MW Stage-I SDSTPS for the 5th Control Period 2024-2029 and determination of Capital Cost & Tariff for 1x800 MW Stage-II SDSTPS from COD of 10.03.2023 to 31.03.2024 in 4th Control Period 2019-2024, and for the 5th Control Period 2024-2029 under Section 62 of the Electricity Act, 2003. This Original Petition is filed seeking, inter alia, to -

**(A)** determine the capital cost with the additional capital cost, the annual fixed charges of tariff and the initial energy charges of tariff for the 2x800 MW Stage-I for the 5th Control Period 2024-29 together with the terms and conditions thereof;

**(B)** determine the capital cost, the annual fixed charges of tariff and the initial energy charges of tariff for the 1x800 MW Stage-II for the 4th Control Period following the COD together with the terms and conditions thereof;

**(C)** determine the capital cost with the additional capital cost, the annual fixed charges of tariff and the initial energy charges of tariff for the 1x800 MW Stage-II for the 5th Control Period together with the terms and conditions thereof;

**(D)** direct that the Fuel Cost Adjustment be paid against supplementary bills and the terms and conditions thereof, and that the initial energy charges be reset every subsequent financial year based on the actuals of the last quarter of the immediately preceding financial year; and

**(E)** allow loading and transportation charges of unutilised ash in terms of CERC Regulation 2024, read with the directions of MoEF and MoP and permit such charges to be claimed from time to time by way of supplementary bills and the terms and conditions thereof.

5. The Commission had taken the tariff petition on record, numbered it as O.P.No.21 of 2024 on 23.04.2024 and uploaded the filings on its website. Further, the Commission directed APPDCL to upload tariff filings on its official website, make copies available at its corporate office and carry out the publication of the petition in two newspapers -one in Telugu and the other in English, both in the Andhra Pradesh Editions- for information and calling for views/objections/suggestions from individuals, representatives of consumer organisations and the other stakeholders. Further, the Commission directed APPDCL to file the proof of publication by the next hearing date, i.e., 03.07.2024. Accordingly, APPDCL uploaded the petition along with annexures & calculation sheets on its website and filed the proof of publication on 03.07.2024 **(Annexure-I & II)**.

6. The APDISCOMS have filed a counter in OP no 21 of 2024. In their counter, inter alia, each stage wise for the 4th & 5th CPs, the following submissions are made.

**Capital Cost & Tariff determination of Stage II for the 4th CP**

- i. The Commission is requested to undertake a prudent check of the capital cost of SDSTPS Stage-II with reference to the CERC benchmark price as per CERC orders on "Benchmark Capital Cost (Hard cost / Mandatory Package) for Thermal Power Stations with Coal as Fuel" dated 4th June 2012.
- ii. Disputing the various reasons furnished by the APPDCL for the delay of the project and quoting the CERC Tariff Regulations regarding IDC & IEDC, the DISCOMS stated that IDC and Financing Charges claimed by APPDCL are in excess by Rs. 720 Crores (about 30 % ) over and above the IDC claimed in the PPA dated 14.10.2022 and the reasons for such huge increase in IDC within 5 months are not submitted in the petition and hence such excess amount of Rs.720 Cr. needs to be disallowed.
- iii. The Taxes and Duties incurred by APPDCL after the SCoD shall be disallowed.
- iv. Since the Commission has already approved the total land cost in O.P.No.47 of 2017, additional capitalisation towards land costs shall not be allowed.
- v. APPDCL has included the R&R package and development costs at Rs.43.26 Cr and Rs.33.70 Cr, respectively. The amounts claimed by APPDCL may be prudently checked. Any liquidated damages and penalties collected from the suppliers and contractors shall be deducted from the Capex.
- vi. Regulation 1 of 2008 does not provide for determining the tariff for stations above 500MW; hence, the operating parameters specified in the CERC regulations need to be considered for determining the tariff.
- vii. APPDCL claimed two months' receivables as part of the working capital, whereas as per the CERC Tariff Regulation, receivables should be for only 45 days.



- viii. The rate of interest claimed by APPDCL for computation of RoCE may be prudently checked by duly obtaining the necessary documents and details of loan sanctions and moratorium period, if any, availed by the petitioner.

**With regard to the claims made by the APPDCL for the 5th control period for Stage I and Stage II the DISCOMs submitted as under.**

- ix. The additional capitalisation towards the land cost for Stage I does not arise since the total cost arrived at was already admitted by the Commission in O.P.No.47 of 2017.
- x. APPDCL has included the R&R package cost of Rs. 86.53 Cr. The amount claimed by APPDCL may be prudently checked.
- xi. APPDCL has included the additional capitalisation of Rs. 147.11 Cr towards balance works after the COD up to 31.03.2024. The Commission may prudently check the additional capex claimed by APPDCL.
- xii. The Water Charges, Security Expenses, Ash Transportation Expenses and Capital spares for thermal generating stations may be allowed separately after prudent check.
- xiii. Any financial gains resulting from better Station Heat Rate, Auxiliary Consumption, Fuel Consumption, loan restructuring, CDM (Clean Development Mechanism) benefits, and Non-Tariff income may be shared with APDISCOMs in accordance with the provisions of CERC Regulations 2024.
- xiv. The performance of SDSTPS is very poor compared to other similar thermal stations. Consequently, the end users of power are unjustly burdened with extra costs for such power. The said poor performance is due to poor operational management besides general project management. Hence, improvement of the project's performance is required.

7. Sri M.VenuGopalaRao and Sri BabuRao (**Annexure III**) submitted their

views/objections/suggestions. Inter alia, they raised concerns on the abnormal escalation in the cost of stage II of SDSTPS by more than one hundred per cent going by the claims of APPDCL shown in the tariff petition Rs. 8804.31 crore (Rs.11 crore per MW) compared to Rs.4327 crore (Rs.5.4 crore per MW) in the original PPA dated 04.1.2011. They stated that it is impermissible and imposes an avoidable huge burden on consumers of power over a period of 25 years of the PPA if approved by the Commission. That compared to the benchmark capital cost for 800 MW units of Rs.4.63 crore per MW fixed by the Central Electricity Regulatory Commission on 4.6.2012, with December 2011 as the base year, even with the applicable rate of escalation up to the original scheduled COD, the latest capital cost revised by APPDCL of Rs.11 crore per MW is highly imprudent. They also raised concerns about the impact on DISCOMS's power purchases due to non-completion of the project as per schedule and not incorporating clauses in PPAs of not incorporating liquidated damages clause for such delays. They requested the Commission to ascertain the land cost of SDSTPS stage II, limit the taxes up to scheduled COD, make prudent check of R&R claim, and consider various operating parameters like gross station heat rate, gross calorific value, transit and handling loss of coal and claims related thereto, calculate energy charges for domestic and imported coal separately and arrive at RoCE, RoE, water charges, security expenses, transportation charges, and sharing of gains on account of different factors after prudent check and as per applicable Regulations for determination of tariff.

8. The APPDCL, in its rejoinder to the counter of the DISCOMS and objectors, reiterating its submissions in the original petition, stated that the PPA dated 04.01.2011 is redundant and irrelevant. The Amended & Restated PPA dated 14.10.2022 is the subsisting PPA. This PPA admittedly contemplates a capital cost of Rs. 8769.09 crores, which is subject to the Commission's determination of



the capital cost. The capital cost of Rs. 8804.31 crores now claimed by APPDCL is not vastly different, and the capital cost has been duly justified. The comparison of the actual capital with the CERC benchmark capital cost has been explained in the petition, and No additional land has been acquired. The details relating to the cost of land have been stated in the Application. For so much of the work carried out after the SCOD, taxes and duties would be incurred only when such work has been carried out. All such taxes and duties that have been incurred shall be allowed. No liquidated damages were imposed on the contractors for delays caused by force majeure conditions and change of law circumstances as the force majeure and change of law circumstances causing the delay were such that they could not be foreseen and that there is no question of any prior anticipation of the said circumstances. The cost of land, as considered and allowed in O.P. No 47 of 2017, was based on the cost determined at that time based on Government Orders. The government has subsequently issued further orders/assessments, and the land cost is updated accordingly in this application. The proposed operating parameters of the supercritical power plants have been taken as per the CERC 2019 Regulations, as the PPA was signed on 14.10.2022 with an estimated SCOD of March 2023. As per clause 1.38 of the PPA, the due date for payment of monthly energy bills is 60 days. The APERC Regulation 1 of 2008 also provides for receivables of 60 days, which is consistent with the payment terms in the PPA. The receivables have, therefore, to be considered 60 days in the computation of the working capital.

**Commission's Analysis and Decision**

9. The Commission carefully examined the respective stands of the parties and the objectors. The following points arise for consideration in these O.Ps.

**(A) Whether the Additional capital cost claimed by the APPDCL for the SDSTPS Stage I is allowable?**

**(B) What should be the appropriate Tariff for SDSTPS Stage I for the 5th CP?**

**(C) Whether the PPA for SDSTPS Stage II deserves to be approved?**

**(D) If Point No. C is answered in the affirmative, any modifications are necessary in the PPA clauses? And**

**(E) If the PPA is approved, what should be the appropriate tariff for Stage II?**

**(F) Whether loading and ash transportation charges are allowable?**

**(G) How much should be Energy Charges/Variable Costs for Stage I & Stage II ?**

**(H) Other Miscellaneous Issues**

The Commission considered all the views/suggestions/objections of the DISCOMS/objectors while finalising its decision, as detailed in the infra.

**Re - Point. A**

10. The APPDCL claimed additional capital costs of Rs.11.99 Cr. and Rs. 86.53 Cr. towards the land cost and R&R package. After a prudent examination of the records submitted by APPDCL subsequently to the Commission, it is observed that the Government has fixed the price for alienated land after commissioning the SDSTPS Stage-I to enhance the green belt, approach roads and extension of ash pond, etc. This cost is not included in the land cost approved by the Commission in OP NO 47 of 2017 while approving the capital cost. Hence, the Commission is inclined to accept the land cost of 11.99 Cr out of the total cost of 17.93 crores for the SDSTPS project in proportion to the installed capacity for Stage I and Stage II. Regarding the R&R package cost, upon examination of the records submitted to the Commission subsequently, it is observed that the Rehabilitation and Resettlement (R&R) works are in progress as per the Orders of the District Collector, and they are being executed directly by the Revenue Department of Government. The time is not stipulated for the completion of work. The amount incurred by the APPDCL is small, and proof of payment has

also not been submitted. Hence, the Commission is not inclined to consider additional capitalisation at this stage. The APPDCL may file an appropriate petition before the Commission once the R&R works are completed. The Commission will then examine and decide the claim on merits after following the due regulatory process. Accordingly, the finally approved Capex for the SDSTPS Stage-I from 01.04.2024 is shown in the table below.

<b>S. No.</b>	<b>Description</b>	<b>Total ForFY 2024-25</b>
1	Capital Cost as approved in O.P. 47/2017 Cr.	10,761.40
	<b>Additional capitalisation</b>	
1.1	Land Cost Cr.	11.99
	Total Project Capital Cost for 5th Control Period Cr.	10,773.39

Based on the capital cost approved above, the Commission proposes to determine the tariff here under.

#### **Re Point - B**

11. As per clause 10.5 of Regulation 1 of 2008, the Annual Fixed Charges (AFC) of a thermal generating station or a hydropower generating station, as the case may be, shall consist of the following:

- i. Depreciation;
- ii. O&M Expenses;
- iii. Return on Capital Employed (RoCE);
- iv. Income tax as per actuals;

The Commission proposes to deal with each AFC component in the following paragraphs.

#### **(i) Depreciation**

APPDCL has computed the depreciation at a rate of 2.75% on capital cost as per the Commission's orders in OP no. 47 of 2017 and OP no. 53 of

2019, as shown in the table below.

**Filings: Depreciation for Stage I for the 5th CP**

Sl. No.		2024-25	2025-26	2026-27	2027-28	2028-29	Total for 5th CP
1	Capital Cost (Cr)	10859.92					
2	Depreciation (Cr)	298.65	298.65	298.65	298.65	298.65	1493.25

**Commission's Decision**

As the APPDCL computed the Depreciation at the rate approved by the Commission in its earlier Orders, the Commission adopts the same rate for the computation of the Depreciation. The capital cost approved in this Order is considered for the calculation of the depreciation as shown in the table below.

**Approved: Depreciation for Stage I for the 5th CP**

Sl. No		2024-25	2025-26	2026-27	2027-28	2028-29	Total for 5th CP
1	Capital Cost (Cr)	10773.39					
2	Depreciation (Cr)	293.37	293.37	293.37	293.37	293.37	1466.85

Accordingly, the Depreciation filed and approved by the Commission are shown in the table below.

**Filings Vs Approved: Depreciation for Stage I for the 5th CP**

	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed Depreciation	298.65	298.65	298.65	298.65	298.65	1493.25
Approved Depreciation	293.37	293.37	293.37	293.37	293.37	1466.86
Difference	5.28	5.28	5.28	5.28	5.28	26.39

**(ii) O&M Cost :**

APPDCL Claimed O&M Costs as shown in the table below.

**Flings: O&M Costs for 5th CP-Stage I**

S.No.	Description	2024-25	2025-26	2026-27	2027-28	2028-29
1	Capacity in MW	1600	1600	1600	1600	1600
2	O&M charges per MW as per CERC 2024 Regulation (lakh/MW)	23.20	24.42	25.70	27.05	28.47
3	O&M charges with wage revision (Lakh/MW)	27.84	29.30	30.84	32.46	34.16
4	O&M charges per annum in Cr	445.44	468.86	493.44	519.36	546.62
5	Water & Security Cr	9.73	10.12	10.52	10.94	11.38
6	Total O&M Charges in Cr	455.17	478.98	503.96	530.30	558.01

**Commission's Decision**

In the MYT order dated 09.09.2024 in O.P.No.79 of 2023 for the 5th control period, the Commission approved the O&M expenditure for APGENCO's thermal stations in accordance with the norms set for thermal stations by CERC under its Tariff Regulations, 2024. In that order, the Commission did not approve APGENCO's request for an additional 20% over the norms towards pay revision. Instead, the Commission left APGENCO free to seek a True-Up of O&M charges if the actual O&M expenditure exceeded the approved amounts.

In line with the above decision, the Commission decides to compute the O&M charges for the project as per the norms specified in the CERC Tariff Regulations, 2019 for the entire 5th control period as per the norms specified in the CERC Tariff Regulations, 2024. The water and security charges are also not considered. The O&M charges computed by the Commission are shown in the following tables.

**Approved: O&M Costs for Stage I for the 5th CP**

Sl. No		2024-25	2025-26	2026-27	2027-28	2028-29
1	Capacity	1600	1600	1600	1600	1600
2	O&M Charges in Rs Lakhs/MW	23.20	24.42	25.70	27.05	28.47
3	Total O&M Charges in Crores	371.20	390.72	411.20	432.80	455.52

Accordingly, the O&M costs filed and approved by the Commission are shown in the table below.

**Filings Vs Approved: O&M costs Stage 1 for the 5th CP**

	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed O&M charges in Crores	455.17	478.98	503.96	530.30	558.01	2526.42
Approved O&M charges in Crores	371.20	390.72	411.20	432.80	455.52	2061.44
Difference	83.97	88.26	92.76	97.50	102.49	464.98

**There is no specific clause in APERC Regulation 1 of 2008 regarding the true-up of O&M expenses. However, clause 10 of the Regulation provides for adopting CERC Tariff Regulations wherever appropriate. Hence, the Commission decides to adopt the CERC Regulations for the true up of O&M expenses. Therefore, if the actual O&M exceeds the O&M as approved in the present Order due to uncontrollable factors, particularly the wage revision of employees, APPDCL may seek the True-up of O&M expenses in the next MYT filings substantiating its claim. Further, APPDCL shall file an annual performance petition before the Commission. On Review of the annual performance, the Commission may issue suitable directions if required.**

**(iii) Return on Capital Employed (ROCE):**



The computation of Working Capital (WC) and the Weighted Average Cost of Capital (WACC) is a prelude to the determination of RoCE. The following is considered by APPDCL for the computation of working capital.

- Cost of Coal at Q1 FCA (Rs. 4.06 /kWh) rates of FY 2023-24
- Cost of Oil at Q1 FCA (0.03 Paisa/Kwh) rates of FY 2023-24
- O&M Expenses and Sales Receivables as filed in the Petition

Accordingly, the working capital computed by APPDCL following Clause 12.4 of APERC 1 of 2008 Regulation is shown in the table below.

S. No.	Description	FY 2024-25 (Rs. Cr)	FY 2025-26 (Rs. Cr)	FY 2026-27 (Rs. Cr)	FY 2027-28 (Rs. Cr)	FY 2028-29 (Rs. Cr)
1	Cost of Coal stock for 1 month	368.42	368.42	368.42	368.42	368.42
2	Cost of Oil for months	2.98	2.98	2.98	2.98	2.98
3	O&M Expenses for 1 month	37.93	39.92	42.00	44.19	46.50
4	Maintenance Spares-1% of historical cost	153.16	159.29	165.66	172.29	179.18
5	Sales receivables 2 months	1067.50	1065.56	1063.83	1062.34	1061.09
6	Total Working Capital (1+2+3+4+5+6)	1629.99	1636.17	1642.89	1650.22	1658.17

APPDCL computed WACC at 12.11 %, adopting the Debt - Equity Ratio (D/E) at 70:30 in terms of Clause 10.13 of the APERC 1 of 2008 Regulation, Rate of Debt at 10.66% for the loans of Stage-I, stated to be at the weighted average cost of Debt from the PFC and the KfW and Return on Equity at 15.5% as per the CERC Tariff Regulations has been adopted.

Accordingly, the ROCE computed by the APPDCL is shown in the table below:

**Filings: RoCE for Stage 1 for the 5th CP**

S. No.	Description	2024-25	2025-26	2026-27	2027-28	2028-29
1	Original Capital Cost	10761.40	10859.92	10859.92	10859.92	10859.92
2	Additional Capitalization	98.52				
3	Less accumulated Depreciation	2628.18	2926.83	3225.47	3524.12	3822.77
4	Working Capital	1629.99	1636.17	1642.89	1650.22	1658.17
5	Total	9861.73	9569.26	9277.34	8986.02	8695.32
6	WACC	12.11%	12.11%	12.11%	12.11%	12.11%
7	ROCE	1194.45	1159.03	1123.67	1088.39	1053.18

**Commission's Decision**

The DISCOMS have stated that sales receivable shall be considered for 45 days as per CERC tariff Regulations, instead of for two months considered by the APPDCL for computation of working capital. The Commission rejects the DISCOMS's request since the APERC Regulation 1 of 2008 specified the WC computation at two months' receivables. As regards other parameters, the Commission adopts the CERC Regulations where the APERC Regulation has not specified anything in terms of clause 10. The revised parameters are as follows.

- Cost of Coal at Rs. 3.68 /kWh
- Cost of Oil at 0.03 Paisa/KWh  
based on the latest data furnished by APPDCL
- O&M Expenses and Sales Receivables as approved in the Order

Accordingly, the WC computed by the Commission is shown in the table below.

Sl. No		2024-25	2025-26	2026-27	2027-28	2028-29
1	Cost of Coal stock for 1 month	337.05	337.05	337.05	337.05	337.05
2	Cost of Secondary fuel oil for 1 month	2.98	2.98	2.98	2.98	2.98
3	O&M Expenses for 1 month	30.93	32.56	34.27	36.07	37.96
4	Maintenance spares-1% of historical cost	153.16	159.29	165.66	172.29	179.18
5	Sales receivables 2 months	996.12	993.95	991.95	989.36	988.54
6	Total Working Capital	1520.25	1525.83	1531.91	1537.74	1545.70

Similarly, after a prudent check, revising the rate of interest on the loan amount, the WACC computed by the Commission is shown in the table below.

Sl. No	Financial Year	Debt	Equity	Rate of Interest	Return on equity	WACC
1	2024-25	70.00%	30.00%	9.59%	15.50%	11.36%
2	2025-26	70.00%	30.00%	9.59%	15.50%	11.36%
3	2026-27	70.00%	30.00%	9.59%	15.50%	11.36%
4	2027-28	70.00%	30.00%	9.59%	15.50%	11.36%
5	2028-29	70.00%	30.00%	9.59%	15.50%	11.36%

Having determined the WC & WACC as above, the RoCE computed by the Commission is shown in the table below.

**Approved: RoCE for Stage I for the 5th CP**

Sl. No	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	Original Capital Cost	10761.40	10773.39	10773.39	10773.39	10773.39
2	Additional Capitalisation	11.99				
3	Less accumulated Depreciation	2628.18	2921.55	3214.92	3508.30	3801.67
4	Working Capital	1520.25	1525.83	1531.91	1537.74	1545.70
5	Total	9665.46	9377.67	9090.38	8802.83	8517.43
6	Rate of RoCE	11.36%	11.36%	11.36%	11.36%	11.36%
7	RoCE	1098.29	1065.58	1032.94	1000.27	967.84

Accordingly, the ROCE filed by APPDCL and approved by the Commission is shown in the table below.

**Filings Vs Approved: RoCE for Stage I for the 5th CP**

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed RoCE	1194.45	1159.03	1123.67	1088.39	1053.18	5618.72
Approved RoCE	1098.29	1065.58	1032.94	1000.27	967.84	5164.91
Difference	96.16	93.45	90.73	88.12	85.34	453.81

(iv) **Income Tax**

No income tax is claimed in the present filings, and APPDCL may claim Income Tax as per the APERC Regulation 1 of 2008 and its amendments in future.

**Annual Fixed charges (AFC)**

As per the above discussion, the Annual Fixed charges approved by the Commission and filed by APPDCL for SDSTPS Stage-I for the 5th control period are shown in the tables below.

**Filings: AFC for Stage 1 for the 5th CP**

Sl. No	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	RoCE	1194.45	1159.03	1123.67	1088.39	1053.18
2	Depreciation	298.65	298.65	298.65	298.65	298.65
3	Annual O&M expenses	455.17	478.98	503.96	530.30	558.01
	Total (1 + 2 + 3) Fixed Cost	1948.27	1936.66	1926.28	1917.34	1909.83

**Approved: AFC for Stage 1 for the 5th CP**

Sl. No	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	RoCE	1098.29	1065.58	1032.94	1000.27	967.84
2	Depreciation	293.37	293.37	293.37	293.37	293.37
3	Annual O&M expenses	371.20	390.72	411.20	432.80	455.52
	Total (1 + 2 + 3) Fixed Cost	1762.86	1749.68	1737.51	1726.44	1716.73

**Filings Vs Approved: AFC for the Stage I for the 5th CP**

Item-Rs Crs	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed Fixed Cost	1948.27	1936.66	1926.28	1917.34	1909.83	9638.38
Approved Fixed Cost	1762.86	1749.68	1737.51	1726.44	1716.73	8693.22
Difference	185.41	186.98	188.77	190.90	193.10	945.16

**The AFC determined by the Commission in the above table is for 100 per cent project capacity. The DISCOMS shall pay the AFC corresponding to the contracted capacity in the PPA.**

**PPA approval & Amendments to PPA****Re- Points .C&D**

12. None of the objectors have opposed power procurement from the SDSTPS Stage II project. Their main concerns relate to the high tariff caused by higher capital costs due to delays in project completion, ROCE and O&M charges, higher Station Heat Rate and Auxiliary Consumption, post-SCoD taxes and duties, etc. In its order dated 27.06.2024 on Load Forecasts and Resource Plans for the 5th control period (FY 2024-25 to FY 2028-29), the Commission conducted a thorough assessment of the power needs of APDISCOMs and approved the inclusion of SDSTPS Stage II as a generation source, and that order has attained finality. Added to this, the project was conceived in 2011, and the original PPA was signed that year; the PPA became redundant as it was returned by the then Commission of the undivided state of Andhra Pradesh. Therefore, the discussion regarding the above PPA is unnecessary. As per the in-principle approval granted to the DISCOMS by the Commission in its letter dated 23.05.2022, APPDCL and three APDISCOMs entered into Amended and Restated PPA for the sale of 100% power from 1x800 MW Stage-II on 14.10.2022, and APDISCOMs filed OP No. 06 of 2023 before the Commission for approval of PPA. Accordingly, APPDCL is supplying power from Stage II from the COD. Therefore, rejecting the PPA at this

stage would be inappropriate.

In this context, while the Commission recognises the importance of baseload generation from SDSTPS Stage II, especially given the growing integration of infirm solar and wind energy and the anticipated retirement of base thermal stations, at the same time it aims at ensuring a fair tariff. Power from this project is essential to balance the intermittent generation from the solar and wind plants, safeguard the grid, and maintain an uninterrupted supply for consumers. As a State Government-owned unit, significant public funds have already been invested in the SDSTPS Stage II unit, which would be at risk if the PPA is not approved. Moreover, maintaining a balance of public and private generation plants is crucial for fostering competition and preventing monopolistic trends. Encouraging power procurement from units like SDSTPS Stage II supports this objective. Therefore, the Commission is of the view that the PPA merits approval.

Accordingly, the Commission conducted a comprehensive review of the PPA and concluded that the modifications outlined in **Annexure-IV** are necessary.

Points C&D are accordingly answered.

#### **Re Point E**

#### **Capital Cost**

13. The Capital Cost claimed by the APPDCL in its filings as of COD (10.03.2023) is Rs.8804.31 Crores, including the IDC amount for the 37-month delay in attaining COD as certified by its statutory auditors (**Annexure-V**). The details of these capital cost filings are indicated in the following table.

S. No.	Description	Total in Cr
1	Cost of Land & Site Development	
1.1	Land Cost	52.64
	R&R Package Cost	43.26
	Development Cost	33.70



S. No.	Description	Total in Cr
	Total Land Development Cost	129.60
2	Plant & Equipment	
2.1	EPC BTG Package Supply, Spares	2,177.04
2.2	EPC BOP Package Supply, Spares	1486.02
2.3	Civil works	1005.79
2.4	Formation of diversion bund	70.02
2.5	Township	76.40
	Total Plant & Equipment Including Taxes & Duties	4815.27
3	Construction & Pre - Commissioning Expenses	
3.1	BTG Package Erection	287.38
3.2	BOP Package Erection	73.97
3.3	Start up Fuel	30.80
3.4	Operator Training	0.44
	Total Construction & Pre-Commissioning Expenses	392.59
	Total Hard Cost of the Project with tax component of Rs. 730.28 Cr (2+3)	5207.86
4	Overheads	
4.1	Establishment costs	192.10
4.2	Contingency	1.73
4.3	CSR @ 0.4% of Project Cost	1.78
4.4	Consultancy & Engineering	7.79
	Total Overheads	203.40
5	Capital Cost Excluding IDC & FC (1+2+3+4)	5540.86
6	Interest During Construction	3,263.45
7	Total Capital Cost, including IDC as of 10.03.2023	8804.31

Further, APPDCL has claimed an additional capital cost of Rs.147 Crores towards the completion of balance works of BOP starting from COD 10.03.2023 to 31.03.2024 for the 4<sup>th</sup> control period. The details are as follows:

S. No.	Description	Total (Cr) for FY 2024-25
1	Capital Cost of the Project as on 10.03.2023	8804.31
2	Balance Works completed up to 31.03.2024	147.11
3	Total Capital Cost for 5th Control Period	8951.42

The significant increase in capital cost is mainly due to the incurring of IDC for the 37-month delay in attaining the COD beyond the project's Scheduled COD,

which was 15.02.2020.

APPDCL pleaded the following reasons for justification of the delay.

- I. Due to the revision of standards for stack emissions and condenser cooling systems by the MoEF & CC, as notified on 07.12.2015, APPDCL had to undertake re-engineering of the boiler and associated equipment to comply with these new standards. This led to extensive correspondence, discussions, and negotiations with the BTG contractor until 17.11.2016. The supply and service contract with the contractor was amended on 05.12.2016. This resulted in a delay of 12 months in attaining the COD of the project. This delay falls under the "change in law" category due to the revision of standards by the MoEF & CC.
- II. Due to the COVID-19 pandemic, construction work was halted on 21.03.2020 following the government's lockdown declaration. Most migrant workers left the site for their native places, even by walking, during the lockdown, and the remaining workers departed after transportation was restored. As work was to resume, the 2nd wave of COVID-19 hit in April 2021, causing further disruptions as migrant workers again left the work site. The 3rd Omicron wave in January 2022 severely impacted progress, with many workers and employees becoming seriously ill and quarantine protocols delaying the return of skilled labour from other states. Additionally, supply chains were disrupted, and government restrictions on oxygen use for non-medical purposes further delayed supply, erection, and commissioning activities. Overall, the pandemic caused a delay of 24 months in attaining the COD of the project.
- III. Works were disrupted in November 2021 and December 2021 due to incessant rains and severe cyclones near the plant.
- IV. During the first synchronisation and partial load operation periods, high

vibrations were noticed in the main turbine 5th shaft bearing, even after four trials of in-situ dynamic balancing. On investigation, the catenary reading showed a wide deviation in the bearings. It took 2 months to decouple, re-align, and re-couple the turbine rotors.

V. The above reasons led to a cumulative 37-month delay in attaining the project's COD, which was beyond APPDCL's control.

APPDCL contends that the capital cost of Rs.7884 crores claimed by it as of the COD is comparable to the capital cost of Rs.7874 Crores (computed based on the 2011 CERC benchmark hard cost escalated by 5% up to SCOD + the IDC for 37 months excluding Taxes and Duties).

Most of the objections raised by the objectors relate to the abnormal delay in achieving the project's COD and the resultant increase in the project's Capital Cost and payment of Taxes and Duties beyond COD.

**Commission's decision**

The Commission has given its earnest consideration to the reasons for the delays pleaded by the APPDCL and the objections raised thereto by the objectors. The APPDCL contended that the 37-month delay in achieving COD and the resultant increase in capital cost was due to factors beyond their control, including the implementation of revised standards notified by MoEF & CC (12 months), the COVID-19 pandemic (24 months), two months incessant rains in Nov 21 and Dec 21 and trouble in Turbine Commissioning. In light of the Supreme Court's order dated 10.01.2022 in miscellaneous application No. 21 of 2022 in miscellaneous application No. 665 of 2021 in suo motu writ petition (c) No. 3 of 2020, which excluded the period from 15.03.2020 to 28.02.2022 and an additional 90 days from 01.03.2022 for limitation purposes due to the pandemic, it is reasonable to extend this rationale to the execution of works. The Supreme Court's direction makes it evident that the highest court of the land has taken judicial notice of

the severe impact created by COVID-19 in different phases and the serious disruption of human activities for almost two years. Therefore, the Commission finds it reasonable to exclude the period that the Supreme Court excluded for computing limitation. Regarding the other delays, even if the extensions sought by APPDCL for other reasons are granted, the extended periods would overlap with the COVID-19 period, making those additional extensions redundant.

The records show that the SCOD of the project was just before the start of COVID-19, and the plant was synchronised with the grid on 10.11.2021. Based on the CEA report on “Expected synchronisation/commissioning (Full load)/COD details of Thermal Power Projects,” it is reasonable to assume that the typical period from synchronisation to COD completion is 3 months. By adding this period to the time extension granted by the Supreme Court, the revised timeline for COD completion would be the end of August 2022. Accordingly, the Commission is inclined to permit the IDC up to the end of August 2022. Having extended the COD up to August 2022 as detailed above, given the statutory nature of taxes and duties, the request of the objectors to limit the taxes and duties up to the actual COD is unreasonable and is therefore rejected.

Further, the Commission has reviewed the project's hard cost presented by APPDCL during the public hearings. The CERC benchmark hard cost (excluding taxes) for a 1 x 800 MW brownfield project commissioned in December 2011 was Rs. 4.63 crores/MW. Considering 5% year-on-year inflation, the benchmark hard cost (excluding taxes) for a unit commissioned in February 2020 would be Rs. 6.9 crores/MW. The equivalent benchmark hard cost (excluding taxes) would be Rs. 5,520 crores. On the commercial operation date, APPDCL incurred Rs 4477.58 Cr of Hard cost for Stage II, which would be 5.59 crores per MW. This figure is lower than the CERC Benchmark Hard Cost. However, the objectors stated that the land cost is already included in the Stage I land cost approved in

OP no 47 of 2017. The Commission has verified the same and is convinced that the land cost claimed in this Petition is not approved earlier in Stage I capital cost. Further, the Commission excluded the land development cost of Rs 33.74 crores & R&R costs of Rs.43.26 crores from the capital cost. APPDCL has not submitted any proof of land development costs. Regarding R&R costs, the reasons recorded while approving the additional capital cost for Stage I supra are adopted and accordingly, R&R costs are proposed to be excluded. For calculating the IDC for the SDSTPS Stage I and RTPP-IV units, the Commission distributed the utilisation of funds equally from the zero date to the COD each year. The same principle has been adopted for this project to calculate IDC. The IDC has been recalculated up to the end of August 2022. The interest rate considered for IDC computation is 11.90%, the effective interest rate paid by APPDCL to the lenders.

Accordingly, by adding IDC and excluding the land development and R&R costs from the filings' capital cost figures, the Commission approves the capital cost for SDSTPS Stage II.

The details of the revised calculations are presented in the following table.

The Capital Cost (excluding IDC) is Rs. 5463.90 crores. The interest rate considered is 11.90%. IDC is calculated on 70% of the Capital Cost(excluding IDC), which represents the loan amount.									
	1year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	
	3.5 mon							5 months	Total
Loan	166.29	570.15	570.15	570.15	570.15	570.15	570.15	237.56	3824.73
IDC	5.77	54.40	128.72	211.89	304.95	409.08	525.61	265.09	1905.51
Capital Cost(including IDC)(5463.90+1905.51=)(Rs.Crores)									7369.41

The additional capitalisation of Rs.147 Crores claimed by APPDCL is based on deferred works of already awarded firm contracts executed after COD and up to

31.03.2024. Therefore, the Commission is inclined to approve the same.

**The Tariff for SDSTPS Stage II ( from COD date in 4th CP and 5th CP**

14. As per clause 10.5 of Regulation 1 of 2008, the Annual Fixed Charges (AFC) of a thermal generating station or a hydropower generating station, as the case may be, shall consist of the following:

- i. Depreciation;
- ii. O&M Expenses;
- iii. Return on Capital Employed (RoCE);
- iv. Income tax as per actuals;

The Commission proposes to deal with each AFC component in the following paragraphs.

**(i) Depreciation**

APPDCL claimed depreciation at 2.75 percent, as shown in the tables below.

**Filings: Depreciation for 4th CP-Stage II**

S. No.	Description	Amount(Rs. In Cr.)	
		2022-23 (22 Days)	2023-24
1	Capital Cost	8804.317	8804.317
2	Depreciation	14.59	242.12

**Filings: Depreciation for 5th CP-Stage II**

Sl.No.		2024-25	2025-26	2026-27	2027-28	2028-29
1	Capital Cost	8951.42	8951.42	8951.42	8951.42	8951.42
2	Depreciation	246.16	246.16	246.16	246.16	246.16

**Commission's decision**

The depreciation rate of 2.75% claimed by APPDCL (in which APGENCO holds a majority stake) in O.P.No.21 of 2024 for the determination of tariff for SDSTPS Stage-II (covering the remainder of 4th control period and the entire 5th control



period), differs from that of the similarly placed Dr NTTPS-V unit, even though both units have the same capacity. O.P.No.22 of 2024 is currently pending before the Commission. Against 2.75 percent claimed by APPDCL and 5.28 per cent claimed by Dr.NTTPS Stage V, the Commission is of the view that applying different depreciation rates to these two units, which are similarly placed and are effectively controlled by APGENCO, is not appropriate. The APERC Regulation 1 of 2008 stipulates the adoption of depreciation rates notified by the MoP, Government of India. These rates are higher than the depreciation rates adopted by the APPDCL and APGENCO. If these rates are adopted, it would lead to substantial front loading of tariffs. Therefore, the Commission decides to implement a uniform depreciation rate of 3.6% in the straight-line method for both units for the entire duration of their PPAs. Accordingly, the Commission has computed the depreciation amounts for the remainder of the 4th control period and the entire 5th control period. As per Clause 12.2 of APERC Regulation 1 of 2008, land is not depreciable. Hence, the same has been excluded in the computation of depreciation. The depreciation calculated by the Commission is shown in the following tables.

**Approved: Depreciation for 4th CP-Stage II**

Sl.No.	Particulars	2022-23	2023-24
1	Capital Cost (Excluding land cost) Crores	7316.77	7316.77
2	Depreciation (22 days in FY23) Crores	15.88	263.40

**Approved: Depreciation for 5th CP-Stage II**

Sl.No.		2024-25	2025-26	2026-27	2027-28	2028-29
1	Capital Cost (Excluding land cost) Crores	7463.88	7463.88	7463.88	7463.88	7463.88
2	Depreciation-Rs Crores	268.70	268.70	268.70	268.70	268.70

The Depreciation filed by APPDCL and approved by the Commission are shown in the tables below.

**Filings Vs Approved-Depreciation for 5th CP-Stage II**

	2022-23	2023-24	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed Depreciation	14.59	242.12	256.71	246.16	246.16	246.16	246.16	246.16	1230.80
Approved Depreciation	15.88	263.40	279.28	268.70	268.70	268.70	268.70	268.70	1343.5
Difference	-1.29	-21.28	-22.57	-22.54	-22.54	-22.54	-22.54	-22.54	-112.70

**(ii) Operation & Maintenance(O&M) Charges**

APPDCL has claimed O&M charges for the balance of the 4th control period and the entire 5th control period in line with the norms specified in the CERC (Terms and Conditions for Tariff) Regulations, 2019 and 2024, respectively. Further, APPDCL has requested an extra 20% over the specified norms to account for the 2022 wage revision, increased HRA, CCA, and gratuity. Additionally, APPDCL claimed water and security charges proportional to the 800 MW installed capacity of this project, based on the Government Orders (G.Os) for water charges and the Memorandum of Understanding (MoU) with the Government of Andhra Pradesh (GoAP) for security charges.

**Filings: O&M costs for 4th CP-Stage II**

S. No.	Description	2022-23	2023-24
1	O&M charges per MW	<b>20.22</b>	20.93
2	O&M Charges with wage revision	<b>24.26</b>	<b>25.12</b>
3	O&M charges per annum in cr	194.11	200.93
4	water & security	4.50	4.68
5	O&M charges, including water & security per annum in cr	198.61	205.61

**Filings: O&M costs for 5th CP-Stage II**

S. No.	Description	2024-25	2025-26	2026-27	2027-28	2028-29
1	O&M charges per MW	23.20	24.42	25.70	27.05	28.47
2	O&M Charges with wage revision	<b>27.84</b>	<b>29.30</b>	<b>30.84</b>	<b>32.46</b>	<b>34.16</b>
3	O&M charges per annum in cr	222.72	234.43	246.72	259.68	273.31
4	water & security	4.87	5.06	5.26	5.47	5.69
5	O&M charges including water & security per annum in cr	227.59	239.49	251.98	265.15	279.01

**Commission's decision**

In the MYT order dated 09.09.2024 in O.P.No.79 of 2023 for the 5th control period, the Commission approved the O&M expenditure for APGENCO's thermal stations following the norms set for thermal stations by CERC under its Tariff Regulations, 2024. At the same time, the Commission did not approve APGENCO's request for an additional 20% over the norms for pay revision. Instead, the Commission allowed APGENCO to seek a True-Up of O&M charges if the actual expenditures exceeded the approved amounts.

In line with the above decision, the Commission decides to compute the O&M charges for the project for the remainder of the 4th control period as per the norms specified in the CERC Tariff Regulations, 2019, and for the entire 5th control period as per the norms specified in the CERC Tariff Regulations, 2024. The Commission is not inclined to allow separate water and security charges claimed by APPDCL as they are part of O&M charges.

The O&M charges computed by the Commission are shown in the following tables.

**Approved: O&M costs for 4th CP-Stage II**

Sl.No.	Particulars	2022-23	2023-24
1	Capacity	800	800
2	O&M Charges in Rs Lakhs/MW	20.22	20.93
3	Total O&M Charges in Crores	161.76	167.44
	O&M Charges for 22 days in 2022-23	9.75	

**Approved: O&M costs for 5th CP-Stage II**

Sl.No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	Capacity	8000	800	800	800	800
2	O&M Charges in Rs Lakhs/MW	23.20	24.42	25.70	27.05	28.47
3	Total O&M Charges in Crores	185.60	195.36	205.60	216.40	227.76

**Filed V/s Approved O&M Costs-Stage II**

	2022-23	2023-24	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed O&M charges in Crores	11.97	205.61	217.58	227.59	239.49	251.98	265.15	279.01	1263.23
Approved O&M charges in Crores	9.75	167.44	177.19	185.60	195.36	205.60	216.40	227.76	1030.72
Difference	2.22	38.17	40.39	60.56	50.80	40.56	29.76	18.40	232.51

Regarding the true-up of O&M costs, the Commission's directions given to Stage I shall also apply to Stage II.

**(iii) Return on Capital Employed (ROCE):**

The computation of Working Capital (WC) and the Weighted Average Cost of Capital (WACC) is a prelude to the determination of RoCE.

APPDCL considers the following for the computation of working capital.

- Cost of Coal at Rs. 2.80 /kWh rates
- Cost of Oil at 0.04 Paisa/Kwh rates
- O&M Expenses and Sales Receivables as filed in the Petition

Accordingly, the working capital computed by APPDCL following Clause 12.4 of APERC 1 of 2008 Regulation is shown in the table below.

**Filings: Working Capital for the 4th control period (Crores)-Stage II**

S. No.	Description	2022-23	2023-24
1	Advance payment towards the cost of coal for 30 days	137.02	137.02
2	Cost of Oil for 1 month	1.79	1.79
3	O&M Expenses for 1 month	16.55	17.13
4	Maintenance spares - 1% of Historical cost	88.04	91.56
5	Receivables for 2 months	549.06	550.03
6	Working Capital-(22 days to be considered)	792.45	797.53

**Filings: Working Capital for the 5th control period (Rs. Crores)-Stage II**

S. No.	Description	2024-25	2025-26	2026-27	2027-28	2028-29
1	Advance payment towards the cost of coal for 30 days	137.02	137.02	137.02	137.02	137.02
2	Cost of Oil for 1 month	1.79	1.79	1.79	1.79	1.79
3	O&M Expenses for 1 month	18.97	19.96	21.00	22.10	23.25
4	Maintenance spares - 1% of Historical cost	95.23	99.04	103.00	107.12	111.40
5	Receivables for 2 months	552.57	549.51	546.55	543.71	541.00
6	Working Capital	805.57	807.31	809.35	811.73	814.45

**Commission's decision**

The Commission already answered DISCOMS's objections (supra). The parameters considered in the filings are reasonable in the Commission's view. Accordingly, the WC computed by the Commission is shown in the table below.

**Approved: Working Capital for the 4th control period (Rs. Crores)-Stage II**

Sl.No.		2022-23	2023-24
1	Cost of Coal stock for 1 month	137.02	137.02
2	Cost of Secondary fuel oil for 1 months	1.79	1.79
3	O&M Expenses for 1 month	13.48	13.95
4	Maintenance spares-1% of historical cost	73.69	76.64
5	Sales receivables 2 months	505.95	506.67
	Total Working Capital	731.93	736.07

**Approved: Working Capital for the 5th control period (Rs. Crores)-Stage II**

Sl.No		2024-25	2025-26	2026-27	2027-28	2028-29
1	Cost of Coal stock for 1 month	137.02	137.02	137.02	137.02	137.02
2	Cost of Secondary fuel oil for 1 months	1.79	1.79	1.79	1.79	1.79
3	O&M Expenses for 1 month	15.47	16.28	17.13	18.03	18.98
4	Maintenance spares-1% of historical cost	79.71	82.90	86.21	89.66	93.25
5	Sales receivables for 2 months	508.44	504.85	501.34	497.93	494.63
	Total Working Capital	742.42	742.83	743.49	744.43	745.66

**Weighted Average Cost of Capital (WACC)**

APPDCL computed the WACC as shown in the table below following Clause 12.1.b. of APERC Regulation 1 of 2008

**Filings: WACC**

Debt	Equity	Rate of Interest	Return on equity	WACC
70%	30%	11.05%	15.50%	12.39%
70%	30%	11.05%	15.50%	12.39%
70%	30%	11.05%	15.50%	12.39%
70%	30%	11.05%	15.50%	12.39%
70%	30%	11.05%	15.50%	12.39%



**Commission's decision**

The Commission revised the rate of interest on loans based on the records; accordingly, the WACC computed by the Commission is shown in the tables below.

Debt	Equity	Rate of Interest	Return on equity	WACC
70%	30%	10.03%	15.50%	11.67%
70%	30%	10.03%	15.50%	11.67%
70%	30%	10.03%	15.50%	11.67%
70%	30%	10.03%	15.50%	11.67%
70%	30%	10.03%	15.50%	11.67%

**Return on Capital Employed (RoCE)**

Having determined the WC & WACC as above, the Commission computed the RoCE as per Regulation 1 of 2008. The RoCE filed by the APPDCL and approved by the Commission are shown in the tables below.

**Filings: RoCE for the 4th control period - Stage II**

S.No.	Description	2022-23	2023-24
1	Original Capital Cost	8804.31	8804.31
2	Balance works completed by 31.03.2024	—	—
3	Less accumulated Depreciation	0.00	14.59
4	Working Capital	792.45	797.53
5	Total	9596.76	9587.24
6	WACC	12.39%	12.39%
7	ROCE	1188.56	1187.38
8	Claimed-during FY 2022-23 for 22 days	71.64	1187.38

**Filings: RoCE for the 5th control period -Stage II**

S.No.	Description	2024-25	2025-26	2026-27	2027-28	2028-29
1	Original Capital Cost	8804.31	8951.42	8951.42	8951.42	8951.42
2	Balance works completed by 31.03.2024	147.11	—	—	—	—
3	Less accumulated Depreciation	256.71	502.88	749.04	995.20	1241.37
4	Working Capital	805.57	807.31	809.35	811.73	814.45
5	Total	9500.27	9255.85	9011.73	8767.95	8524.51
6	WACC	12.39%	12.39%	12.39%	12.39%	12.39%
7	ROCE	1176.61	1146.34	1116.10	1085.91	1055.76

**Approved: RoCE for the 4th control period - Stage II**

Sl.No		2022-23	2023-24
1	Original Capital Cost	7369.41	7369.41
2	Additional Capitalisation		147.11
3	Less accumulated Depreciation	0.00	15.88
4	Working Capital	731.93	736.07
5	Total	8101.34	8089.60
6	Rate of RoCE	11.67%	11.67%
7	RoCE	945.51	944.14

**Approved: RoCE for the 5th control period -Stage II**

Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	Original Capital Cost	7516.52	7516.52	7516.52	7516.52	7516.52
2	Less accumulated Depreciation	279.28	547.98	816.68	1085.38	1354.08
3	Working Capital	742.42	742.83	743.49	744.43	745.66
4	Total	7979.66	7711.37	7443.33	7175.57	6908.10
5	Rate of RoCE	11.67%	11.67%	11.67%	11.67%	11.67%
6	RoCE	931.31	899.99	868.71	837.46	806.24

**Filings Vs Approved: ROCE -Stage II**

	2022-23	2023-24	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed RoCE	71.64	1187.38	1259.02	1176.61	1146.34	1116.10	1085.91	1055.76	5580.72
Approved RoCE	56.99	944.14	1001.13	931.31	899.99	868.71	837.46	806.24	4343.72
Difference	14.65	243.24	257.89	245.30	246.35	247.39	248.45	249.52	1237.00

**(iv) Income Tax and Incentives**

Income tax and Incentives shall be claimed and paid as per the relevant provisions of APERC Regulation 1 of 2008.

**Annual Fixed Charges**

The following tables show the Annual fixed charges computed by the Commission by summing up the ROCE, O&M charges, and depreciation as approved *supra*, as well as the Annual fixed charges claimed by APPDCL.

**Filings: Annual Fixed Charges\_for the 4th control period -Stage II**

S. No.	Item	2022-23	2023-24
1	Depreciation	14.59	242.12
2	O&M Expenses	11.97	205.61
3	ROCE	71.64	1187.38
4	Fixed cost	98.20	1635.10

**Filings: Annual Fixed Charges\_for the 5th control period -Stage II**

S. No.	YEAR	2024-25	2025-26	2026-27	2027-28	2028-29
1	Depreciation	246.16	246.16	246.16	246.16	246.16
2	O&M Expenses	227.59	239.49	251.98	265.15	279.01
3	ROCE	1176.61	1146.34	1116.10	1085.91	1055.76
4	Fixed cost Including Rs 2.2 Crs Petition Fees	1652.56	1631.99	1614.25	1597.23	1580.93

**Approved: Annual Fixed Charges\_for the 4th control period -Stage II**

Sl.No.	Particular	2022-23	2023-24
1	RoCE	56.99	944.14
2	Depreciation	15.88	263.40
3	Annual O&M expenses	9.75	167.44
4	Total (1 + 2 + 3) Fixed Cost	82.62	1374.98

**Approved: Annual Fixed Charges for the 5th control period - Stage II**

Sl.No.		2024-25	2025-26	2026-27	2027-28	2028-29
1	RoCE	931.31	899.99	868.71	837.46	806.24
2	Depreciation	268.70	268.70	268.70	268.70	268.70
3	Annual O&M expenses	185.60	195.36	205.60	216.40	227.76
4	Total (1 + 2 + 3) Fixed Cost	1385.61	1364.05	1343.01	1322.56	1302.70

**Filings Vs Approved: Approved: Annual Fixed Charges -Stage II**

	2022-23	2023-24	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Filed Fixed Cost	98.20	1635.10	1733.30	1652.56	1631.99	1614.25	1597.23	1580.93	8076.96
Approved Fixed Cost	82.62	1374.98	1457.59	1385.61	1364.05	1343.01	1322.56	1302.70	6717.93
Difference	15.58	260.12	275.71	266.95	267.94	271.24	274.67	278.23	1359.03

**Re:Point F****15. Ash Transportation Costs**

APPDCL has requested the Commission to permit the incurrence of loading and transportation costs for unutilised ash, as per the guidelines in Clause B of the MoEF Notification 2021. These guidelines mandate that thermal power plants bear the transportation costs for delivering ash to projects within 300 km. APPDCL also sought approval to claim these costs as a pass-through in the FCA bills when incurred.

**Commission's decision**

The Commission is not inclined to approve these charges at this stage. However, APPDCL is granted the liberty to file an appropriate petition before the Commission with the actual costs incurred. The Commission will then decide its admissibility and the quantum after public consultation process.

**Re Point G: Energy Charges (EC)/Variable Charges(VC)**

16. **Clause** 13.1.a. of APERC Regulation 1 of 2008 provides the formula for calculating Variable Charges (Rs./kWh). The formula includes components such

as the landed cost of fuel, GCV of fuel, and normative values for specific oil consumption, auxiliary consumption, and Station Heat Rate. APPDCL has claimed the Variable Charge (energy charge) at Rs.4.06/kWh and Rs.3.01/kWh for Stage I and II, respectively, as shown in the tables below.

**Filings: Normative Parameters for Stage-I**

S.No.	Description	Units	Values
1	Station Heat Rate	kCal/Kg	2302
2	Auxiliary Power Consumption	%	6.5
3	Specific Oil Consumption	ml/kWh	0.5
4	Windage & Transit Losses	%	1
5	Availability	%	85

**Filings: Fuel Values for Stage-I**

S.No.	Description	Units	Values
1	Station Heat Rate	Kcal/Kg	2302
2	Specific Oil Consumption	ml/Kwh	0.5
3	Auxiliary Power Consumption	%	6.5
4	GCV of Coal	Kcal/Kg	4099
5	Landed Cost of Coal	Rs/MT	6715
6	GCV of Oil	Kcal/KL	10324
7	Landed Cost of Oil	Rs/KL	60736
8	Specific Coal Consumption	Kg/Kwh	0.56
9	Per Unit Coal Cost	Rs./Kwh	3.76
10	Per Unit Oil Cost	Rs./Kwh	0.03
11	VC of Unit generated	Rs./Kwh	3.79
12	VC of Unit at Ex-Bus	Rs./Kwh	4.06

**Filings: Normative Parameters for Stage II**

S.No.	Description	Units	Values
1	Station Heat Rate	kCal/Kg	2164
2	Auxiliary Power Consumption	%	5.75
3	Specific Oil Consumption	ml/kWh	0.5
4	Windage & Transit Losses	%	1
5	Availability	%	85

**Filings: Fuel Values for Stage II**

S.No.	Description	Units	Values
1	Station Heat Rate	Kcal/Kg	2164
2	Specific Oil Consumption	ml/Kwh	0.5
3	Auxiliary Power Consumption	%	5.75
4	GCV of Coal	Kcal/Kg	4079
5	Landed Cost of Coal	Rs/MT	5308
6	GCV of Oil	Kcal/KL	10344
7	Landed Cost of Oil	Rs/KL	57781
8	Specific Coal Consumption	Kg/Kwh	0.53
9	Per Unit Coal Cost	Rs./Kwh	2.81
10	Per Unit Oil Cost	Rs./Kwh	0.03
11	VC of Unit generated	Rs./Kwh	2.84
12	VC of Unit at Ex-Bus	Rs./Kwh	3.01

APPDCL stated that the actual landed cost of coal and oil for the first quarter of FY 2023-24 for 2X 800MW stage 1 and Stage II is taken into account while calculating the variable charges, as shown in the tables above.

**Commission's decision**

As per Clause 13.1.b of the APERC Regulation 1 of 2008, the initial variable charges (Rs./kWh) for the project shall be determined based on the actual gross calorific value of coal, lignite, gas, or liquid fuel from the preceding three months. APPDCL has submitted details of the Variable Charges from April 23 to March 2024, including the norms and fuel values used in these calculations (as shown in **(Annexure-VI)**). APERC Regulation 1 of 2008 does not specify normative values for secondary oil consumption, auxiliary consumption, and Station Heat Rate for 800 MW units. The auxiliary consumption norm is not as per CERC Tariff Regulations 2024. Considering the plants designed in FY 2010 for Stage I and in 2015 for Stage II, the Commission proposes norms fixed in CERC Tariff Regulations 2019 regarding auxiliary consumption.

Regarding transit loss, the CERC Regulations 2024 specified 1 per cent for multisource coal supplies. However, the Commission proposes 0.8 per cent windage losses, which has significant cost implications. However, if APPDCL



incurs more than 0.8 per cent, the Commission will examine it during the annual performance review and issue directions accordingly. Accordingly, the Commission approves the operating parameters as shown in the tables below for the monthly computation of energy charges or variable charges.

**Approved: Normative Parameters for Stage-I**

S. No.	Description	Units	Values
1	Station Heat Rate	kCal/Kg	2302
2	Auxiliary Power Consumption	%	5.75
3	Specific Oil Consumption	ml/kWh	0.5
4	Windage & Transit Losses	%	0.8
5	Availability	%	85

**Approved: Normative Parameters for Stage II**

S. No.	Description	Units	Values
1	Station Heat Rate	kCal/Kg	2164
2	Auxiliary Power Consumption	%	5.75
3	Specific Oil Consumption	ml/kWh	0.5
4	Windage & Transit Losses	%	0.8
5	Availability	%	85

The DISCOMS shall admit the monthly energy charges based on the above norms. Further, Section 86.1 (b) of the Electricity Act, 2003 provides for SERCs to regulate the electricity purchase and procurement process of distribution licensees, including the price at which electricity shall be procured from the generating companies or licensees or other sources through agreements for the purchase of power for distribution and supply within the State. Hence, by allowing the DISCOMs to pay APPDCL as per Regulation 1 of 2008 based on the actuals, the Commission fixes the ceiling price per unit as shown in the table below:

Stage	Ceiling price
SDSTPS Stage 1	Rs.3.80 per unit
SDSTPS Stage II	Rs 3.20 per unit

APPDCL, when submitting bills, must provide the necessary information to DISCOMs in the format attached to this Order as **Annexure-VII**. Failure to submit the information in the specified format will be considered as an incomplete bill submission. Consequently, APDISCOMs may withhold payment until APPDCL provides the required information.

In the event of an increase in the landed cost of coal due to notifications from coal companies or changes in railway freight charges, the ceiling price for the Variable Charge shall be adjusted proportionately to the percentage increase as specified in the notifications. Following APERC Regulation 1 of 2008, fuel cost adjustment bills shall be paid up to the ceiling price for the Variable Charge as approved in this order. Any variation beyond the approved ceiling price Variable Charge will be subject to scrutiny and approval by the Commission for payment. Until such approval is granted, payments shall be limited to the approval. The ceiling price will be revised based on APPDCL's annual performance review. **Accordingly, APPDCL is required to submit an annual performance petition to the Commission each year, once the audited figures are available.**

**The following CERC directions regarding sampling and testing GCV at the receiving end of generating stations must be strictly followed.**

*“As per the directions of the Hon'ble High Court of Delhi, the CERC vide its order dated 25.1.2016 in Petition No. 283/GT/2014 has decided as under:*

*(a) There is no basis in the Indian Standards and other documents relied upon by NTPC etc. to support their claim that GCV of coal on as received basis should be measured by taking samples after the crusher set up inside the generating station, in terms of Regulation 30(6) of the 2014 Tariff regulations.*

*(b) The samples for the purpose of measurement of coal on as received basis should be collected from the loaded wagons at the generating stations either*

*manually or through the Hydraulic Auger in accordance with provisions of IS 436(Part1/Section 1)-1964 before the coal is unloaded. While collecting the samples, the safety of personnel and equipment as discussed in this order should be ensured. After collection of samples, the sample preparation and testing shall be carried out in the laboratory in accordance with the procedure prescribed in IS 436(Part 1/Section 1)-1964, which has been elaborated in the CPRI Report to PSERC.”*

**The GCV shall be calculated at the receiving generating station for the computation of energy charges/variable cost, following the above sampling procedure duly considering the minimum margin recommended in the MoP notification dated 18.10.2017 to account for the loss of GCV from the wagon top at the unloading point to the point of firing in the boiler.**

17. **APPDCL shall submit its action plan to comply with the CEA (Flexible operation of coal-based thermal generating units) Regulations,2023, within two months of receiving this Order.**
18. There was provision in the Capital cost for installing FGDs in PPA. However, without the installation of FGDs, the actual capital cost increased the figures in PPA. Regarding the installation of FGDs, NITI Ayog mentioned the following in its office memorandum dated 24.09.24.

*“ Following was recommended by NEERI to take the decision on FGD installation in thermal power plants:*

- i. It is recommended that placement of new orders for installation of FGD may be stopped.*
- ii. All TPPs where FGD is already installed, should be treated as experimental sites for data collection. Data should be gathered for*

*conducting cost benefit analysis and impact on power tariff.*

- iii. The height of stack for Indian coal based TPP should not be reduced to 150 metres to prevent any fly ash emissions in the surrounding area of TPPs, in case of ESP failure.*
- iv. The first priority should be given to control PM emission by optimizing ESP performance, implementing fabric filters, and adopting advanced combustion technologies as a potential long-term solution.”*

**The APPDCL shall keep the above recommendations in view while initiating any action on the installation of FGDs.**

**Re Point H:**

**Tariff Petition Fee, Publication & Related Expenses**

19. **APPDCL** stated that, as per Clause No. 94 of CERC 2024 Regulation, the application filing fee and the expenses incurred on publication of notices of the application for approval of tariff may, at the discretion of the Commission, be allowed to be recovered by the generating company. Accordingly, APPDCL has claimed Rs.2.20 crores towards the application fee and publication expenses.

**Commission's decision**

The Commission is not inclined to approve the application fee and related expenses of Rs. 2.20 crores claimed by APPDCL as there is no provision in APERC Regulation 1 of 2008 for pass-through of the same. APPDCL may meet this expenditure from its profits.

**AMENDMENT-1 TO AMENDED AND RESTATED POWER PURCHASE AGREEMENT Dt. 24.08.2016 FOR SALE OF POWER FROM (2x800 MW) STAGE- I SRI DAMODARAM SANJEEVAIAH THERMAL POWER STATION**

20. The APPDCL, in its petition, stated that the Commission had given in-principle approval for the Stage-I PPA by Order dated 13.07.2018 in O.P. No. 21/2016.

Subsequently, the Commission directed amendments to certain clauses of PPA in Orders dated 13.08.2020 in O.P. No. 52 of 2019 and Order dated 20.04.2022 in O.P. No. 31 of 2020. That APPDCL has prepared and sent the draft amendments to AP DISCOMs and the same is pending with AP DISCOMs. APDISCOMS, by letter dated 10.07.2024, have submitted the Amendment - 1 to 2x800 MW Stage-I SDSTPS Amended and Restated PPA Dt 24.08.2016 was signed between APDISCOMs and APPDCL on 27.06.2024 to the Commission for taking necessary action.

### **Commission's Decision**

The above amendments were carried out in terms of the directions issued by the Commission Orders in O.P.No.52 of 2019 dt. 13.08.2020, O.P.No.31 of 2019 dt. 20.04.2022 and O.P.No.53 of 2019 dt. 11.01.2024. After carefully examining the amendments (**Annexure-VIII**), the Commission approves the PPA dated 27.06.2024, i.e. AMENDMENT-1 TO AMENDED AND RESTATED POWER PURCHASE AGREEMENT Dt. 24.08.2016.

21. APDISCOMS expressed serious concerns about the performance of APPDCL's SDSTPS power plants. This is evident from the PLF of this plant in the last few years. As fewer coal stocks & low-quality of coal are leading to less power availability from the APPDCL Stations, there is greater uncertainty in the power procurement planning of the DISCOMS. To overcome this uncertainty, the Govt.shall intervene and address all performance-related issues, including coal logistics, to improve the performance of APPDCL and also for less dependence on markets to maintain the 24X7 power supply to end consumers. Because of the poor performance of this plant, additional costs in short-term purchases are being imposed on retail consumers. Therefore, the Commission directs the DISCOMS to deduct five paise from variable costs if the actual availability in any month is up to 5 per cent less than the normative/target, 10 paise if the actual

availability shortage falls in the range of 5-15 per cent and 15 paise if the actual availability falls short of more than 15 per cent. APPDCL may seek release of the withheld amount by the DISCOMS by filing an appropriate petition in this regard with reasons for such non-performance and showing that they are uncontrollable.

22. Further, it is the responsibility of APPDCL to maintain the required coal stocks at their respective stations as per the norms. Accordingly, the working capital requirement has been allowed in this order while computing the Return on Capital Employed. Maintenance of minimum coal stocks required on average for uninterrupted generation for 15 days is the widely accepted norm in planning the maintenance and running of thermal generating stations. The APPDCL shall hereafter treat adherence to such minimum norm as a direction from the Commission under Section 142 of the Electricity Act, 2003. The APPDCL shall submit monthly compliance reports to the Commission by the 10th of every succeeding month commencing from December 2024 about compliance with this requirement, and the distribution licensees may verify the non-compliance with the direction at the time of monthly admission of bills. In case there is a deviation of more than 10 percent of the norm, DISCOMS may file a petition before the Commission under section 142 for violation of the above direction, besides seeking recovery of WC corresponding to the maintaining of actual coals stocks. The Commission also directs the DISCOMS that the payments to APPDCL shall be made with promptitude, strictly as per the PPA approved by the Commission. Any violation of this direction entitles the APPDCL to initiate proceedings under Section 142 of the Electricity Act before this Commission besides regulating power supply as per Rule 6 of the Electricity (Late Payment Surcharge and Related Matters)



Rules, 2022.

23. **Any violation of the directions issued by the Commission in this Order will entail in action being taken by the Commission Suo motu under Sections 142 and 146 of the Electricity Act, 2003.**
24. **APPDCL** is entitled to recover the tariff as determined in this order from APDISCOMs in proportion to the power supplied to them.
25. In the light of the above discussion, the Commission hereby grants consent to the PPA in OP No 6 of 2023 for Stage II with the suggested modifications enclosed to this Order and an Amendment 1 dated 27.06.2024 to the PPA dated 24.08.2016 of Stage I with the tariff as determined and the conditions as modified above. APDISCOMs are directed to incorporate the modifications as directed in the foregoing and submit the amended PPA dated 14.10.2022 signed by all the parties within 30 days from the date of this Order for approval by the Commission.

The OPs accordingly stand disposed of.

**Sd/-**  
**P.V.R Reddy**  
**Member**

**Sd/-**  
**Justice C.V. Nagarjuna Reddy**  
**Chairman**

**Sd/-**  
**Thakur Rama Singh**  
**Member**

## Annexure-I

**ఆంధ్రప్రదేశ్ పవర్ డెవలప్మెంట్ కంపెనీ లిమిటెడ్  
ఆంధ్రప్రదేశ్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమిషన్**

విద్యుత్ నియంత్రణ భవన్, 220/132/33 KV సబ్ స్టేషన్ ఆవరణలో,  
దినెదేవరపాడు రోడ్, కర్నూలు, ఆంధ్రప్రదేశ్ - 518002

**బహిరంగ ప్రకటన  
ఓ.పి. నెంబర్: 21/2024**

ఇందుమూలంగా యావన్మందికి తెలియజేయడము ఏమనగా, విద్యుత్ ఉత్పత్తి వ్యాపారంలో ఉన్న ఆంధ్రప్రదేశ్ పవర్ డెవలప్మెంట్ కంపెనీ లిమిటెడ్ ("APPDCL") వారు ఆంధ్రప్రదేశ్ డిస్ట్రిబ్యూషన్ లైసెన్సుదారులకు పంపిణీ చేయుచున్న విద్యుత్ యొక్క టారిఫ్ నిర్ధారణ కోసం ఈ విధంగా దరఖాస్తును సమర్పించింది. (1) 2x800 MW స్టేజ్-I SDSTPS 5వ నియంత్రణ కాలం 2024-2029 యొక్క అదనపు మూలధన వ్యయం & టారిఫ్ నిర్ధారణ కోసం, (2) 1x800 MW స్టేజ్-II SDSTPS 4వ నియంత్రణ కాల వ్యవధి 2019-24 లో మిగిలిన కాలం కోసం అనగా COD 10.03.2023 నుండి 31.03.2024 వరకు మూలధన వ్యయం & టారిఫ్ నిర్ధారణ కోసం, (3) 1x800 MW స్టేజ్-II SDSTPS 5వ నియంత్రణ కాల వ్యవధి 2024-2029 టారిఫ్ నిర్ధారణ కోసం, గౌరవనీయమైన కమిషన్ ద్వారా O.P.No. 21/2024 గా రికార్డు చేయబడింది.

టారిఫ్ దరఖాస్తు యొక్క కాపీ మరియు దానికి సంబంధించిన అన్ని అనుబంధాలను APGENCO వెబ్సైట్ [www.apgenco.gov.in](http://www.apgenco.gov.in) లో మరియు APERC వెబ్సైట్ [www.aperc.gov.in](http://www.aperc.gov.in) లో అందుబాటులో ఉన్నాయి. టారిఫ్ దరఖాస్తు యొక్క కాపీ ఇ-మెయిల్ [appdcl.office@gmail.com](mailto:appdcl.office@gmail.com) ద్వారా ఉచితంగా పొందవచ్చు లేదా చీఫ్ జనరల్ మేనేజర్, APPDCL, 2వ అంతస్తు, APPCC బిల్డింగ్, విద్యుత్ సౌధ, గుణదల, విజయవాడ - 520004 నుండి రాతపూర్వక దరఖాస్తు ద్వారా ఫోటో కాపీ మరియు తపాలా ఖర్చు చెల్లించి హార్డ్ కాపీ పొందవచ్చును. దరఖాస్తును పైన పేర్కొన్న కార్యాలయంలో కూడా తనిఖీ చేయవచ్చు.

APPDCL ప్రతిపాదించిన టారిఫ్లపై అభ్యంతరాలు లేదా సూచనలు ఏమైనా ఉంటే, సపోర్టింగ్ మెటీరియల్ మరియు సర్వీస్ కనెక్షన్ యొక్క రుజువుతో పాటు సెక్రటరీ, APERCకి పైన పేర్కొన్న చిరునామాకు లేదా చీఫ్ జనరల్ మేనేజర్, APPDCL, 2వ అంతస్తు, APPCC బిల్డింగ్, విద్యుత్ సౌధ, గుణదల, విజయవాడ - 520004 చిరునామాకు వ్యక్తిగతంగా లేదా రిజిస్టర్డ్ పోస్ట్ ద్వారా దాఖలు చేయవచ్చు. అభ్యంతరాలను స్వీకరించేందుకు చివరి తేది 03.07.2024. అభ్యంతరాలు/సూచనలపై సంతకం చేసి పూర్తి పేరు మరియు పోస్ట్ చిరునామా కలిగి ఉండాలి. అభ్యంతరాలు/సూచనలను పంపుతున్న వ్యక్తి లేదా వ్యక్తులు ఏదైనా సంస్థ లేదా ఏదైనా వర్గం వినియోగదారుల తరపున అభ్యంతరాలు దాఖలు చేయబడితే, దానిని పేర్కొనాలి మరియు అభ్యంతరదారుడు వ్యక్తిగతంగా విచారణకు హాజరుఅవ్వాలనుకుంటే, దానిని కూడా ప్రత్యేకంగా పేర్కొనాలి.

ఈ నోటీసుకు ప్రతిస్పందనగా వచ్చిన అభ్యంతరాలు/సూచనలను పరిశీలించిన తర్వాత గౌరవనీయమైన కమిషన్ వారు విచారణ తేదీలను తెలియజేయును.

కమిషన్ యొక్క ఆదేశంతో

**తేది : 04.06.2024**

**Sd/- చీఫ్ జనరల్ మేనేజర్**

**స్థలం: విజయవాడ**

**APPDCL/ విజయవాడ**

**DIPR Ro No.3017PP/CL/Advt/1/1/2021-22, Dt.03.06.2024**



**Annexure-II**

**ANDHRA PRADESH POWER DEVELOPMENT COMPANY LTD.**  
**BEFORE THE ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION,**  
**Vidyuth Niyatrana Bhavan, 220/132/33 KV, AP Carbides Substation**  
**Premises, Dinnedevarapadu Road, Kurnool, Andhra Pradesh - 518002**

**PUBLIC NOTICE**  
**O.P. No. 21/2024**

Notice is hereby given to all that the Andhra Pradesh Power Development Company Ltd. ("APPDCL"), a company in the business of generation of electricity, has submitted an Application for Determination of (1) **Additional Capital Cost & Tariff for 2x800 MW Stage-I SDSTPS** for the 5<sup>th</sup> Control Period 2024-2029, (2) **Capital Cost & Tariff for 1x800 MW Stage-II SDSTPS** for balance period from COD 10.03.2023 to 31.03.2024 in 4<sup>th</sup> Control Period and (3) **Tariff for 1x800 MW Stage-II SDSTPS** for 5<sup>th</sup> Control Period 2024-2029 for supply of electricity generated at the **Sri Damodaram Sanjeevaiah Thermal Power Station Stage - I & II (3 x 800 MW)** to the Distribution Licensees of Andhra Pradesh which has been taken on record by the Hon'ble Commission in OP No 21 of 2024.

A copy of the Application together with all annexure thereto is available on the website of APGENCO at [www.apgenco.gov.in](http://www.apgenco.gov.in) and also on the website of the APERC at [www.aperc.gov.in](http://www.aperc.gov.in). Copies of the Application may be obtained on e-mail [appdcl.office@gmail.com](mailto:appdcl.office@gmail.com) or written application from the Chief General Manager, APPDCL, 2<sup>nd</sup> Floor, APPCC Building, Vidyut Soudha, Gunadala, Vijayawada- 520004 by e-mail at free of cost or as hard copy on payment of the cost of photocopying and postage if any. The Application may also be inspected at the aforesaid office.

Objections or suggestions, if any, on tariffs proposed by APPDCL, together with supporting material may be filed with the Secretary, APERC, at the address mentioned above, in person or through Registered Post, so as to reach him on or before 03.07.2024, along with proof of service of the same on Chief General Manager, APPDCL, 2<sup>nd</sup> floor, APPCC Building, Vidyut Soudha, Gunadala, Vijayawada- 520004. The objections/suggestions should be filed duly signed and should carry full name and postal address of the person(s) sending the objections/suggestions. If the objections are filed on behalf of any organization or any category of consumers, it should be so mentioned and if the objector also wants to be heard in person, it may also be specifically mentioned so.

After perusing the objections/suggestions received in response to this notice the Hon'ble Commission may notify the dates for hearing as it considers appropriate.

**BY ORDER OF THE COMMISSION**

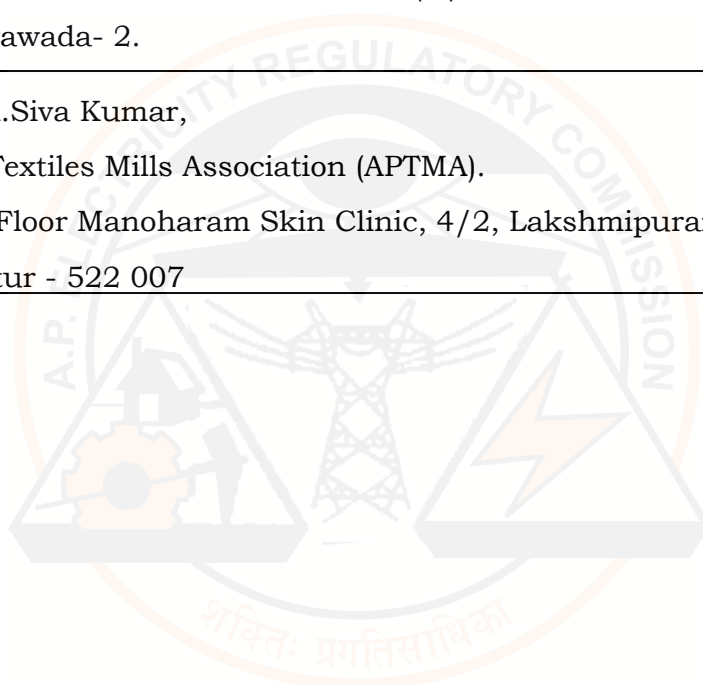
Date: 04.06.2024  
Place: Vijayawada

Sd/- **Chief General Manager,**  
**APPDCL/Vijayawada**

DIPR-RO-No: 3017PP/CL/ADVT/1/1/2024-25 Dt:03/06/2024

**Annexure-III (List of Objectors)**

<b>S.No</b>	<b>Name of the Objector</b>
1	Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, H.No.1-100/MP/101, Monarch Prestige, Journalists' Colony, Serilingampally Mandal, Hyderabad - 500 032
2	Sri Ch. Baburao, State Secretariat Member, Communist Party of India (MARXIST) AP Committee, H.No.27-30-9, CPI (M), Akulavari Street, Governorpeta, Vijayawada- 2.
3	Sri R.Siva Kumar, A.P.Textiles Mills Association (APTMA). 2nd Floor Manoharam Skin Clinic, 4/2, Lakshmipuram, Guntur - 522 007



**Annexure-IV**Suggested modifications to the SDSTPS Stage-II PPA

Clause No.	Proposed by APPDCL	Amendments to be carried out	Reasons for amendment
1.20	Normative Plant availability factor: it is in relation to the generating station means the availability factor specified in clause 49 (A)(a) of CERC Regulations 2019 i.e., 85%.	Normative Annual Plant Availability Factor(NAPAF): in relation to generating station means the availability factor specified in clause 49 (A)(a) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and clause 70(A)(a) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, i.e., 85%.	The Clause is modified to provide more clarity
1.30	Depreciation: means the sum of the amounts of depreciation on buildings, equipment and other capital facilities of the Project on the date hereof, and in respect of any asset, shall be allowed up to 90% of the approved Capital Cost and shall cease so soon as its net book value equals the residual value i.e., 10 percent of its original cost as included in the Capital Cost.	Depreciation: means the sum of the amounts of depreciation on buildings, equipment and other capital facilities of the Project on the date hereof, and in respect of any asset, shall be allowed up to 90% of the approved Capital Cost(excluding the cost of land) and shall cease as so soon as its net book value equals the residual value i.e., 10 percent of its original cost as included in the Capital Cost.	The Clause is modified to exclude the land cost
1.32	Energy Charges: Energy charges shall cover fuel costs and shall be as determined by APERC or any other competent Authority.	Energy Charges: Energy charges shall cover fuel costs as determined by APERC.	The Clause is modified as only APERC has the authority to determine the energy charges

1.37	Interest on Working Capital: The Interest on Working Capital shall be as per the APERC norms	Interest on Working Capital: The Interest on Working Capital shall be as per APERC Regulation 1 of 2008 as amended from time to time.	The Clause is modified to provide more clarity
1.45	IEGC: Indian Electricity Grid Code, as approved by APERC or any other competent authority and as amended from time to time.	IEGC: Indian Electricity Grid Code notified by CERC as amended from time to time.	The Clause is modified as only the CERC has the authority in the matter of IEGC
2.3.2	Supplier shall follow the APSLDC's directives, to back down, increase or resume generation, or decrease generation at times on a day, provided that such directives are consistent with the technical limits of the facility, Prudent Utility Practices or in accordance with discharge functions of APSLDC. Number of dispatch instructions per day shall not exceed two. The duration of back down and quantum of energy backed down each day shall be reconciled and certified by both the Supplier (at station level) and APSLDC on monthly basis.	Supplier shall follow the APSLDC's directives, to back down, increase or resume generation, or decrease generation at times on a day, provided that such directives are consistent with the technical limits of the facility, Prudent Utility Practices or in accordance with discharge functions of APSLDC. The duration of back down and quantum of energy backed down each day shall be certified by APSLDC every month.	There are no restrictions on the number of dispatches either as per IEGC or the Code of Technical Interface issued by CERC and APERC. Further, the duration of back down and quantum of energy backed down each day shall be certified by only APSLDC as an independent entity/third party.
3.11	Colony Consumption: Auxiliary energy consumption shall not include energy for the supply of power to the housing colony and other facilities at the generating station and the power consumed for construction works at the generating station, as per Claus No: (05) of CERC Regulation 2019.	Deleted	The clause is redundant as it is already covered in clause 1.8




4.1	Scheduling: The methodology of generation scheduling shall be as per the relevant APERC Regulations read along with the provisions of the Indian Electricity Grid Code (as revised from time to time) and the decisions taken at SRPC forums. All charges/fees related to scheduling and despatch of electricity shall be borne by the Utility.	Scheduling: The methodology of generation scheduling shall be as per the relevant APERC Regulations read along with the provisions of the Indian Electricity Grid Code (as revised from time to time). All charges/fees related to scheduling and despatch of electricity shall be borne by the Utility.	The Scheduling shall be on only relevant APERC/CERC Regulations not based on the decisions taken in SRPC forums.
Article 8	Force Majeure No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to .....	Force Majeure No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to ... If the Supplier is not in agreement with the Utility's decision on force majeure, it is entitled to raise a dispute before APERC for adjudication.	Extra Para is added at the end of the clause in line with the decision taken by the Commission in respect of the RTPP-IV PPA.
Annexure -III (a)	$P_p$ = Landed cost of Primary fuel namely coal or lignite or gas or liquid fuel in or Rs/cubic- meter ( $m^3$ ), as the case may be	$P_p$ = Landed cost of Primary fuel namely coal or lignite or gas or liquid fuel in Rs/kg or Rs/litre or Rs/cubic- meter ( $m^3$ ), as the case may be	'Rs/kg or Rs/litre' are inserted as the same were omitted.
New clause to be inserted	—	As Intrastate ABT is not yet implemented in the State, an appropriate clause should be inserted to the effect that until the Commission notifies the Intrastate ABT Regulation, the energy charges and incentive for exceeding the target PLF shall be based on the actual energy supplied.	

New clause to be inserted	–	In the PPA, there is no mention of the percentage shares of Capacity in the project for each DISCOM.	The new clause is to be inserted in line with the decision taken by the Commission in respect of the RTPP-IV PPA.
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**Annexure-V**



**SESHAPU BALA MANIKANTA & CO**  
**CHARTERED ACCOUNTANTS**

C.A. Seshapu Bala Manikanta  
84979 95818, 83285 49941

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**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that M/S. Andhra Pradesh Power Development Company Limited, (APPDCL), having its corporate office at Gunadala, Vijayawada - 520004, has incurred Capital Expenditure (CAPEX) towards on its Power Project of Sri Damodaram Sanjeevaiah Thermal Power Station (SDSTPS – II -1x800MW), at Nellore up to 31-03-2023 as mentioned below:

**SDSTPS Stage-II – (1x800MW) Capex**


	Description	Amount in Rs.Cr.
1	Cost incurred for Stage-II works	8674.71
2	Land Cost	52.64
3	R&R Package	43.26
4	Development Cost	33.70
	<b>Total Capex for SDSTPS-II</b>	<b>8804.31</b>

This certificate is given based on the records and information produced and at the request of the company for onward submission to the Hon'ble APERC.

Date: 15-04-2024

Place: Eluru

UDIN: 24260079BKAIRH6886



For SESHAPU BALA MANIKANTA & CO  
Chartered Accountants

*(Signature)*  
SESHAPU BALA MANIKANTA  
Proprietor: M.No.260079

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D.No. 3A-3-8, Behind YMHA Hall, Flower Market Road, Eluru - 534 001  
tbtaxaudit@gmail.com



C.A. Seshapu Bala Manikanta  
84979 95818, 83285 49941

## SESHAPU BALA MANIKANTA & CO

### CHARTERED ACCOUNTANTS

#### TO WHOM SO EVER IT MAY CONCERN

This is to certify that M/s Andhra Pradesh Power Development Company Limited (APPDCL) having its corporate office at Gunadala, Vijayawada-520004, has incurred additional Capital Expenditure (CAPEX) towards balance works of 1x800MW Stage-II SDSTPS at SPSR Nellore from COD to 31-03-2024 as mentioned below:

#### SDSTPS Stage-II- (1x800 MW) Capex

S.No.	Description	Amount in Rs. Crs
1	Capex for SDSTPS-II upto COD	8,804.31
2	Additional Capex from COD to 31.03.2024	147.11
	<b>Total Capex for SDSTPS-II upto 31.03.2024</b>	<b>8,951.42</b>

This certificate is given based on the records and information produced and at the request of the Company for onward submission to the Hon'ble APERC.

Date: 28-10-2024

Place: Eluru

UDIN: 24260079BKAI5U4860



For SESHAPU BALA MANIKANTA & CO  
Chartered Accountants

*[Signature]*  
SESHAPU BALA MANIKANTA  
Proprietor: M.No.260079

Chartered Accountant sign & stamp

D.No. 3A-3-8, Behind YMHA Hall, Flower Market Road, Eluru - 534 001  
[tbtaxaudit@gmail.com](mailto:tbtaxaudit@gmail.com)

## Annexure-VI

**ANDHRA PRADESH POWER DEVELOPMENT COMPANY LIMITED**  
**Variable Cost Data(Actuals) FY 2023-24 for Stage-II of SDSTPS**

Month												As per Norms Variable cost			
	Domestic Coal	Imported Coal	GCV of DC	GCV of IC	Cost of DC	Cost of IC	Bending of IC	Coal GCV	COAL	OIL	Oil GCV	Sp. Coal	V Coal	V Oil	VC
	MT	MT	Kcal/Kg	Kcal/Kg	Rs/MT	Rs/MT	%	Cc	Pc	Ps	Cs	Sc	vc	vs	vc+vs
SDSTPS /Stg-II								(kCal/kg)	Rs/Ton	(Rs/kl)	(kCal/litre)	(kg/kWh)	Rs./Kwh		
Apr-23	2,97,159	78,815	4,082	5,110	5,080	11,734	20.96%	4254	6371	60648	10584	0.54	3.68	0.03	3.71
May-23	3,11,801	1,42,110	3,971	4,924	5,038	12,229	32.01%	4201	7189	59111	10231	0.55	4.20	0.03	4.24
Jun-23	2,85,256	92,479	3,672	5,018	4,699	12,147	24.48%	3827	6485	57574	10158	0.60	4.16	0.03	4.19
Jul-23	2,88,961	72,028	4,023	4,913	5,024	10,523	19.95%	4023	6063	59116	10238	0.57	3.70	0.03	3.73
Aug-23	3,43,232	90,726	3,858	5,076	5,154	10,092	20.91%	3967	6066	68116	10216	0.58	3.76	0.04	3.79
Sep-23	3,40,979	39	4,016		5,517		0.01%	3730	5522	70951	10323	0.62	3.64	0.04	3.67
Oct-23	3,74,512	44,783	3,980	5,160	5,258	10,700	10.68%	3776	5818	69869	10260	0.61	3.78	0.04	3.82
Nov-23	1,98,238	0	3,933		5,115	0	0.00%	3708	5115	69592	10346	0.62	3.39	0.04	3.43
Dec-23	3,14,579	0	3,861		5,143	0	0.00%	3652	5142	64325	10554	0.63	3.46	0.03	3.49
Jan-24	2,14,007	0	4,158		5,500	0	0.00%	4021	5500	62376	10799	0.57	3.36	0.03	3.39
Feb-24	3,81,422	0	4,041		5,512	0	0.00%	3874	5512	58669	10202	0.59	3.50	0.03	3.53
Mar-24	416409	0	4,090		5,525	0	0.00%	3935	5525	61879	10254	0.58	3.45	0.03	3.48

**ANDHRA PRADESH POWER DEVELOPMENT COMPANY LIMITED**  
**Variable Cost Data (Actuals) FY 2023-24 for Stage-I of SDSTPS**

Month												As per Norms Variable cost			
	Domestic Coal	Imported Coal	GCV of DC	GCV of IC	Cost of DC	Cost of IC	Bending of IC	Coal GCV	COAL	OIL	Oil GCV	Sp. Coal	V Coal	V Oil	VC
	MT	MT	Kcal/Kg	Kcal/Kg	Rs/MT	Rs/MT	%	Cc	Pc	Ps	Cs	Sc	vc	vs	vc+vs
SDSTPS /Stg-I								(kCal/kg)	Rs/Ton	(Rs/kl)	(kCal/litre)	(kg/kWh)	Rs./Kwh		
Apr-23	2,15,306	6702	4,111	5,110	5036	11734	20.96%	4151	5240	56641	10584	0.52	2.89	0.03	2.92
May-23	2,11,412	14799	3,965	4,924	4959	12229	32.01%	3935	5438	58333	10231	0.55	3.17	0.03	3.20
Jun-23	2,54,903	8708	3,679	5,018	4409	12293	24.48%	3593	4672	58604	10158	0.60	2.98	0.03	3.01
Jul-23	1,63,044	2634	4,014	4,913	4942	10523	19.95%	3900	5031	59723	10238	0.55	2.96	0.03	2.99
Aug-23	3,852	0	3,984		5539	0	20.91%	3649	5539	59112	10216	0.59	3.48	0.03	3.51
Sep-23	24,280	0	3,967		5271	0	0.01%	3670	5271	78116	10323	0.59	3.29	0.04	3.33
Oct-23	92,616	1379	3,945	5,160	5061	10700	10.68%	3760	5144	71642	10260	0.57	3.13	0.04	3.17
Nov-23	2,34,782	0	3,907		5134	0	0.00%	3719	5134	69531	10346	0.58	3.16	0.04	3.20
Dec-23	1,39,735	0	3,732		4755	0	0.00%	3596	4755	72644	10554	0.60	3.03	0.04	3.07
Jan-24	1,39,982	0	4,023		5115	0	0.00%	3811	5115	67772	10799	0.57	3.07	0.04	3.11
Feb-24	1,93,732	0	3,985		5472	0	0.00%	3777	5472	64295	10202	0.57	3.32	0.03	3.35
Mar-24	251440	0	3,890		5365	0	0.00%	3771	5365	60612	10254	0.57	3.26	0.03	3.29



**Annexure-VIII****Information to be furnished by APPDCL at the time of submission of  
monthly FCA bill to APDISCOMS**

<b>Sr. No.</b>	<b>Month-wise</b>	<b>Unit</b>	<b>----</b>
<b>A)</b>	<b>OPENING QUANTITY</b>		
1	Opening Quantity of Coal	(MMT)	
2	Value of Stock		
<b>B)</b>	<b>QUANTITY</b>		
3	The quantity of Coal supplied by the Coal Company for the particular month, giving complete details of the mode of transportation used along with the quantity.	(MMT)	
	By Rail		
	By Road		
	By Ship		
	By MGR		
	By any other mode (specify)		
4	Adjustment (+/-) in quantity supplied made by Coal Company *	(MMT)	
5	Coal supplied by Coal Company (3+4)	(MMT)	
6	Actual Transit & Handling Losses specify the source	(MMT)	
7	Actual coal received	(MMT)	
<b>C)</b>	<b>PRICE</b>		
8	The amount charged by the Coal Company	(Rs.)	
9	Adjustment (+/-) in the amount charged made by Coal Company *	(Rs.)	
10	Unloading, Handling and Sampling charges.		
	Unloading charges		
	Handling charges		
	Sampling charges		
11	Total amount Charged (8+9+10)	(Rs.)	
<b>D)</b>	<b>TRANSPORTATION</b>		
12	Transportation charges by rail/ship/road transport	(Rs.)	
	By Rail		
	By Road		
	By Ship		
	By MGR		
13	Adjustment (+/-) in the amount charged made by Railways/Transport Company	(Rs.)	
14	Demurrage Charges, if any	( Rs.)	
15	Cost of fuel in transporting coal through the MGR system, if applicable	( Rs.)	
16	Total Transportation Charges (12+13+14+15)	( Rs.)	
17	Total amount Charged for coal supplied including Transportation (11+16)	( Rs.)	
<b>E)</b>	<b>TOTAL COST</b>		
18	Landed cost of coal (2+17)/(1+7)	Rs./MT	
19	Blending Ratio (Domestic/Imported)		
20	Weighted average cost of coal for the preceding twelve months	Rs./MT	

<b>F)</b>	<b>QUALITY</b>		
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(kCal/Kg)	
22	GCV of Domestic Coal supplied as per the bill of the Coal Company	(kCal/Kg)	
23	GCV of Imported Coal of the opening stock as per the bill Coal Company	(kCal/Kg)	
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)	
25	Weighted average GCV of coal as Billed	(kCal/Kg)	
26	GCV of Domestic Coal of the opening stock as received at Station	(kCal/Kg)	
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)	
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)	
30	Weighted average GCV of coal as Received	(kCal/Kg)	
31	Actual Station heat rate achieved	(kCal/kWh)	
32	Actual Auxiliary Consumption	%	
33	Actual Specific Oil Consumption	ml/kWh	
<b>(*specifying the period of adjustment along with reason and support document for the adjustment)</b>			

Note:

1. As billed and as received GCV, quantity of coal, and price should be submitted as certified by the statutory auditor.
2. The action taken to address the difference in GCV between as billed and as received should be submitted.
3. The details of source-wise fuel for the computation of energy charges should be provided in the above format. Details are to be provided for each source separately. If there is more than one source, add an additional column.
4. A break-up statement of the amount charged by the coal company is to be provided separately.
5. Details of planned and unplanned diversions of the coal from one plant to another are to be provided, if any, under the flexi scheme and the certificate to the effect that there are no unplanned diversions of coal. If there is unplanned coal diversion, the cost implications shall be indicated separately in addition to the information in the above format.

## Annexure-VIII

**AMENDMENT - 1 BETWEEN APDISCOMS AND APPDCL TO THE AMENDED AND RESTATED  
POWER PURCHASE AGREEMENT DATED 24.08.2016.**

Clause No.	Existing Clause in Amended and Restated PPA dt.24.08.2016	Amended as
1.20	<p><b><u>Normative Plant Availability factor:</u></b></p> <p>It is in relation to a generating station means the availability factor specified in clause 11 of APERC regulations dt.01.09.2008.</p>	<p><b><u>Normative Plant Availability factor:</u></b></p> <p>The target availability for full recovery of annual fixed charges shall be 85% without there being any additional imported fuel over and above 30% and the target plant load factor for incentive shall be 85% with effect from 01.10.2021. From 05.02.2015 to 30.09.2021 the target availability for full recovery of annual fixed charges shall be 80%.</p>
3.6 (c)	<p><b><u>Fixed Charges prior to Project COD:</u></b></p> <p>Target availability of the unit for recovery of full fixed charges shall be 80%. APPDCL shall receive full Annual Fixed Charges if availability in the Tariff Period or Tariff Year is not less than 80%. Should Availability ne less than 80%, Fixed Charges shall be allowed on pro-rata basis based on actual Availability vis-a-vis Target Availability of 80%.</p>	<p><b><u>Recovery Of Fixed Charges:</u></b></p> <p>Target availability of the unit for recovery of full fixed charges shall be 85%. APPDCL shall receive full Annual Fixed Charges if Availability in the Tariff Period or Tariff Year is not less than 85%. Should Availability be less than 85%, Fixed Charges shall be allowed on pro-rata basis based on actual Availability vis-à-vis Target Availability of 85%.</p>
3.16 (a) & (c)	<p><b><u>Incentive:</u></b></p> <p>a) Target Plant Load Factor for incentive shall be 80%.</p>	<p><b><u>Incentive:</u></b></p> <p>(a) Target Plant Load Factor for incentive shall be 85%.</p> <p>(c) Deleted</p>

Clause No.	Existing Clause in Amended and Restated PPA dt.24.08.2016	Amended as
	c) The above thermal incentive shall be applicable as per clause (15) of APERC Regulations 1 of 2008, dt:01.09.2008.	
2.1	<p><b><u>Power Supplies by APPDC:</u></b></p> <p>a) Sale and Purchase of Infirm Power: After Synchronization and prior to the COD of any Generating Unit, APPDCL, will sell and APDISCOMs will purchase all infirm power generated by that Generating Unit.</p> <p>b) Sale and Purchase of Declared Capacity and Net Electrical Energy: Unless otherwise provided in this Agreement, from and after the COD of the First Generating Unit, APPDCL shall make available and deliver, and APDISCOMs shall purchase for the consideration set forth in this Agreement, the 90% of Declared Capacity and corresponding scheduling energy to such Dispatch Instructions as may be in effect from time to time.</p>	<p><b><u>Power Supplies by APPDC:</u></b></p> <p>(a): Sale and Purchase of Infirm Power: After Synchronization and prior to the COD of any Generating Unit, APPDCL, will sell and APDISCOMs will purchase all infirm power generated by that Generating Unit.</p> <p>(b): Sale and Purchase of Declared Capacity and Net Electrical Energy: Unless otherwise provided in this Agreement, from and after the COD of the First Generating Unit, APPDCL shall make available and deliver, and APDISCOMs shall purchase for the consideration set forth in this Agreement, the 90% of Declared Capacity and corresponding scheduling energy to such Dispatch Instructions as may be in effect from time to time.</p> <p>(c): Notwithstanding anything contained herein above, in the event that the APDISCOMs do not avail any part of the power up to the declared capacity provided by Supplier in any time block, or if the Supplier is required to back down, then Supplier shall have the option to either.</p>

Clause No.	Existing Clause in Amended and Restated PPA dt.24.08.2016	Amended as
		<p>(i) Sell such declared capacity not availed by APDISCOMs in such time block to any third party, or</p> <p>(ii) Require payment of fixed charges from the Utility/APDISCOMs towards such un-availed declared capacity not sold to third parties; Provided that the Utility/APDISCOMs shall not be required to pay Fixed Charges corresponding to such time blocks, during which the un-availed declared capacity is sold to third parties.</p> <p>(d): In the event the annual Plant Load Factor (PLF) exceeds Target PLF for Incentive as a result of the aggregate energy exported to Utility and to third parties under separate commercial arrangements on the conditions as stated in clause 2.1(c) above, Utility/APDISCOMs shall pay to the Supplier/APPDCL an Incentive Payment, as stated in "this Agreement".</p> <p>However, the Procurers, notwithstanding the sale to third parties as aforesaid, shall continue to pay the Incentive Payment for the energy exported by Supplier/APPDCL over and above Target availability excluding the energy exported to the third parties of "this Agreement".</p> <p>It is further clarified that the incentive to be paid inter-se in the events stated above for export of energy beyond the target PLF</p>

Clause No.	Existing Clause in Amended and Restated PPA dt.24.08.2016	Amended as
		shall be calculated for each financial year during the tenure of this agreement.”
Article 8	<p><b><u>Force Majeure:</u></b></p> <p>No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the Agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation/drawl of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.</p> <p>The generator is entitled to claim only fixed charges and cannot claim any consequential losses during force majeure.</p>	<p><b><u>Force Majeure:</u></b></p> <p>No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the Agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation/drawl of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.</p> <p>The generator is entitled to claim only fixed charges and cannot claim any consequential losses during force majeure. For this purpose, the Supplier will issue a notice for force majeure to the Utility for concurrence / acceptance. If the Utility, based on the circumstances, accept / approve Supplier’s claim of force majeure, Utility will pay the fixed cost. If it is not approved for valid reasons, the Utility will not pay the fixed cost; provided that the RoE element of fixed cost will not be paid for any force majeure period. In case any payments are received from the contractor or coal supplier by way of compensation</p>



Clause No.	Existing Clause in Amended and Restated PPA dt.24.08.2016	Amended as
		by Supplier and compensation received from Insurance towards Fixed cost component, if any, in the event of any Force majeure, then Supplier shall be liable to pass on such benefit to Utility".
2.3.4	<p><b><u>Backing Down Limits of Units</u></b></p> <p>For SDSTPS, Gross generation of Unit shall not be backed down to the limit of 28.6% in the Installed Capacity.</p>	<p><b><u>Backing Down Limits of Units</u></b></p> <p>The technical limits shall be in line with the prevailing CERC Regulation. i.e.55% of MCR loading or installed capacity of the unit at generating station.</p> <p>Ramp rates and technical minimum backing-down limits of generation shall be as per the CERC IEGC Regulations, as amended from time to time.</p> <p>The unit shall be compensated in case the utility/APDISCOMs give back down instructions or instructions for dispatch below the declared availability as per the regulation 6.3B of CERC regulation (IEGC) 2010.</p>
3.10.3	<p><b><u>Specific Oil Consumption</u></b></p> <p>2.0 ml/Kwh inline with clause 11.1.4 of APERC regulations.</p>	<p><b><u>Specific Oil Consumption</u></b></p> <p>0.5 ml/Kwh from 01.04.2023 is considered.</p>