Telangana State Electricity Regulatory Commission

5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-Pul, Hyderabad 500004

ORDER

ON

TRUE-UP FOR FY 2016-17 TO FY 2018-19

AND

BUSINESS PLAN,

CAPITAL INVESTMENT PLAN &

MULTI YEAR TARIFF

FOR FY 2019-20 TO FY 2023-24

FOR

SINGARENI THERMAL POWER PROJECT (2x600 MW)

OF

THE SINGARENI COLLIERIES COMPANY LIMITED

28.08.2020

CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

A&G	Administrative and General
AAD	Advance Against Depreciation
AFC	Annual Fixed Charges
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
BFP	Boiler Feed Pump
BHEL	Bharat Heavy Electricals Ltd.
BMCR	Boiler maximum continuous rating
BoP	Balance of Plant
BTG	Boiler, Turbine and Generator
CCDAC	Coal Conservation & Development Advisory Committee
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CFB	Circulating Fluidised Bed
CFL	Compact Fluorescent Lamps
CIL	Coal India Limited
CIP	Capital Investment Plan
CISF	Central Industrial Security Force
CPCB	Central Pollution Control Board
COD	Commercial Operation Date
CPI	Consumer Price Index
CSR	Corporate Social Responsibility
DC	Designated Consumer
DMFT	District Mineral Foundation Trust
DPR	Detailed Project Report
EA 2003	Electricity Act, 2003
EPC	Engineering, Procurement and Construction
EPCA	Environment Pollution Control Authority
ERP	Enterprise Resource Planning
ESP	Electrostatic Precipitator
FGD	Flue Gas Desulphurisation
FSA	Fuel Supply Agreement
FY	Financial Year
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GoTS	Government of Telangana State
GSHR	Gross Station Heat Rate
GST	Goods and Services Tax
HPSV	High-Pressure Sodium Vapour Lamps
ICB	International Competitive Bidding
IDC	Interest During Construction
IDCT	Induced Draft Cooling Tower
Ind AS	Indian Accounting Standard
IoWC	Interest on Working Capital
IT	Information Technology
kcal	kilo calories
kg	Kilogram
KTPP	Kakatiya Thermal Power Plant
kWh	Kilo Watt hour
MAT	Minimum Alternative Tax
MCLR	Marginal Cost of Funds based Lending Rate
MGR	Merry-Go-Round
MMT	Million Metric Tonne
MoC	Ministry of Coal
MoEF&CC	Ministry of Environment, Forest & Climate Change

MoP	Ministry of Power
MoU	Memorandum of Understanding
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NAPAF	Normative Annual Plant Availability Factor
NAPLF	Normative Annual Plant Load Factor
NH	National Highway
NHAI	National Highways Authority of India
NIT	Notice Inviting Tender
NOx	Nitrogen oxides
NTPC	National Thermal Power Corporation Limited
O&M	Operations and Maintenance
O.P.	Original Petition
OEM	Original Equipment Manufacturer
OFC	Optical Fibre Communication
PAF	Plant Availability Factor
PAT	Perform, Achieve and Trade
PFC	Power Finance Corporation
PLF	Plant Load Factor
PPA	Power Purchase Agreement
PSC	Pre-Stressed Concrete
PVC	Price Variation Clause
R&M	Repairs & Maintenance
RCC	Reinforced Cement Concrete
RCE	Revised Capital Expenditure
RDO	Revenue Division Officer
REC	Rural Electrification Corporation
RITES	Rail India Technical and Economic Service
RoE	Return on Equity
Rs.	Rupees
RUB	Railway Under Bridge
S&T	Signalling and Telecommunication
SBI	State Bank of India
SCCL	Singareni Collieries Company Ltd.
SLC	Standing Linkage Committee
SLDC	State Load Despatch Centre
SMET	Sate Mineral Exploration Trust
SPCB	State Pollution Control Board
SOx	Sulphur Oxides
SPCB	State Pollution Control Board
TNSEB	Tamil Nadu State Electricity Board
TSERC	Telangana State Electricity Regulatory Commission
TSGENCO	Telangana State Power Generation Corporation Ltd.
TSMDC	Telangana State Mineral Development Corporation
TSNPDCL	Northern Power Distribution Company of Telangana Ltd.
TSPCC	Telangana State Power Coordination Committee
TSSPDCL	Southern Power Distribution Company of Telangana Ltd.
TSTRANSCO	Transmission Corporation of Telangana Ltd.
UDL	Undischarged Liability
WPI	Wholesale Price Index

TELANGANA STATE ELECTRICITY REGULATORY COMMISSION HYDERABAD

O.P.Nos.4 and 5 of 2019, 8 and 9 of 2020 &
I.A.No.2 of 2020 in O.P.No.5 of 2019

Present
Sri T.Sriranga Rao, Chairman
Sri M.D.Manohar Raju, Member (Technical)
Sri Bandaru Krishnaiah, Member (Finance)

Dated: 28.08.2020

Between:
The Singareni Collieries Company Limited … Petitioner

And

1. **Southern Power Distribution Company of Telangana Limited**
2. **Northern Power Distribution Company of Telangana Limited**

… Respondents

The Singareni Collieries Company Limited (SCCL) filed the Petitions u/s 62 and 86 (1) (a) of the Electricity Act, 2003 and under the provisions of the "Terms and Conditions for Determination of Tariff for Supply of Electricity by a Generating Company to a Distribution Licensee and Purchase of Electricity by Distribution Licensees" Regulation No.1 of 2008, adopted by Telangana State Electricity Regulatory Commission (hereinafter referred to as "TSERC" or "Commission") vide its Regulation No.1 of 2014 and the "Terms and Conditions of Generation Tariff" Regulation No.1 of 2019 for approval of true-up for FY 2016-17 to FY 2018-19, and Business Plan, Capital Investment Plan and Aggregate Revenue Requirement and Multi Year Tariff (MYT) each Financial Year within the Control Period comprising five years from 01.04.2019 to 31.03.2024 (FY 2019-20 to FY 2023-24) for its 2x600 MW Thermal Power Project (TPP).

The Commission, in exercise of its powers under the Electricity Act, 2003, Regulation No.1 of 2008, adopted by TSERC vide its Regulation No.1 of 2014, Regulation No.1 of 2019, and after considering Petitioner's submissions, suggestions and objections of the other stakeholders, responses of Petitioner, issues that are raised during the Public Hearing and all other relevant material, passed the following common Order.

COMMON ORDER
CHAPTER 1
INTRODUCTION

1.1 BACKGROUND

1.1.1 Telangana State Electricity Regulatory Commission (herein referred to as TSERC or the Commission) was constituted by the Government of Telangana State (GoTS) in terms of the provisions of Schedule XII (C) (3) of the A. P. Reorganisation Act of 2014, read with Section 82 of the Electricity Act, 2003 (Act) vide G.O.Ms.No.3, Energy (Budget) Department, dated 26.07.2014.

1.1.2 This Commission having been established u/s 82(1) of the Act had notified TSERC (Adoption) Regulation No.1 of 2014 on 10.12.2014, accordingly all the Regulations framed by the erstwhile APERC shall continue to apply for the State of Telangana including the (Terms and conditions for determination of tariff for supply of electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensees) Regulation, 2008 (Regulation No.1 of 2008) and its subsequent amendments thereto. Subsequently, the Commission had notified TSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 which came into force from the date of its publication in Telangana Gazette i.e., on 01.02.2019.

1.1.3 SCCL is a coal mining company incorporated under the Companies Act, 1956 and owned by GoTS, with 51.096% shareholding. The other shareholders of the company are Government of India (GoI) and private shareholders in the ratio of 48.902% and 0.002% respectively. SCCL has established a 2x600 MW coal based TPP (hereinafter referred to as “the project”) at Jaipur in Mancherial District. SCCL entered into a Power Purchase Agreement (PPA) dated 18.01.2016 with the Southern Power Distribution Company of Telangana Ltd. (TSSPDCL) and Northern Power Distribution Company of Telangana Ltd. (TSNPDCL) (hereinafter referred to as “DISCOMs”) for sale of power from the project for a period of 25 years from the Commercial Operation Date (COD) of last Unit (Unit 2) at the tariff determined by the Commission under Section 62 of the Electricity Act, 2003. Units 1&2 achieved COD on 25.09.2016 and 02.12.2016 respectively.

1.1.4 The Commission, in its Order dated 19.06.2017 in O.P.No.9 of 2016 (hereinafter referred to as "Tariff Order") approved the capital cost and generation tariff for the project for FY 2016-17 to FY 2018-19 in accordance with the Regulation No.1 of 2008 adopting the Central Electricity Regulatory Commission (CERC) (Terms and Conditions of Tariff) Regulations, 2014.

1.1.5 Aggrieved by the Commission's Order dated 19.06.2017, SCCL filed an Appeal before the Hon'ble Appellate Tribunal for Electricity (APTEL) (Appeal No.312 of 2017) on certain issues and the Appeal is sub-judice.

1.1.6 SCCL filed a Petition on 10.07.2018 for approval of true-up for FY 2016-17 and FY 2017-18 and revised additional capitalisation and tariff for FY 2018-19. The said Petition was returned vide letter dated 31.07.2018. Pursuant to the Judgment of Hon'ble APTEL dated 28.09.2018 in DFR No.3035 of 2018 & I.A.No.1127 of 2018, the Petition was again filed on 05.10.2018. Subsequently, the Petitioner filed the additional submissions on 04.12.2019 requesting the Commission to consider the same for true-up for FY 2016-17 to FY 2018-19.

1.1.7 Regulation No.1 of 2019 stipulate the terms and conditions of generation tariff for the Control Period from FY 2019-20 to FY 2023-24. The Petitions for approval of Business Plan, Capital Investment Plan and MYT for the Control Period from FY 2019-20 to FY 2023-24 were filed on 30.03.2019 respectively.

1.2 ADMISSION OF PETITIONS AND REGULATORY PROCESS

1.2.1 The Petitions for approval of true-up for FY 2016-17 to FY 2018-19, Business Plan, Capital Investment Plan and MYT for FY 2019-20 to FY 2023-24 were scrutinised and found to be generally in order as required under the TSERC (Conduct of Business) Regulations, 2015 (Regulation No.2 of 2015). The Commission admitted the filings and the same were taken on record by assigning the following Original Petition (O. P.) numbers:

- O.P.No.4 of 2019 – True-up for FY 2016-17 to FY 2018-19
- O.P.No.5 of 2019 – MYT for FY 2019-20 to FY 2023-24
- O.P.No.8 of 2020 – Business Plan for FY 2019-20 to FY 2023-24
- O.P.No.9 of 2020 – Capital Investment Plan for FY 2019-20 to FY 2023-24

1.2.2 SCCL filed I.A.No.2 of 2020 in O.P.No.5 of 2019 with the following prayers:

"SCCL prays to the Hon'ble Commission that it may be pleased to grant the following as interim arrangement:

a) Allow to raise energy bills based on average annual fixed charges as claimed before it for the control period 2019-24, pending determination of ARR and tariff for 2019-24.

b) Provide in-principle approval for urgent capital investment needs as detailed in the application.

c) Pass such further orders, as the hon'ble commission may deem it appropriate and proper in circumstances of the case."

1.2.3 The Commission vide its Order dated 08.02.2020 in the above stated IA ruled as under:

15. Therefore, the Commission deems it fit to accord in-principle approval for undertaking the above stated works for complying with the revised emission norms. It is made amply clear that this in-principle approval should not be construed as the final approval of the Commission on the technology or the capital expenditure or the impact of the same on the tariff proposed by the applicant / petitioner. The Commission shall carry out the due diligence of the same and would take a view in the final order to be issued in the original petition.

16. For the reasons stated and the detailed discussion rendered above, we deem it fit to allow this application and direct the respondents to pay the tariff as applicable for FY 2018-19 for the energy supplied by the applicant / petitioner from 01.04.2019 till the disposal of the main petition."

1.2.4 The Petitioner, as directed by the Commission, published for information of all stakeholders a notice in two (2) English newspapers, two (2) Telugu newspapers and one (1) Urdu newspaper on 25.02.2020.

1.2.5 Overview of Stakeholders' Consultation Process:

1.2.5.1 The filings have been made available by the Petitioner along with supporting material to the public at large including all stakeholders. The filings and supporting material were also hosted on the websites of the Commission as well as the Petitioner.

1.2.5.2 It was also notified in the public notice (Annexure-1) that, objections/ suggestions on the filings may be filed before the Commission by 12.03.2020 which was later extended upto 18.04.2020. In response to the public notice, objections/ suggestions/ comments were received from three (3) stakeholders (Annexure-2) by the Commission in writing no further objections/suggestions were received during the Public Hearing. The additional objections/ suggestions submitted pursuant to the Commission's directions during the Public Hearing have also been considered by the Commission. The list of persons who attended the Public Hearing on 23.07.2020 is enclosed at Annexure-3.

1.2.5.3 The Petitioner was directed to give the reply to the stakeholders in writing by 19.05.2020 by sending the same to the respective stakeholder with a copy to the Commission. The replies were also posted on the website of the Commission.

1.2.5.4 The Public Hearing was initially scheduled to be held on 18.03.2020 which was postponed to 08.04.2020. However, due to the situation arising out of pandemic COVID-19, the Hearing could not be taken up on 08.04.2020. Although the imposition of lockdown by the Government has eased but advisory has been issued for not conducting any public meeting resulting in large gathering. Therefore, the Commission, vide the Public Notice dated 17.07.2020, scheduled the Hearing by video conference on 23.07.2020. The Commission has conducted the virtual Public Hearing on 23.07.2020 in the attendance of the Petitioner, the Respondents and the other interested stakeholders. During the Public Hearing, the Petitioner made a brief submission on its filings and then the Commission heard the Respondents and other stakeholders desiring to be heard. At the end, the Petitioner responded on the issues raised by the objectors and on directions of the Commission, filed a written submission regarding the same.

1.3 DATAGAPS AND PETITIONER'S RESPONSES

1.3.1 During scrutiny, the filings of the Petitioner was found to be deficient in certain aspects and therefore, additional information was sought. The Commission has considered the original filings and additional information submitted by the Petitioner.

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CHAPTER 2
SUMMARY OF FILINGS

2.1 PETITIONER'S SUBMISSIONS

2.1.1 The Petitioner has made the following submissions in their original filings and the additional submissions:

- True-up for FY 2016-17 to FY 2018-19
- Business Plan for FY 2019-20 to FY 2023-24
- MYT for FY 2019-20 to FY 2023-24

2.1.2 The summary of each of the submissions is detailed below:

2.2 TRUE-UP FOR FY 2016-17 TO FY 2018-19

2.2.1 The capital cost claimed by SCCL for true-up for FY 2016-17 to FY 2018-19 is as shown in the Table below:

Table 1: Capital cost claimed by SCCL for FY 2016-17 to FY 2018-19

(Rs. Crore)

Particulars	Legend	As on COD of Unit 2	From COD Unit 2 to 31.03.2017	FY 2017-18	FY 2018-19
Opening capital cost (gross)		7558.63			
Less: undischarged liability		448.54			
Opening capital cost (net)	A	7110.09	7114.82	7210.44	7611.94
Additional capitalisation	B	0.00	72.53	191.20	757.86
Liability discharged	C	4.73	23.09	210.30	91.20
Closing capital cost	E=A+B+C	7114.82	7210.44	7611.94	8461.00

2.2.2 The AFC claimed by SCCL for true-up for FY 2016-17 to FY 2018-19 is as shown in the Table below:

Table 2: AFC claimed by SCCL for FY 2016-17 to FY 2018-19

(Rs. Crore)

Particulars	From COD of Unit 1 till COD of Unit 2	From COD of Unit 2 till 31.03.2017	FY 2017-18	FY 2018-19
Return on Equity	40.92	139.21	438.11	475.08
Interest on Loan	56.26	169.75	490.99	487.24
Depreciation	35.89	122.11	383.35	413.74
Interest on Working Capital	10.26	35.39	108.75	110.68
O&M expenses	18.19	64.19	207.60	220.56
Annual Fixed Charges	**161.53**	**530.64**	**1628.80**	**1707.30**

2.3 BUSINESS PLAN FOR FY 2019-20 TO FY 2023-24

2.3.1 SCCL submitted the Business Plan constituting the following:

i. Generation Planning and forecasts

ii. Capital Investment Plan
iii. Future performance targets
iv. Proposed efficiency improvement measures
v. Compliance status of environmental norms
vi. Saving in operating costs
vii. Financial statements for the Control Period duration
viii. Other new measures for generation business

2.3.2 The norms of operation proposed for the Control Period from FY 2019-20 to FY 2023-24 are as under:

Table 3: Norms of operation proposed by SCCL for Control Period from FY 2019-20 to FY 2023-24

Parameter	Unit	Proposed
Normative Annual Plant Availability Factor (NAPAF)	%	80%
Normative Annual PLF	%	80%
Auxiliary Consumption	%	7.00%; Additional 1.5% for FGD from FY 2021-22 onwards
Gross Station Heat Rate	kcal/kWh	2400
Secondary Fuel Oil Consumption	ml/kWh	2.00
Transit Loss	%	0.80%

2.3.3 The generation forecast for the Control Period from FY 2019-20 to FY 2023-24 is as under:

Table 4: Generation forecast submitted by SCCL

Financial Year	Gross Generation	Auxiliary Consumption	Net Generation
	MU	%	MU
2019-20	9601.78	7.00%	8929.65
2020-21	9575.54	7.00%	8905.26
2021-22	9575.54	7.33%	8873.45
2022-23	9575.54	8.50%	8761.62
2023-24	9601.78	8.50%	8785.63

2.3.4 SCCL submitted the month wise generation forecast for each year of the Control Period from FY 2019-20 to FY 2023-24.

2.3.5 The summary of Capital Investment Plan and capitalisation plan proposed for the Control Period from FY 2019-20 to FY 2023-24 is as under:

Table 5: Capital Investment Plan and capitalisation plan submitted by SCCL

(Rs. Crore)

Particulars	Capital Investment	Capitalisation					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total

Particulars	Capital Investment	Capitalisation					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
FGD system	645.32	0.00	0.00	0.00	645.32	0.00	**645.32**
In-furnace modifications for NOx compliance	38.00	0.00	0.00	19.00	19.00	0.00	**38.00**
O&M modules	301.18	0.00	153.10	82.96	65.12	0.00	**301.18**
Railway works	284.04	0.00	42.94	161.50	79.60	0.00	**284.04**
Erection works in main plant	55.89	0.00	26.91	20.98	8.00	0.00	**55.89**
Township civil works	24.15	0.00	7.81	10.20	6.14	0.00	**24.15**
Total	**1348.57**	**0.00**	**230.75**	**294.64**	**823.18**	**0.00**	**1348.57**

2.4 MYT FOR FY 2019-20 TO FY 2023-24

2.4.1 The AFC claimed by SCCL for the Control Period from FY 2019-20 to FY 2023-24 is as shown in the Table below:

Table 6: AFC claimed by SCCL for FY 2019-20 to FY 2023-24

(Rs. Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Depreciation	437.35	443.02	456.87	486.19	507.48
Advance Against Depreciation	0.00	0.00	0.00	12.84	0.00
Interest on Loan	484.39	447.73	420.59	412.40	391.11
Interest on Working Capital	96.92	103.86	112.23	123.21	135.06
Interest on Working Capital for FGD system	0.00	0.00	0.40	0.40	0.40
O&M expenses	229.01	242.51	256.37	277.84	291.40
O&M expenses for FGD system	0.00	0.00	12.91	12.91	12.91
O&M expenses for NOx mitigation system	0.00	0.38	0.76	0.76	0.76
Return on Equity	501.51	508.35	523.92	557.05	581.45
Less: Non-tariff income	0.37	0.37	0.37	0.37	0.37
Annual Fixed Charges	**1748.82**	**1745.49**	**1783.69**	**1883.22**	**1920.19**

2.4.2 The ECR claimed by SCCL for the Control Period from FY 2019-20 to FY 2023-24 is as shown in the Table below:

Table 7: ECR claimed by SCCL for FY 2019-20 to FY 2023-24

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Auxiliary Consumption	%	7.00%	7.00%	7.00%	7.33%	8.50%
Gross Station Heat Rate	kcal/kWh	2400.00	2400.00	2400.00	2400.00	2400.00
Secondary Fuel oil consumption	ml/kWh	2.00	2.00	2.00	2.00	2.00
Calorific Value of Secondary Fuel	kcal/ml	9.99	9.99	9.99	9.99	9.99
Landed Price of Secondary Fuel	Rs./ml	0.05	0.06	0.07	0.08	0.09
Wt. Avg. Gross Calorific Value of Coal	kcal/kg	3866.17	3866.17	3866.17	3866.17	3866.17
Landed Price of Coal	Rs./kg	4.18	4.64	5.15	5.72	6.35
Specific Coal Consumption	kg/kWh	0.62	0.62	0.62	0.62	0.62
ECR	**Rs./kWh**	**2.884**	**3.205**	**3.563**	**3.975**	**4.476**

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CHAPTER 3
ISSUES RAISED BY STAKEHOLDERS, RESPONSES OF PETITIONER AND COMMISSION'S VIEWS

3.1 OBJECTIONS/SUGGESTIONS/COMMENTS MADE ON FILINGS

3.1.1 Three (3) stakeholders have filed objections/ suggestions/ comments on the Petitions for approval of true-up for FY 2016-17 to FY 2018-19, Business Plan, Capital Investment Plan and MYT for FY 2019-20 to FY 2023-24. The Petitioner has filed replies on the objections/ suggestions/ comments received from the stakeholders. For the sake of clarity, the objections/suggestions/ comments raised by the stakeholders and responses of the Petitioner have been consolidated and summarised issue-wise. The Commission has concluded all the objections/ suggestions/ comments of the stakeholders made in writing and the responses to them by the Petitioner.

3.2 CAPITAL COST

Stakeholders' submissions

3.2.1 The Commission, in the Tariff Order had approved the capital cost for the project. SCCL has filed an Appeal before the Hon'ble APTEL against the Commission's Tariff Order wherein it had prayed for set aside of the Order. SCCL has claimed the capital cost of Rs.8780.00 Crore as against the approved cost of Rs.7575.26 Crore. SCCL has claimed the disallowed capital cost in its true-up claims making the Tariff Order infructuous. As there is no stay on the Commission's Tariff Order, the true-up has to be based on the Commission's Tariff Order and the final capital cost cannot be higher than the total cost of Rs.7575.26 Crore approved by the Commission.

3.2.2 The developers of the generating stations have to develop their projects as per the terms and conditions of the PPAs executed with the Distribution Licensees and Regulations of the Commission. The power purchase by the DISCOMs is governed by the approved PPAs executed with the generators. After the approval of capital cost of a generating station for a Control Period by the Commission, the revision of the same does not arise. The generation business is not a licensed activity like the distribution business. Unlike the true-up allowed for the DISCOMs on account of uncontrollable factors, any additional expenditure incurred for reasons other than the terms and conditions of the PPA has to be treated as business risk. It is for this reason that the generators are allowed higher rate of RoE.

3.2.3 The capital cost including additional capitalisation has to be allowed in accordance with the provisions of the Regulations. The reasons for delay in project execution do not fall under the ambit of force majeure. The additional capitalisation beyond one year from COD of Unit 2 is not allowable. Notwithstanding the audited accounts, the Commission has to decide on the permissible capital cost based on prudence check of actual capital cost. The additional capitalisation projected for the Control Period from FY 2019-20 to FY 2023-24 imposes avoidable burden on the DISCOMs without any accountability on part of SCCL. The regulatory provisions of allowing capital investment plan and business plan would entail condoning the delay in project execution due to the failures of commission and omission. The Commission may not allow the capital investment plan and business plan for the Control Period from FY 2019-20 to FY 2023-24 by taking deviation from the Regulations and recording the reasons for the same in writing. The Regulations may be amended by deleting the provisions regarding the Business Plan and Capital Investment Plan.

3.2.4 The Commission had approved the BTG cost of Rs.4463.44 Crore after deducting the undischarged liabilities from the total cost of Rs.4878 Crore. As against the same, SCCL has claimed the BTG cost of Rs.4849.48 Crore claiming the discharge of liabilities which need to be examined.

3.2.5 The Commission has approved the total cost of railway siding as Rs.80 Crore. The Commission noted that the railway siding works have been undertaken on nomination basis and ruled that any shortfall in funds from the Coal Controller shall be dealt with in true-up of additional capitalisation. SCCL has claimed the railway siding cost of Rs.322.57 Crore and stated that the grants to the tune of Rs.162.22 Crore has to be received from Coal Conservation & Development Advisory Committee (CCDAC). The amount of grants has to be deducted from railway siding cost claimed by SCCL.

3.2.6 SCCL has claimed the establishment cost of Rs.106.53 Crore whereas the same has been claimed as Rs.70 Crore in O.P.No.9 of 2016. The revised claim of SCCL need to be examined.

3.2.7 SCCL has not deducted the liquidated damages amounting to Rs.27.73 Crore and penalty amounting to Rs.0.94 Crore levied on M/s BHEL. These amounts have to be deducted from the capital cost. The failure of SCCL to recover the liquidated damages cannot be a valid ground for not considering the same in the approval of capital cost.

3.2.8 SCCL has claimed the hard cost of Rs.7315.88 Crore as against the approved cost of Rs.6691.63 Crore.

3.2.9 SCCL has claimed the Interest During Construction (IDC) of Rs.1266.34 Crore as against Rs.883.63 Crore approved by the Commission. The IDC has to be considered as Rs.883.63 Crore as approved by the Commission.

3.2.10 The Commission had ruled that the finance charges cannot be considered as part of capital cost and hence the same principle has to be applied for the Control Period from FY 2019-20 to FY 2023-24.

3.2.11 SCCL has claimed Corporate Social Responsibility (CSR) expenditure of Rs.30 Crore for the Control Period from FY 2019-20 to FY 2023-24. This expenditure is not allowable as the CSR expenditure has to be met from the profits. The stakeholder has referred to Hon'ble APTEL's judgment dated 02.06.2016 in Appeal No.174 of 2015 in this regard.

3.2.12 SCCL has proposed to set up the FGD at a cost of Rs.645.32 Crore which works out to Rs.0.54 Crore per MW. NTPC has awarded for four power plants with aggregate capacity of 4460 MW for supply and installation of FGD system to GE Power at a cost of Rs.1783 Crore which is equivalent to Rs.0.40 Crore per MW. Sembcorp Energy has also initiated bidding for setting up of FGD system worth Rs.1000 Crore for its power plants with a total capacity of 2640 MW which is equivalent to Rs.0.38 Crore per MW. in view of the same, the FGD cost may be limited to Rs.450 Crore for SCCL.

3.2.13 The capital investment for complying with the Ministry of Environment, Forest & Climate Change (MoEF&CC) notification dated 07.12.2015 was not claimed in O.P.No.9 of 2016. The Commission in its Order dated 08.02.2020 accorded in-principle approval for the works required for complying with the revised emission norms. As the capital expenditure claimed is after the cut-off date and beyond the original scope of work, the Commission's in-principle approval may be revisited. Further, the Hon'ble Supreme Court in its Order dated 05.08.2019 in W.P.(Civil) No.13029/1985 agreed to the principle of consensus reached between Environment Pollution Control Authority (EPCA), Ministry of Power (MoP), Central Electricity Authority (CEA), M/s NTPC Ltd., MoEF&CC to review the NOx emission norm from 300 mg/Nm^3 to 450 mg/Nm^3 for coal based TPPs. As the NOx emission levels are within the limit of 450 mg/Nm^3, the Commission may consider this relaxation and the capital investment may be reduced accordingly.

3.2.14 As per the environmental clearance dated 27.12.2010, the project was required to comply with the stipulated specific and general conditions/directions, inter alia, to make specific provision of space for installation of FGD equipment in future. The environmental clearance mandated for allocation of separate funds for implementation of environmental protection measures, and such funds, which shall be part of project cost, shall not be diverted for other purposes apart from reporting the year-wise expenditure to MoEF. Non-inclusion of the capital expenditure towards FGD in the original capital cost estimates amounts to violation of the stipulation in the environmental clearance.

3.2.15 The project was to be equipped with continuous online monitoring equipment for monitoring the pollutant levels of SOx, NOx, Particulate Matter (PM) and mercury. The status of compliance to the environmental clearance conditions was to be uploaded on the website of MoEF periodically, and to be sent to Regional Office of MoEF, the respective zonal office of Central Pollution Control Board (CPCB), and State Pollution Control Board (SPCB).

3.2.16 MoP, in its letter no. 23/22/2018-R&R dated 30.05.2018 clarified that MoEF&CC's notification requiring compliance to Environment Protection Amendment Rules, 2015 dated 07.12.2015 is of the nature of Change in Law event except for TPPs where such requirement of pollution control system was mandated under the environmental clearance or envisaged otherwise before the notification of amendment rules. In view of the same, since FGD installation was envisaged in the environmental clearance granted for the project, the claim for approval of capital investment for FGD system is not allowable. In a similar case of M/s Talwandi Sabo Power Limited (TSPL) whose environmental clearance is identical to that of Singareni TPP, the Punjab State Electricity Regulatory Commission (PSERC) in its Order dated 21.12.2018 disallowed TSPL's claim for capital expenditure towards FGD under Change in Law. The Judgment of Hon'ble APTEL dated 21.01.2013 in Appeal No.105 of 2011 may also be referred in this regard wherein the Hon'ble APTEL upheld the disallowance of the generator's claim to install FGD under Change in Law, after examining the Environmental Clearance for the project.

3.2.17 As per Article 8 of the PPA, the notice of Change in Law was to be issued to the DISCOMs and both the parties shall meet and endeavour to agree to an amendment to the PPA to pass on the impact of such an event. The DISCOMs have not received any such Change in Law notice claiming the capital expenditure towards FGD based on revised emission norms.

3.2.18 The environmental clearance mandated that the sulphur and ash content in coal shall not exceed 0.5% and 34% respectively at any given time and in case of variation in coal quality at any point of time, fresh reference was to be made to MoEF for amendments to the environmental clearance condition. If the sulphur content in coal is less than the prescribed limit, SOx emissions would be greatly reduced and the capital investment towards SOx mitigation measures would also reduce. The proposed design of FGD indicates that the sulphur content in coal would be as high as 0.69%, which is higher than the stipulation in the environmental clearance. The impact of violation of the stipulation of sulphur content in coal may not be passed on the DISCOMs.

3.2.19 The capital investment for the works which beyond the original scope of work and after the cut-off date may not be allowed as per the provisions of the Regulation No.1 of 2019. The proposed capital investment plan may be disallowed as the same lacks merit.

Petitioner's replies

3.2.20 SCCL has not claimed the disallowed capital cost, which has been challenged in the Appeal before the Hon'ble APTEL, in its true-up claims. The Commission had adopted the CERC (Terms and Conditions of Tariff) Regulations, 2014 for tariff determination for FY 2016-17 to FY 2018-19. The Commission had approved the capital cost based on the provisional additional capitalisation submitted by SCCL. The audited additional capitalisation till FY 2018-19 has been submitted for true-up in accordance with the Regulations. Further, the undischarged liabilities which had not been considered by the Commission in the Tariff Order have been claimed for true-up on discharge of liabilities. In the Tariff Order, the Commission had ruled that the undischarged liabilities would be considered in tariff determination for the next Control Period i.e., from FY 2019-20 to FY 2023-24.

3.2.21 The PPA is generally executed much earlier to COD of the project and the project cost at that time would only be an estimate based on the awarded contracts. The closure of contracts requires adequate time even after cut-off date. The PPA provides for a general clause for determination of final capital cost by the Commission after prudence check. The CERC (Terms and Conditions of Tariff) Regulations, 2014 provide for additional capitalisation before and after cut-off date. The Regulation No.1 of 2019 was issued by the Commission after due regulatory process by taking into consideration the stakeholders' submissions including that of SCCL. The capital investment plan has been submitted in accordance with Clause 7 of the Regulation No.1 of 2019 along with detailed reasoning including priority of the schemes, cost benefit analysis and financing plan and the same may be allowed after prudence check. The generation tariff for the Control Period from FY 2019-20 to FY 2023-24 may be determined in accordance with the provisions of the Regulation No.1 of 2019.

3.2.22 The stakeholder's contention that the railway siding works were awarded on nomination basis is incorrect. All the railway siding works, except the project management consultancy, were awarded through competitive bidding. The railway siding works awarded through competitive bidding are as follows:

i. Earth work formation 0 km to 8.5 km.
ii. Earth work formation 8.5 km to 21.175 km.
iii. Construction of major bridge on Rasulpalli vagu.

iv. 9 nos. Road Under Bridges (RUBs)

v. Supply and stacking of ballast

vi. Supply and stacking of Pre-Stressed Concrete (PSC) sleepers

vii. Supply of payment way materials, track lining etc.

3.2.23 The expenditure incurred towards railway siding works upto 31.03.2019 is Rs.322.56 Crore as against the estimated cost of Rs.276 Crore i.e., increase by Rs.57.43 Crore. This increase has been due to the following reasons:

- In compliance to the revised guidelines from Indian Railways, the top width of the embankment was increased from 6.85 m to 7.85 m and the bottom width was increased from 9.25 m to 10.25 m. Rock requiring blasting had increased due to these changes.
- Further, the tracks in the yards are spaced at 12 m (instead of 6 m) and the requirement of earth work quantities have increased due to this change.
- National Highways Authority of India (NHAI) had insisted for construction of RUBs on National Highway (NH) 63 with 2m x 24.20m span whereas the RUBs were originally planned to be constructed with 2m x 18.30m span.
- One additional bridge of 2m x 12.20m span was included during tendering stage for movement of dumpers at SRP-OCP.
- Railways had revised the depth of piles from 12m to 25m for the bridge on Rasulpalli vagu.
- Implementation of Goods and Services Tax (GST) w.e.f. 01.07.2017, revised royalty charges, District Mineral Foundation Trust (DMFT), State Mineral Exploration Trust (SMET), PVC etc.

3.2.24 The grant received from CCDAC is to the tune of Rs.84.19 Crore as against the claim of Rs.162.22 Crore till 31.03.2019. In accordance with Regulation 9.6(d) of the CERC (Terms and Conditions of Tariff) Regulations, 2014, the amount of grant received can only be deducted from capital cost.

3.2.25 Out of the total expenditure of Rs.322.57 Crore incurred upto 31.03.2019, the CCDAC grant is to the extent of Rs.162.22 Crore. Therefore, the cost excluding CCDAC grant works out to Rs.160.35 Crore as against the Rs.80 Crore approved by the Commission. The Commission, in the Tariff Order observed that the expenditure of railway siding shall be considered during true-up. Thus, the additional expenditure of Rs.80.35 Crore has to be considered in true-up for FY 2016-17 to FY 2018-19.

3.2.26 The project management consultancy for tendering and execution of railway siding works has been awarded to M/s RITES Ltd. on nomination basis. The agreement in this respect was made on similar lines of the Memorandum of Understanding (MoU) entered by M/s Coal India Limited (CIL) and M/s RITES Ltd. for railway siding works. M/s RITES Ltd has charged 0.02% lower fees to SCCL in comparison to that charged to M/s CIL.

3.2.27 In O.P.No.9 of 2016, the establishment cost and contingencies had been claimed as Rs.70 Crore and Rs.47.52 Crore respectively. These have been revised to establishment cost and contingencies of Rs.94 Crore and Rs.5 Crore respectively based on the fact that several revenue nature expenditures related to establishments were met from contingency. As against the same, the establishment cost has been claimed as Rs.106.53 Crore.

3.2.28 The Commission had not condoned the delay on account of certain reasons like non-availability of sand, state bifurcation movement, delay in construction of water pipeline. In particular, the delay in various contracts was due to the non-availability of sand for construction activities. The construction work had initially suffered due to closure of government leased sand quarries. Subsequently, after opening of Telangana State Mineral Development Corporation (TSMDC), sand was issued through a cumbersome and time-consuming process. Further, delay occurred due shortage of labour on account of grounding of several government projects. The Commission has the powers to reconsider these issues and approve IDC.

3.2.29 The Commission had disallowed IDC to the tune of Rs.380.71 Crore and therefore, the liquidated damages, if imposed on the contractors have to be set off against the disallowance in IDC as per the Hon’ble APTEL’s judgment in Appeal No.72 of 2010.

3.2.30 As per circular no. 35/2014 of Ministry of Corporate Affairs, GoI, financing charges constitute a part of additional capitalisation only if there is delay in commencement of commercial production after the plant is otherwise ready. Accordingly, the financing charges related to additional capitalisation are to be considered as per the relevant accounting standard. The additional capitalisation towards works proposed to be capitalised during the Control Period from FY 2019-20 to FY 2023-24 include corresponding IDC and financing charges as per the accounting standards.

3.2.31 SCCL has proposed the capital investment plan amounting to Rs.301.18 Crore towards procurement of O&M module. Most of the items proposed under the O&M module have to procured for complying with CEA advisory dated 07.02.2020.

3.2.32 The Commission, in the Tariff Order, had approved the mandatory capital expenditure under MoEF clearance of Rs.9.45 Crore upto COD of Unit 2 and Rs.12.65 Crore under additional capitalisation, the same being pursuant to the Environmental Clearance issued for the project. This expenditure is mandated to be incurred irrespective of the profits earned. However, based on the experience of CSR activities undertaken in 34 villages around the project, the CSR expenditure was increased to Rs.6 Crore per annum totalling to Rs.30 Crore for the Control Period from FY 2019-20 to FY 2023-24. The Hon'ble APTEL's judgment referred to by the stakeholder is not applicable as regulatory return earned by the utility in that case was more than sufficient to consider CSR expenditure from the profits claimed. Therefore, the claim of CSR expenditure may be approved.

3.2.33 SCCL has claimed the capital investment plan amounting to Rs.1195.57 Crore which was subsequently revised to Rs.1348.57 Crore on addition of 2 nos. wagon tipplers. Out of the total investment plan of Rs.1348.57 Crore, the expenditure of Rs.1230.10 Crore is towards the top priority items shown in the Table below:

Table 8: Top priority items in the proposed capital investment plan for FY 2019-20 to FY 2023-24

Sl. No.	Particulars	Estimated capital expenditure (Rs. Crore)	Provisions in Regulation No.1 of 2019	Remarks
1	FGD system	645.32	7.19.1(l) and 7.19.1(e)	In-principle approval given vide Order dtd. 08.02.2020
2	In-furnace modifications for NOx mitigation	38		
3	O&M modules	301.18	7.19.1(c) and 7.19.1(k)	Proposed in line with CEA advisory
4	OHE works	45	7.19.1(e)	Proposed as per the mandate of Ministry of Railways
5	S&T works including civil works	47.6		
6	2 Nos. wagon tipplers and laying track lines including	153	7.19.1(h)	Unloading facility for unloading BOXN wagons required which are used by Indian Railways for

Sl. No.	Particulars	Estimated capital expenditure (Rs. Crore)	Provisions in Regulation No.1 of 2019	Remarks
	consultancy service to NTPC			long distance coal transportation
	Total	**1230.1**		

3.2.34 The FGD cost, excluding GST and IDC, as per the DPR works out to Rs.492 Crore which is equivalent to Rs.0.41 Crore per MW and is comparable to the citations of the stakeholder.

3.2.35 Pursuant to the MoEF&CC notification dated 07.12.2015, the following events unfolded:

- The Central Pollution Control Board (CPCB) had issued directions on 11.12.2017 to TPPs to ensure compliance as per revised plan submitted by MoP.
- In view of technical challenges in implementing new technologies like FGD, revised dates for compliance of new emission standards was prepared by CEA which was forwarded to MoEF&CC on 13.10.2017.

3.2.36 The developers could not decide on the required technology or estimate the expenditure required for compliance to revised emission norms without CEA's advisory. The CEA had issued the technical specification for erection/retro fitting of FGD system in December 2017 and modified the same in October 2018. Therefore, the stakeholder's contention regarding the non-inclusion of the capital expenditure for complying with revised emission norms in O.P.No.9 of 2016 lacks merit. The stakeholders cannot attempt to reopen the concluded issue of in-principle approval accorded by the Commission in its Order dated 08.02.2020. The award of work under open enquiry is in process for installation of FGD and action has also been initiated for installation of low NOx burner in response to the show cause notice of CPCB. Therefore, the stakeholder's contention lacks merit and deserves to be rejected. CPCB is imposing penalty of Rs.18 lakh per month per unit for non-compliance and the same may be required to be borne by the beneficiaries if the capital investment for complying with revised emission norms is not approved.

3.2.37 The design value of NOx emission for the project is 750 mg/Nm^3. On perusal of the Supreme Court's Order referred by the stakeholder, it is observed that the stated minutes envisage achievement of NOx emission norm of 450 mg/Nm^3 by way of combustion modification. The capital expenditure proposed by SCCL is for combustion modification only and is supported by the quotation from M/s BHEL. The proposal for increasing the NOx emission norm from 300 mg/Nm^3 to 450 mg/Nm^3 was to be presented to MoEF&CC and MoP for final decision and finality has not been achieved on the subject proposal. The NOx emission level varies based on operational conditions of the units (load and mill combination). As the design value is 750 mg/Nm^3, there is good amount of risk involved in achieving the level of 450 mg/Nm^3 due to different load and mill combinations. Accordingly, the investment for NOx mitigation is a must to control the NOx emission within the stipulated limit.

3.2.38 As per Article 10 of the PPA, the duration of agreement is 25 years and this has to be construed from COD of last unit or beyond 25 years if mutually agreed. The stakeholder has cited the stipulation in the environmental clearance regarding the provision for installation of FGD for future use. The installation of FGD was not mandatory at that time but the subsequent amendments made it mandatory. As the duration of the PPA can be 25 years or beyond 25 years and FGD has to be installed in future, which can also be within 25 years or beyond 25 years. Therefore, the usage of the word ‘future’ in the environmental clearance is not definitive, vague, uncertain and unclear. It only hints about a legislative change that may happen with absolutely no clue about the time when such change will occur. Therefore, there was the probability that FGD could have been installed in future but ascertaining the timing of such event was not feasible. The interpretation of provision given by the stakeholder as provision of space and establishment that this provision relates to a liability of uncertain timing or amount is refuted.

3.2.39 The environmental clearance stipulates earmarking funds for environmental impact measures and such fund has to be used only for environmental protection measures under implementation. A provision which is an uncertain expenditure cannot be a part of the fund as (i) an uncertain liability cannot be measured with reasonable reliability, (ii) the fund specifically requires item wise break-up, (iii) the fund was to be used to projects under implementation and (iv) the fund never envisaged future implementation of environmental measures. A separate fund to the tune of Rs.442. 30 Crore was allocated for environmental measures in the DPR which included electrostatic precipitators, greenbelt development, dry ash disposal system, bottom ash disposal system, effluent treatment plant etc. Such fund did not include the expenditure required for complying with the revised emission norms. The cost of FGD could not be ascertained at the time of DPR preparation and hence the funds could not be set aside.

3.2.40 The environmental conditions as per the environmental clearance are being aptly fulfilled by the project.

3.2.41 MoP’s letter dated 30.05.2018 was issued to CERC in exercise of the powers conferred u/s 107 of the Electricity Act, 2003. CERC shall be guided by the Central Government directions issued u/s 107 and such directions can be binding upon them when the matter involves public interest. The said letter has consequence upon SERC and is irrelevant.

3.2.42 The stakeholder’s reference to the case laws is not relevant to the present case as the tariff in that case was determined based on competitive bidding u/s 63 of the Electricity Act, 2003. The tariffs in such cases were discovered based on bids submitted and a future enhancement of tariff in those cases is not permissible if not covered by Change in Law events in the bidding guidelines. The Distribution Licensees in those cases were not concerned to any additional investments made by the generators. The Petition in one of that case was filed u/s 86(1)(b) which empowers SERC to regulate the power purchase process which is different from tariff determination u/s 86(1)(a). Section 86(1)(b) does not empower SERC to determine/re-determine tariff. When the Statute/Regulation notified by the SERC provides adequate provision for adjudication/determination of issues, there is no burden of law to the regulator to look beyond its own Regulation even for any reference. The Judgments of Hon’ble APTEL in Appeal Nos. 93 of 2017 and 125 of 2017 dated 29.01.2020 and 09.05.2019 respectively relating to Section 62 of the Electricity Act, 2003 are relevant to the present case. The Regulation No.1 of 2019 has provisions related to environmental compliance. Therefore, the contention of the stakeholder is misconceived and not required to be considered by the Commission.

3.2.43 The tariff for the electricity supplied from the project shall be determined by the Commission. Accordingly, SCCL has filed the business plan, capital investment plan and MYT for the Control Period from FY 2019-20 to FY 2023-24 before the Commission and the copies of the same have been emailed to the Respondents. Hence, the contention of no information to the beneficiaries lacks merit. SCCL is not in a position to decide whether the new environmental norms are to be considered as Change in Law event as provided in the PPA or not.

3.2.44 The stakeholder has quoted the sulphur content in worst coal as indicated in the DPR prepared for FGD and contended that such data is in violation of stipulation of MoEF. In the earlier pollution control regime, SOx control was planned to be achieved at chimney outlet by ensuring sulphur content in input coal to be less than 0.5%. With the SO_2 emission norm of 200 mg/Nm^3 in the Notification dated 07.12.2015, MoEF has shifted the SOx control philosophy from input based (indirect control) to output based (direct control) making the sulphur content regulation in the input coal superfluous and non-essential environmental condition. The sulphur content in coal not exceeding 0.5% could become a necessary condition had SCCL not been obligated to control SO_2 emission at chimney outlet within 200 mg/Nm^3 in the Notification dated 07.12.2015. The specifications and detailed design of FGD system will be finalised as per the standard technical specifications of CEA and in line with the similar system adopted by NTPC Limited in its plants with similar configuration. Therefore, the contention of the stakeholder is misconceived.

3.2.45 Most of the items proposed to be procured under the head of O&M module are in fulfilment of the CEA advisory dated 07.02.2020. Further, as per the Judgments of Hon’ble APTEL in Appeal Nos. 93 of 2017 and 125 of 2017 dated 29.01.2020 and 09.05.2019 respectively the requirement of O&M modules fall under Change in Law.

3.2.46 Clause 7.19 of the Regulation No.1 of 2019 do not limit the additional capitalisation beyond the cut-off date and the contention of the stakeholders is incorrect. Further, most of the items claimed in the capital investment plan are due to effect of change of law, contemplated under Article 8.1 of the PPA and became mandatory by the government authorities. The Judgment of Hon’ble APTEL in Appeal No.93 and 125 of 2017 may be referred to in this regard.

Commission's View

3.2.47 The Commission in the Tariff Order had approved the final capital cost as on COD of the project and the provisional additional capitalisation upto FY 2018-19. SCCL claimed the audited additional capitalisation in its true-up claim for the Control Period from FY 2016-17 to FY 2018-19. The Commission has approved the additional capitalisation for the Control Period from FY 2016-17 to FY 2018-19 as detailed in Chapter 4.

3.2.48 The Commission has approved the Capital Investment Plan for the Control Period from FY 2019-20 to FY 2023-24 in accordance with the provisions of the Regulation No.1 of 2019 as detailed in Chapter 5.

3.3 ANNUAL FIXED CHARGES (AFC)

Stakeholders' submissions

3.3.1 In light of the pending Appeal before the Hon'ble APTEL, the approval of true-up for FY 2016-17 to FY 2018-19 and MYT for FY 2019-20 to FY 2023-24 based on the capital cost claimed by SCCL does not arise.

3.3.2 The total Annual Fixed Charges (AFC) claimed by SCCL for the Control Period from FY 2016-17 to FY 2018-19 is higher than the AFC approved by the Commission by Rs.445.85 Crore. This is on account of higher loan and equity amounts considered by SCCL corresponding to higher capital cost claim. The interest rate considered by SCCL is also higher than that approved by the Commission.

3.3.3 SCCL submitted that $1/3^{rd}$ of the savings accrued on account of reduction in interest rates on long-term loans would be retained by it. As the consumers have borne the interest on loans availed by SCCL, the impact of reduction in interest rates has to be allowed as pass through to the consumers to reduce the tariff burden. The sharing as proposed by SCCL is not allowable as the Commission had disallowed the same in tariff determination.

3.3.4 The provisions of the Regulations regarding the interest rates are not in line with the current market trends. The interest rates for long-term loans and working capital have to be considered in light of the reducing interest rates and not as claimed by SCCL. SCCL has to be directed to re-negotiate with the lending agencies and to swap the loan amounts, if possible, to avail the benefit of lower interest rates. The rate of interest may be limited to 9%.

3.3.5 SCCL has claimed Advance Against Depreciation (AAD) for meeting the loan repayment obligation stating that the benefit of reduced interest on loan would accrue to the end consumers. On the contrary, AAD leads to front loading of tariff. Depreciation has to be allowed considering the rates specified in the Tariff Regulations and AAD may not be allowed.

3.3.6 SCCL has claimed Return on Equity (RoE) considering the base rate of 15.5% and effective tax rate of 21.55%. In view of the reducing interest rates, reduction in the rate of RoE may be considered as the taxes are being allowed as pass through. The rate of RoE of 15.5% was adopted at a time when the interest rate was 12%. As the rate of RoE is pegged at 2% higher than interest rate and the interest rate has reduced below 9%, the rate of RoE may be considered as 12%.

3.3.7 As regards income tax rate for the Control Period from FY 2016-17 to FY 2018-19, SCCL submitted as under:

- There had been net book loss for FY 2016-17 at company level and hence no Minimum Alternate Tax (MAT) was paid. However, due to clubbing of businesses of power generation and coal mining, it has to be construed that SCCL had MAT liability on the profits from power generation business, which was adjusted against the loss from coal mining business.
- The MAT paid for FY 2017-18 was Rs.424.21 Crore. However, MAT computed on standalone book profits of Rs.580.15 Crore from power generation business works out to Rs.123.81 Crore considering the MAT rate of 21.34%.
- The MAT paid for FY 2018-19 was Rs.628.28 Crore. However, MAT computed on standalone book profits of Rs.700.73 Crore from power generation business works out to Rs.151.01 Crore considering the MAT rate of 21.55%.

3.3.8 As the separate auditing for power generation business was not carried out, the book profits from power generation business as claimed by SCCL need to be verified. Further, the profits for power generation business has to be computed considering the true-up claims approved by the Commission. The excess MAT, deemed to have been paid by SCCL, if arises, based on true-up claims approved by the Commission, is to be refunded by SCCL. If there are no profits for power generation business based on the true-up claims approved by the Commission, allowing MAT does not arise. Permissible MAT may be considered on the basis of actual profits accrued as per the tariff determined by the Commission.

3.3.9 In addition to the employee expenses, SCCL has claimed the contractual expenses to the tune of Rs.39.92 Crore, Rs.108.43 Crore, and Rs.105.07 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively without providing any justification. Hence, these expenses have to be disallowed.

3.3.10 As per the DPR for Flue Gas Desulphurisation (FGD) system, the by-product gypsum would be produced at the rate of 1000-1100 tons per day which can be used by cement manufacturers. Revenue from sale of gypsum has to be passed on to the DISCOMs as capital investment as well as additional auxiliary consumption have been claimed for FGD system.

Petitioner's replies

3.3.11 The true-up for the Control period from FY 2016-17 to FY 2018-19 has to be carried out in accordance with Regulation 8 of the CERC (Terms and Conditions of Tariff) Regulations, 2014. The Hon'ble APTEL in its Order dated 28.09.2018 directed the Commission to hear the true-up Petition of SCCL as per the procedure contemplated. Pendency of an Appeal against the Order dated 19.06.2017 cannot be a ground for not undertaking true-up. In a similar case, the Tariff Order of the Uttarakhand Electricity Regulatory Commission (UERC) (in the case of M/s Him Urja Pvt. Ltd.) was modified during the pendency of an Appeal against the same Order before the Hon'ble APTEL and that decision of UERC was not interfered by the Hon'ble APTEL.

3.3.12 The AFC for the Control Period from FY 2016-17 to FY 2018-19 has been claimed considering the audited capital cost. The interest rate claimed by SCCL is based on actuals and after considering the sharing of savings in accordance with Regulation 26.7 of the CERC (Terms and Conditions of Tariff) Regulations, 2014.

3.3.13 SCCL requested its lenders namely M/s Power Finance Corporation (PFC) and M/s Rural Electrification Corporation (REC) for reduction of interest rates on long-term loans. The interest rates reduced from 11.69% to 9.91%, 9.38% and 9.14% for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. The sharing of savings on account of the same have been considered in accordance with Regulation 26.7 of the CERC (Terms and Conditions of Tariff) Regulations, 2014. The rates of interest on long-term loan and working capital have been considered as 10.2% and 10.05% respectively for the Control Period from FY 2019-20 to FY 2023-24. The stakeholder’s contention that the sharing of savings in interest cost ought to be disallowed as the same had not been allowed in the tariff order is incorrect as the tariff Petition was filed by SCCL in accordance with the Regulation No.1 of 2008 but the Commission had adopted CERC (Terms and Conditions of Tariff) Regulations, 2014 for tariff determination and hence, it was impossible for SCCL to invoke the provisions in the CERC (Terms and Conditions of Tariff) Regulations, 2014 regarding loan restructuring. As such the same is omission and hence ought to be allowed in true-up.

3.3.14 The project financing was decided based on the provisions of the Regulation No.1 of 2008 which stipulate that the depreciation shall be based on straight line method over the useful life of the asset and at the rates specified in the MoP notification dated 21.03.1994 and on repayment of the entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset. Accordingly, the loan agreements were executed and the loan payback periods modelled for utilising such depreciation. On adoption of CERC (Terms and Conditions of Tariff) Regulations, 2014 by the Commission for tariff determination, the depreciation has reduced and became insufficient for loan repayment due to which the shortfall in loan repayment has to be met from the internal resources on which no return is allowed. AAD for meeting the loan repayment obligation would benefit the end consumers by way of reduced interest on loan.

3.3.15 The CERC (Terms and Conditions of Tariff) Regulations, 2014 and the Regulation No.1 of 2019 specify the base rate of RoE as 15.5%.

3.3.16 The stated amounts of Rs.580.15 Crore and Rs.700.73 Crore for FY 2017-18 and FY 2018-19 respectively are the book profits for the purpose of MAT under Section 115JB and include late payment surcharge. The MAT payments can be verified from the audited accounts of SCCL. The billing for the Control Period from FY 2016-17 to FY 2018-19 was done as per the Tariff Order dated 19.06.2017. Therefore, the stakeholder’s contention to compute the profits based on true-up claims approved by the Commission is incorrect.

3.3.17 The difference in book profits under Section 115JB and Profit Before Tax (PBT) for the project in FY 2018-19 is on account of non-payment of dues by the DISCOMs and consequent late payment surcharge billed in accordance with Clause 16 of the Regulation No.1 of 2008. As against the total billed amount of Rs.8285.64 Crore upto 31.03.2019, the DISCOMs paid the amount of Rs.4933.18 Crore and the dues amount to Rs.3352.47 Crore. These dues are without any adjustment for late payment surcharge.

3.3.18 The details of contractual expenses are as under:

Table 9: Details of contractual expenses submitted by SCCL

(Rs. Crore)

Financial Year	Hiring of HEMM, weigh bridges & others	O&M expenses	Others	Total
2016-17	3.95	32.52	3.45	**39.92**
2017-18	9.10	83.88	15.45	**108.43**
2018-19	6.12	86.43	12.52	**105.07**

3.3.19 The revenue from sale of gypsum may be considered in the true-up for the Control Period from FY 2019-20 to FY 2023-24 based on the net revenue earned after installation of FGD system.

Commission's View

3.3.20 The Commission has carried out the true-up for the Control Period from FY 2016-17 to FY 2018-19 in accordance with the provisions of the CERC (Terms and Conditions of Tariff) Regulations, 2014 as detailed in Chapter 4. The Commission has approved the AFC for the Control Period from FY 2019-20 to FY 2023-24 in accordance with the provisions of the Regulation No.1 of 2019 as detailed in Chapter 6.

3.4 NORMS OF OPERATION

Stakeholders' submissions

3.4.1 The operational parameters approved by the Commission are generally relaxed norms. Considering operational parameters on higher side as opposed to the lower of actual and norms results in accrual of profits to the generator at the cost of the consumers. Comparison of the approved norms for the project with norms of other generating stations has no relevance as the fuel procurement, of specific quality and price, has to be undertaken for achieving the approved norms for the project.

3.4.2 SCCL has compared its operational norms with the generating station of Telangana State Power Generation Corporation Ltd. (TSGENCO) disregarding the economies of scale achieved by it in setting up of 2x600 MW units, such as sharing of identical BTG spares, sharing of common infrastructure facilities for raw water intake pump house, Boiler Feed Pumps (BFPs), common conveyor system, common ash disposal, common auxiliaries etc. The gains accrued to the project under the controllable parameters such as revenue from sale of fly ash is not passed on to the DISCOMs but the operational norms have been claimed on inferior side. The norms of operation should be allowed in accordance with the specified norms. The additional auxiliary consumption for FGD system may be allowed after commissioning, duly considering CEA guidelines.

3.4.3 SCCL has claimed the Plant Load Factor (PLF) of 91.06% and 81.94% for FY 2017-18 and FY 2018-19 respectively. The stakeholder sought the reasons for variations in PLF. SCCL has considered the PLF of 80%, that specified for Kakatiya TPP (KTPP) Stage II, as against the normative PLF of 85% for the Control Period from FY 2019-20 to FY 2023-24. The claim of incentive for higher PLF for the Control Period from FY 2019-20 to FY 2023-24 indicates that the project can achieve the normative PLF of 85%. SCCL has also considered the other operational parameters inferior to the specified norms.

3.4.4 SCCL submitted that the project has been considered as non-pit head generating station for the Control Period from FY 2019-20 to FY 2023-24. The project can be considered as non-pit head generating station if the coal is procured from the mine allocated in Odisha. If the coal allocation from SCCL mines is approved, the project has to be considered as pit head generating station. The project cannot be presumed to be a non-pit head generating station for the entire Control Period.

Petitioner's replies

3.4.5 The all India average PLF of thermal power stations was 60.72% and 61.07% for FY 2017-18 and FY 2018-19 respectively. In this context, the stakeholder's contention that the approved operational parameters are relaxed norms is diverting. SCCL has made detailed submissions regarding its claim of norms of operation for the Control Period from FY 2019-20 to FY 2023-24 on similar lines of KTPP Stage II.

3.4.6 Section 61(e) of the Act provides that the Appropriate Commission shall adhere to the principle of rewarding efficiency in performance while specifying the terms and conditions of tariff. This implies that the Regulations have to be specified such that the efficient one amongst the generating units of similar configuration gets rewarded and not penalised with stringent operating norms. The Regulations should specify uniform norms for all the generating units of 600 MW size and cannot be project specific. The draft Regulations issued by the Commission specified uniform norms for KTPP Stage II and Singareni TPP and therefore no comments were submitted by SCCL on the norms of operation. However, the final Regulations specified different norms for KTPP Stage II and Singareni TPP. Further, the norms of operation differ from one Control Period to the other as witnessed in the CERC (Terms and Conditions of Tariff) Regulations, 2014 and the CERC (Terms and Conditions of Tariff) Regulations, 2019. The Commission may look into this issue and approve the norms of operation. The additional auxiliary consumption for FGD system has been claimed based on the DPR.

3.4.7 The stakeholder's contention that the norms of operation will vary depending on the economies of scale is misplaced. The common infrastructure facilities had already been considered in the approval of norms of operation. The Commission had approved the normative Station Heat Rate (SHR) in accordance with the provisions of the CERC (Terms and Conditions of Tariff) Regulations, 2014 considering the design parameters such as boiler efficiency and turbine heat rate. Further, Singareni TPP is a greenfield project whereas KTPP Stage II is an extension unit wherein the opportunity to optimise O&M exists due to economies of scale. The revenue from sale of fly ash shall be guided by MoEF's notification no. S.O.2804(E) which states as under:

"(6) The amount collected from sale of fly ash and fly ash based products by coal and/or lignite based thermal power stations or their subsidiary or sister concern unit, as applicable should be kept in a separate account head and shall be utilized only for development of infrastructure or facilities, promotion

and facilitation activities for use of fly ash until 100 percent fly ash utilisation level is achieved; thereafter as long as 100% fly ash utilization levels are maintained, the thermal power station would be free to utilize the amount collected for other development programmes also and in case, there is a reduction in the fly ash utilization levels in the subsequent year(s), the use of financial return fly ash shall get restricted to development of infrastructure or facilities and promotion or facilitation activities fly ash utilization until 100 percent fly ash utilization level is again achieved and maintained."

3.4.8 The incentive for higher PLF has been claimed with the projection that the PLF could be achieved higher than the normative PLF based on past experience and after factoring in annual overhauling in alternate years and forced outages.

3.4.9 Coal was supplied from SCCL mines on best effort basis through Bridge Linkage route. Almost 20-25% of the annual coal requirement was met from various mines which are not linked through Merry-Go-Round (MGR) system. As per the definition of non-pit head generating station under Clause 8(b) of the Environment (Protection) Rules, 1986, the project has to be treated as non-pit head generating station.

Commission's View

3.4.10 The Commission has approved the norms of operation for the Control Period from FY 2019-20 to FY 2023-23 in accordance with the provisions of the Regulation No.1 of 2019 as detailed in Chapter 5.

3.5 ENERGY CHARGES

Stakeholders' submissions

3.5.1 SCCL has claimed the energy charge rate of Rs.1.84/kWh as against Rs.1.69/kWh approved by the Commission. This increase is on account of lower GCV of coal and higher coal price claimed by SCCL than that approved by the Commission. SCCL has claimed the GCV of 3895.18 kcal/kg as against 4130 kcal/kg approved by the Commission. SCCL has claimed the coal price of Rs.2.90/kg as against Rs.2.84/kg approved by the Commission. Further, SCCL has claimed the specific coal consumption of 0.59 kg/kWh as against 0.56 kg/kWh approved by the Commission which indicates lower efficiency of the plant. The electricity consumers should not be burdened with higher energy charges as the same are on account of inferior quality coal and inefficiency in operations.

3.5.2 The coal price has been projected to increase from Rs.3494.72/MT in FY 2019-20 to Rs.4580.87/MT in FY 2023-24. If the project is allocated coal from SCCL mines, the coal price would be lower than the Bridge Linkage coal. Projecting the annual increase in coal price for the Control Period from FY 2019-20 to FY 2023-24 is arbitrary and not allowable.

3.5.3 Naini coal block was allocated for the project on 13.08.2015 and was expected to commence production in December 2020. SCCL submitted that the production from Naini coal block would be achieved by the year 2023 and the existing Bridge Linkage has been extended till then. Therefore, the delay on account of coal materialisation from allocated Naini coal block would continue to burden in the form of premium coal price. This burden should not be passed on to the DISCOMs.

3.5.4 The policy guidelines for grant of Bridge Linkage mandated the coal suppliers to supply 75% of Agreed Requirement of coal wherein Agreed Requirement is calculated at 90% of normative requirement of the project at 85% PLF. This means that the Bridge Linkage allocation would be 57.375% of the requirement of the project at notified price. The balance coal requirement is deemed to have been procured through e-auction at premium price of 20% over and above the notified price applicable for non-power sector. The procurement at premium price can be avoided by expediting the production from Naini coal block.

3.5.5 The Commission, in the Tariff Order, directed SCCL to actively pursue the issue of coal allocation with the Ministry of Coal (MoC) so that the cumbersome task of coal transportation from Odisha and associated losses in quantity and GCV could be mitigated by procuring coal from its own mines closer to the project. The current status of the compliance to the Commission’s direction has not been submitted. The inaction of Government of India (GoI) in allocation of coal from the coal mines of SCCL, although SCCL had expressed its capability and readiness to supply coal to the project, is imposing avoidable additional burden in the form of higher prices for Bridge Linkage coal and coal transportation costs.

3.5.6 SCCL submitted that the energy bills for the Control Period from FY 2019-20 to FY 2023-24 shall be raised considering the actual fuel prices and GCV. As per the provisions of the Regulation No.1 of 2019, the GCV of coal has to be considered on 'as received' basis and not 'as fired' basis claimed by SCCL. Clause 21.6.1 of the Regulation No.1 of 2019 stipulates the GCV of coal to be considered on 'as received' basis. The variation in GCV allowed in Clause 21.10 is because the actual GCV will not be known at the time of billing. By claiming GCV on 'as fired' basis, SCCL is resorting to pick and choose the regulatory provisions. The difference in GCV from 'as billed' to 'as received' is approximately 1000 kcal/kg due to which the energy charges have increased in FY 2018-19. The variations in coal price should be adjusted subject to the terms and conditions of the PPA.

3.5.7 SCCL has claimed the incentive for higher PLF for the Control Period from FY 2019-20 to FY 2023-24 as per the provisions of the CERC (Terms and Conditions of Tariff) Regulations, 2019 and not as per Regulation No.1 of 2019. The same may be disallowed.

Petitioner's replies

3.5.8 The energy charges during the Control Period from FY 2016-17 to FY 2018-19 were billed considering the norms of operation approved by the Commission and the actual fuel prices and GCV in accordance with Regulation 30.6 of the CERC (Terms and Conditions of Tariff) Regulations, 2014. The coal quality variations occur normally in a TPP due to which the boilers are designed to handle such variations. The boilers of the project have been designed to handle the coal having GCV in the range of 3786 kcal/kg to 4529 kcal/kg. The specific coal consumption is derived based on the GCV of coal and it is incorrect to state that the Commission had approved the same as 0.56 kg/kWh as the specific coal consumption varies with the GCV of coal received.

3.5.9 Naini coal block is expected to commence production in the later part of the year 2020 and the production level is expected to reach peak rated capacity by the year 2023 considering the technical and managerial issues. The total coal requirement for the project cannot be met from Naini coal block before the year 2023 and therefore, tapering linkage has been approved for meeting the coal requirement. The progress of development of Naini coal block is being continuously monitored by SCCL's top management and the coal production would be further expedited.

3.5.10 SCCL has been exploring the swapping of Naini coal block with a utility in Odisha which has coal allocation in Telangana but it could not materialise. SCCL has also been working on an alternate plan to transport coal from Naini coal block which could lead to reduction in base coal price but increase in transportation cost. The South-Central Railway authorities had advised to undertake the works of two nos. wagon tipplers at the railway siding for seamless supply of coal from Naini coal block to the project. This additional scope was not envisaged in the DPR and hence submitted in the capital investment plan for Commission's approval.

3.5.11 The reallocation of Naini coal block with a nearby coal mine of SCCL on permanent basis is not feasible until specific directions are issued by the Government in this regard. The projections of energy charges for the Control Period from FY 2019-20 to FY 2023-24 have been submitted considering the past trends of actual fuel prices and GCV. However, the energy charges shall be billed in accordance with the provisions of the Regulation No.1 of 2019 considering the approved norms of operation and actual fuel prices and GCV.

3.5.12 Some ambiguity persists in the Regulation No.1 of 2019 regarding the GCV of coal to be considered for computation of energy charges due to incompatibility between Clauses 21.6, 21.7 and 21.10. The State Electricity Regulatory Commissions (SERCs) are guided by the principles and methodologies of CERC in specifying the Regulations as per Section 61(a) of the Electricity Act, 2003. CERC (Terms and Conditions of Tariff) Regulations, 2014 specify that the energy charge shall be computed based on as received GCV of coal less 85 kcal/kg. CEA had suggested the margin of 85-100 kcal/kg for pit head generating stations and 105-120 kcal/kg for non-pit head generating stations as loss in GCV measured at wagon top at unloading point till the firing point in the boiler. The Tariff Regulations of other SERCs such as Maharashtra ERC, Gujarat ERC and Odisha ERC specify energy charge computation on similar lines of CERC (Terms and Conditions of Tariff) Regulations, 2019 or on the basis of as fired GCV of coal. As per Clause 21.7 of the Regulation No.1 of 2019, the fuel details have to be provided to the beneficiaries as per Form-15 prescribed by CERC for thermal generating stations. Usage of Form-15 of the CERC (Terms and Conditions of Tariff) Regulations, 2019 is possible only if billing is made on ‘as fired’ basis. Further, the PPA provides for GCV to be considered on ‘as fired’ basis and hence the DISCOMs are precluded from denying this aspect.

3.5.13 SCCL requested the Commission to allow the energy billing either based on as fired GCV or to allow sufficient margin from as received GCV to compensate for GCV loss due to storage at the generating station.

Commission’s View

3.5.14 The Commission has approved the Energy Charge Rate (ECR) for the Control Period from FY 2019-20 to FY 2023-23 in accordance with the provisions of the Regulation No.1 of 2019 as detailed in Chapter 6.

3.6 GENERATION TARIFF

Stakeholders’ submissions

3.6.1 SCCL has claimed the generation tariff of Rs.4.91/kWh, Rs.5.23/kWh, Rs.5.63/kWh, Rs.6.17/kWh and Rs.6.72/kWh for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24 respectively. The clamed generation tariffs are higher in comparison to the tariff of Rs.3.49/kWh approved for FY 2018-19.

Petitioner’s replies

3.6.2 The approved generation tariff of Rs.3.49/kWh for FY 2018-19 quoted by the stakeholder has no basis. The generation tariff approved by the Commission comprise of AFC and norms of operation for billing of energy charges on monthly basis. The average per unit tariff for FY 2018-19 was Rs.4.08/kWh. The projected generation tariff is comparable to the other generating stations in the State.

Commission’s View

3.6.3 The Commission has taken note of stakeholders’ submissions and Petitioner’s replies.

3.7 BILLING DISPUTES

Stakeholders' submissions

3.7.1 SCCL submitted that the DISCOMs have disallowed the energy bills to the tune of Rs.121.43 Crore for FY 2018-19 without considering additional coal price as per the provisions of the Bridge Linkage MoU and the auditor certified coal cost. As per the MoU, coal supplies upto 75% of the agreed quantity would be charged at 20% over the notified basic price for power sector for all coal grades while for coal supplies beyond 75% of the agreed quantity, the price charged would be 20% over and above the notified basic price for non-power sector. Achieving higher PLF by using premium priced coal is unjustified. Moreover, the premium charged by CIL is 10% over and above the notified price applicable for power sector whereas the premium charged by SCCL is 20% over and above the notified price applicable for non-power sector. The Commission may disallow the impact of this irrational coal pricing.

3.7.2 SCCL submitted that it had supplied energy in excess of scheduled energy during FY 2017-18 and requested the Commission to allow the energy bills to the tune of Rs.17.75 Crore, which was disallowed by the DISCOMs. The claim in respect of excess energy injected is not in consonance with the Tariff Regulations and is a violation of Grid Code as the excess energy injected into the grid without complying to the schedules of State Load Despatch Centre (SLDC) would give rise to threat to grid security. Therefore, the same is not permissible. KTPP has not injected unscheduled energy and hence the comparison made by SCCL is not plausible. There had been several instances wherein SCCL has injected more than the schedule in non-compliance of SLDC directions as evident from the correspondences from SLDC. The achievement of PLF of more than 85% during the previous year's confirm that the directions of SLDC had been violated and over injection has been done into the grid. Due to such over injection by SCCL, the other generators had to be backed down with fixed cost obligation. Such violations of SLDC directions by multiple generators endanger grid safety and hence, need to be penalised. As per Article 6.1.2 of the PPA, the energy bills shall be raised as per SLDC schedule.

3.7.3 SCCL has claimed the PLF of 91.09% for FY 2017-18 by considering the unscheduled energy injected into the grid and claimed the incentive of Rs.29.11 Crore for higher PLF. The PLF for FY 2017-18 works out to 90.79% without considering the unscheduled energy injected into the grid. Incentive is not allowable for the unscheduled energy injected. The Commission may disallow the incentive claimed by SCCL.

3.7.4 SCCL submitted that the water charges amounting to Rs.3.63 Crore and other local taxes, license fee etc. amounting to Rs.4.79 Crore for the period from 01.12.2016 to 31.08.2018 have not been paid by the DISCOMs and requested the Commission to allow the same. The DISCOMs paid the monthly energy bills including the supplementary bills towards taxes & duties as per the Tariff Regulations. SCCL may be directed to reconcile the sums received by it.

Petitioner's replies

3.7.5 The stakeholder's contention that achieving higher PLF using premium priced coal is unjustified has no legal basis. The Tariff Regulations neither prohibits achieving higher PLF using Bridge Linkage coal nor puts a bar on paying coal price as per the MoU with the coal supplier.

3.7.6 The delay in materialising coal supply from Naini coal block was discussed in the Standing Linkage Committee (SLC) under MoC and the committee, after considering the representation made by SCCL, had recommended extension of Bridge Linkage upto the year 2023 in the form of tapering linkage in synchronisation with the production from Naini coal block. The delay is attributable to uncontrollable factors due to which the extension of Bridge Linkage was granted.

3.7.7 The stakeholder has compared the pricing principles for Bridge Linkage coal followed by SCCL and CIL however, it is inappropriate to contend this issue before the Commission as coal pricing is dealt by MoC and not the Commission. The operating areas of SCCL and CIL are not comparable. The annual production target level of CIL is 710 MMT for the year 2020 whereas the target is 67.5 MMT for SCCL which is equivalent to $1/11^{th}$ of CIL's target. The ratio of open cast to underground mines, number of employees per ton of coal production, over burden ratio etc. varies significantly between CIL and

SCCL. Therefore, the cost structure of coal produced by CIL and SCCL are different and comparison between the two is inappropriate.

3.7.8 The MoU entered between the coal mining and power generation businesses of SCCL satisfies the condition for arm's length transaction which provides that the parties have to act independently without being influenced by other. The MoU under which the coal is supplied to the project contains the same provisions of coal pricing of the MoU entered into with M/s NTPC Ltd. The copy of MoU entered into with M/s NTPC has been submitted in support to the same. The coal pricing methodology is not advantageous or disadvantageous for the project when compared to other TPPs being supplied coal from SCCL mines. The increase in coal cost as certified by the statutory auditor is admissible for the computation of energy charges as per Regulation 30(6) of the CERC (Terms and Conditions of Tariff) Regulations, 2014. The Commission may allow the additional coal bills raised in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014.

3.7.9 SCCL has submitted the justification for claiming the bills on actual meter readings as under:

- Scheduling is a day ahead exercise and actual generation cannot exactly match with the schedule on real time basis due to variation in connected load, frequency and coal quantity.
- The commercial mechanism has been developed in the country to deal with these variations in scheduled generation and actual generation. However, such a mechanism is not prevalent in Telangana State.
- As per the Article 6 and Article 7 of the PPA, the readings of main meter shall form the basis of billing and the monthly bills were raised by SCCL in accordance with the same.

3.7.10 The stakeholder submitted that the excess energy injected into the grid is not in consonance with CERC Regulations and is a violation of Grid Code. When the CERC Regulations on Deviation Settlement Mechanism and related matters recognise such deviations and also provides commercial mechanism to deal with such deviations, it cannot be said that the deviations are in violation of Grid Code. As per CERC's Deviation Settlement Mechanism, the over injection or under injection shall be within the limit of 12% of scheduled injection or 150 MW whichever is lower. During FY 2018-19, the actual generation is 8208.21 MU as against the scheduled generation of 8113.45

MU and the deviation amounts to 94.76 MU i.e., 1.16% which is within the permissible limits. As per the study conducted to understand the implication of such over injection on the payment liability of Telangana State at regional level, the pay outgo for Telangana State in Southern Regional Power Committee (SRPC) would have increased by Rs.31.88 Crore in the absence of over injection by SCCL. As against the same, the claim of Rs.17.75 Crore is reasonable. Therefore, the Commission may allow the energy charges based on actual energy.

3.7.11 The monthly billing is done as per the JMRs at the end of the month in accordance with Clause 7.11 of the PPA. The Telangana State Power Coordination Committee (TSPCC) chose to admit the bills based on scheduled generation instead of actual generation which is in deviation from the billing methodology followed for other intra-State generators. The copy of bill raised by TSGENCO has been submitted in support of the same.

3.7.12 The generation, although beyond schedule, has been supplied under the agreement with the DISCOMs and such energy was sold to the consumers of the State. Therefore, as per Section 70 of the Indian Contract Act, when such quantum of power not prohibited by law has been supplied not for gratis, the recipient is bound to pay the consideration. This principle has been laid down by the Constitution Bench of Supreme Court of India in a case between State of West Bengal vs B.K. Mondlal reported at 1962 AIR (SC) 779. The same is law of the land and is binding on all including the DISCOMs. The claim of the DISCOMs that the energy injected beyond schedule is not entitled for consideration is contrary to law. Invariably, there would be variation between scheduled generation and actual generation and actual generation is entitled to be considered. Although the SLDC had issued the notice for over injection, considering the marginal deviation of schedule, SLDC did not choose to initiate any proceedings for the over injection as contemplated in Section 33 read with Section 143 of the Electricity Act, 2003. Therefore, the contention of the stakeholder is untenable.

3.7.13 The Commission, in the Tariff Order, had approved the target PLF for incentive as 85% and allowed the incentive to be billed in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014. The incentive for higher PLF is allowable in accordance with the PPA as well as the Regulations. The incentive for FY 2017-18 had been claimed considering the actual generation in place of scheduled generation as specified in the CERC (Terms and Conditions of Tariff) Regulations, 2014 as the Telangana State does not have balancing and settlement code for intra-State generators and the energy bills for state generators were allowed on actual energy injected into the grid as per Joint Meter Readings (JMRs). The Commission may allow the incentive claimed for FY 2017-18.

3.7.14 The DISCOMs submitted that the claims of taxes and duties were paid however, item wise acceptance of bills as per the PPA has not been confirmed. The taxes, duties and statutory charges are payable by the DISCOMs as per Article 5 of the PPA and the CERC (Terms and Conditions of Tariff) Regulations, 2014 and the Commission’s Order dated 19.06.2017 does not restrict the reimbursement of the same by the DISCOMs.

Commission’s View

3.7.15 The Commission has taken note of the stakeholders’ submissions and the Petitioner’s replies on billing disputes. The Commission’s ruling on the billing disputes is detailed in Chapter 4.

Contd…

CHAPTER 4
ANALYSIS AND CONCLUSION ON TRUE-UP FOR FY 2016-17 TO FY 2018-19

4.1 REGULATORY PROVISIONS

4.1.1 The Commission in the Tariff Order had adopted the CERC (Terms and Conditions of Tariff) Regulations, 2014 for tariff determination for FY 2016-17 to FY 2018-19. This approach of the Commission was challenged by SCCL in its Appeal No.312 of 2017 filed before the Hon'ble APTEL and the Appeal is sub-judice. SCCL filed the true-up for FY 2016-17 to FY 2018-19 considering the provisions of the CERC (Terms and Conditions of Tariff) Regulations, 2014 and also prayed for tariff determination as per Regulation No.1 of 2008. The Commission does not accept SCCL's prayer for consideration of Regulation No.1 of 2008 for FY 2016-17 to FY 2018-19 due to the Appeal pending before the Hon'ble APTEL. The Commission has carried out the true-up for FY 2016-17 to FY 2018-19 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014. The same shall be subject to the outcome of the Appeal No.312 of 2017 pending before the Hon'ble APTEL.

4.1.2 As regards true-up, Regulation 8 of the CERC (Terms and Conditions of Tariff) Regulations, 2014 stipulates as under:

*"**8. <u>Truing up</u>***
(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up:
........."

4.1.3 The true-up carried out by the Commission is detailed in the following paragraphs.

4.2 BACKGROUND

4.2.1 SCCL's Board, vide its minutes of meeting held on 19.07.2010 agreed in principle to the DPR of 2x600 MW coal based TPP at a capital cost of Rs.5527 Crore. The Government of undivided Andhra Pradesh, vide its letter dated 03.09.2010 had accorded the approval for setting up of 2x600 MW TPP in Jaipur Mandal in Mancherial (erstwhile Adilabad) District by SCCL with a capital cost of Rs.5527 Crore (updated to Rs.5685 Crore). SCCL's Board, in its minutes of meeting held on 30.07.2013 had considered the revised cost estimates of Rs.7573.51 Crore and recommended for sanction of the Government. GoTS, vide its letter dated 25.04.2015 accorded the approval for the revised cost estimates of Rs.7573.51 Crore duly revising the earlier approval for Rs.5685 Crore. Units 1&2 achieved COD on 25.09.2016 and 02.12.2016 respectively thereby the project achieved COD on 02.12.2016. SCCL's Board, in its minutes of meeting held on 27.05.2017 accorded approval for the revised cost estimate of Rs.8584 Crore for obtaining sanction of GoTS. GoTS, vide its letter dated 23.09.2017 accorded approval for the revised cost estimate of Rs.8584 Crore duly revising the earlier approval for Rs.7573.51 Crore.

4.3 CAPITAL COST APPROVED IN ORDER DATED 19.06.2017 IN O.P.NO.9 OF 2016

4.3.1 The capital cost approved by the Commission in the Tariff Order is as shown in the Table below:

Table 10: Capital cost approved in the Tariff Order

(Rs. Crore)

Sl. No.	Particulars	Capital cost as on COD	Additional capitalisation (provisional)			Capital cost upto FY 2018-19
			FY 2016-17	FY 2017-18	FY 2018-19	
1	Land and Site Development	61.73	7.44	0.00	15.83	85.00
2	BTG	4366.98	27.72	0.00	68.74	4463.44
3	BoP	835.71	30.32	0.00	142.72	1008.75
4	External Water Supply System					
	1 TMC from River Godavari	83.48	2.52	0.00	0.00	86.00
	2 TMC from River Pranahita	0.00	0.00	0.00	320.00	320.00
5	Raw Water Reservoir	43.17	5.05	0.00	18.78	67.00
6	Railway Siding	0.00	0.00	0.00	80.00	80.00
7	Other Works undertaken by SCCL					
	Additional 400 kV Bays	0.00	28.69	0.00	0.00	28.69
	Plant Roads & Culverts	11.44	0.27	0.00	8.29	20.00
	Coal transport roads	42.61	1.50	0.00	12.37	56.48
	Boundary Walls	16.94	0.25	0.00	0.00	17.19
	Gate complex, Security etc.	0.23	0.20	0.00	4.97	5.40
	Township	52.18	13.54	0.00	14.28	80.00
	Environmental Impact measures	0.79	0.18	0.00	4.03	5.00
	Mandatory capital expenditure under MoEF clearance	9.45	0.60	0.00	12.05	22.10
	Weigh Bridge, Fire	0.42	0.00	0.00	1.58	2.00

Sl. No.	Particulars	Capital cost as on COD	Additional capitalisation (provisional)			Capital cost upto FY 2018-19
			FY 2016-17	FY 2017-18	FY 2018-19	
	Tender etc.					
	Furniture & office automation	2.37	0.00	0.00	2.63	5.00
	Miscellaneous expenditure	3.48	0.33	0.00	1.19	5.00
	Sub-total (7)	**139.91**	**45.56**	**0.00**	**61.39**	**246.86**
8	Overheads	291.10	6.24	0.00	37.23	334.57
	Total Hard Cost	**5822.08**	**124.85**	**0.00**	**744.69**	**6691.62**
9	IDC	883.63	0.00	0.00	0.00	883.63
10	**Total Capital Cost**	**6705.71**	**124.85**	**0.00**	**744.69**	**7575.25**

4.3.2 The above approved capital cost is excluding the undischarged liabilities as on COD amounting to Rs.443.81 Crore. As regards the same, the Commission in the Tariff Order ruled as under:

"3.4.18 .... On account of the above, the Commission, in this Order, has not considered the cost pertaining to discharge of liabilities pending as on COD. The Commission shall consider the same after finalization of the liability, in the approval of generation tariff for the next Control Period after prudence check of the information submitted by the Petitioner........."

"3.5.7 .... On account of the above, the Commission, in this Order, has not considered the cost pertaining to discharge of pending liabilities as on COD. The Commission shall consider the same after finalization of the liability, in the approval of generation tariff for the next Control Period after prudence check of the information submitted by the Petitioner........."

4.4 CAPITAL COST AS ON COD OF THE PROJECT

4.4.1 The Commission in the Tariff Order had approved the capital cost as on COD of the project at Rs.6705.71 Crore. As against the same, SCCL claimed the capital cost of Rs.7114.82 Crore in its true-up claim. The Commission's approach on approval of capital cost has been challenged by SCCL in its Appeal No.312 of 2017 before the Hon'ble APTEL the Appeal is sub-judice. Therefore, the Commission does not find it prudent to revise the approved capital cost of Rs.6705.71 Crore as on COD of the project. The same shall be subject to the outcome of the Appeal No.312 of 2017 pending before the Hon'ble APTEL.

4.5 ADDITIONAL CAPITALISATION FOR FY 2016-17 TO FY 2018-19

4.5.1 The Commission in the Tariff Order approved the provisional additional capitalisation for FY 2016-17 to FY 2018-19. The relevant extract of the Commission's Order is reproduced below:

"3.15.2 The Commission observes that the additional capitalisation claimed by SCCL is towards deferred works within the original scope of work. The approach adopted by the Commission in approving the additional capitalisation is as under:

(i) The Commission has approved the package wise additional capitalisation based on the claim of SCCL subject to the total cost for the respective package is within the approved cost, provisionally.

(ii) The Commission has approved the overheads in the additional capitalisation limiting the same to 5% of the approved additional capitalisation for the respective years.

(iii) As discussed in the preceding paragraph, the Commission has not considered the finance charges in the additional capitalisation."

4.5.2 The Commission's approach on approval of (provisional) additional capitalisation for FY 2016-17 to FY 2018-19 has been challenged by SCCL in its Appeal No.312 of 2017 before the Hon'ble APTEL and the Appeal is sub-judice. As there is no stay on the Commission's Order, the Commission deems it prudent to approve the additional capitalisation for FY 2016-17 to FY 2018-19 based on the audited figures submitted by SCCL in the instant Petition and in line with the principles adopted in the Tariff Order. The same shall be subject to the outcome of the Appeal No.312 of 2017 pending before the Hon'ble APTEL. Although the Commission had not approved the additional capitalisation for FY 2017-18 in the Tariff Order, as some part of additional capitalisation approved for FY 2018-19 has been actually incurred in FY 2017-18, the Commission deems it fit to approve the additional capitalisation for FY 2017-18 on true-up based on prudence check of SCCL's claims.

4.5.3 SCCL claimed the audited additional capitalisation, including discharge of liabilities as on COD of the project, as shown in the Table below:

Table 11: Additional capitalisation claimed for FY 2016-17 to FY 2018-19

(Rs. Crore)

Sl. No.	Particulars	Additional Capitalisation					
		FY 2016-17		FY 2017-18		FY 2018-19	
		Approved in Tariff Order	Claimed for true-up	Approved in Tariff Order	Claimed for true-up	Approved in Tariff Order	Claimed for true-up
1	Land and Site Development	7.44	1.38	0.00	0.17	15.83	13.27
2	BTG	27.72	-11.23	0.00	237.09	68.74	222.68
3	BoP	30.32	37.09	0.00	73.50	142.72	-24.29
4	External Water Supply System						
	1 TMC from River Godavari	2.52	0.48	0.00	0.22	0.00	0.04
	2 TMC from River Pranahita	0.00	0.00	0.00	0.00	320.00	319.35

Sl. No.	Particulars	Additional Capitalisation					
		FY 2016-17		FY 2017-18		FY 2018-19	
		Approved in Tariff Order	Claimed for true-up	Approved in Tariff Order	Claimed for true-up	Approved in Tariff Order	Claimed for true-up
5	Raw Water Reservoir	5.05	2.90	0.00	5.41	18.78	3.09
6	Railway Siding	0.00	0.00	0.00	0.00	80.00	322.57
7	Other Works undertaken by SCCL						
	Additional 400 kV Bays	28.69	0.00	0.00	28.70	0.00	2.04
	Plant Roads & Culverts	0.27	0.31	0.00	0.59	8.29	0.35
	Coal transport roads	1.50	3.11	0.00	-1.09	12.37	-0.68
	Boundary Walls	0.25	0.25	0.00	0.00	0.00	0.00
	Gate complex, Security etc.	0.20	0.37	0.00	0.85	4.97	0.07
	Township	13.54	11.32	0.00	26.80	14.28	19.23
	Environmental Impact measures	0.18	-0.01	0.00	0.09	4.03	0.38
	Mandatory capital expenditure under MoEF clearance	0.60	0.60	0.00	0.68	12.05	3.11
	Weigh Bridge, Fire Tender etc.	0.00	0.03	0.00	0.00	1.58	1.04
	Furniture & office automation	0.00	-0.19	0.00	0.54	2.63	2.06
	Miscellaneous expenditure	0.33	0.51	0.00	0.51	1.19	2.81
	Sub-total (7)	**45.56**	**16.30**	**0.00**	**57.67**	**61.39**	**30.41**
8	Overheads	6.24	31.59	0.00	5.86	37.23	-0.37
	Total Hard Cost	**124.85**	**78.51**	**0.00**	**379.92**	**744.69**	**886.75**
9	Interest During Construction & financing charges		17.14	0.00	21.55	0.00	-37.69
10	**Total Capital Cost**	**124.85**	**95.65**	**0.00**	**401.47**	**744.69**	**849.06**

4.5.4 SCCL's claim of additional capitalisation and the Commission's approval is detailed in the following paragraphs.

4.6 LAND AND SITE DEVELOPMENT

Petitioner's submission

4.6.1 SCCL claimed the additional capitalisation of Rs.1.38 Crore, Rs.0.17 Crore and Rs.13.27 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards land and site development.

Commission's View

4.6.2 The Commission, in the Tariff Order, had approved the total cost of land and site development at Rs.85.00 Crore and the cost upto project COD at 61.73 Crore. As against the approved additional capitalisation of Rs.7.44 Crore and Rs.15.83 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.1.38 Crore, Rs.0.17 Crore and Rs.13.27 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the land and site development cost of Rs.76.55 Crore upto FY 2018-

19 as against the approved total cost of Rs.85.00 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards land and site development.

4.6.3 The cost of land and site development claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 12: Land and site development cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	85.00	-	-
Cost upto project COD (A)	**61.73**	**61.73**	**61.73**
Additional capitalisation			
FY 2016-17	7.44	1.38	1.38
FY 2017-18	0.00	0.17	0.17
FY 2018-19	15.83	13.27	13.27
Total additional capitalisation (B)	**23.27**	**14.82**	**14.82**
Total cost upto FY 2018-19 (A+B)	**85.00**	**76.55**	**76.55**

4.7 BOILER, TURBINE AND GENERATOR (BTG)

Petitioner's submission

4.7.1 SCCL claimed the additional capitalisation of Rs.-11.23 Crore, Rs.237.09 Crore and Rs.222.68 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards BTG.

Commission's View

4.7.2 The Commission, in the Tariff Order dated 19.06.2017, had approved the total cost of BTG at Rs.4463.44 Crore and the cost upto project COD at Rs.4366.98 Crore. This approved cost was after deducting the undischarged liabilities to the tune of Rs.414.56 Crore as on project COD. As against the approved additional capitalisation of Rs.27.72 Crore and Rs.68.74 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.-11.23 Crore, Rs.237.09 Crore and Rs.222.68 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. The claimed additional capitalisation of inclusive of liabilities as on COD discharged to the tune of Rs.-1.83 Crore, Rs.237.09 Crore and Rs.145.34 Crore in FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

4.7.3 The Commission, in the Tariff Order, directed SCCL as under:

“3.4.16 .... the Commission directs SCCL to submit the compilation of all the price variation bills along with its Petition for approval of generation tariff for the next Control Period.”

“3.4.18 .... the Commission directs SCCL to submit the Performance Guarantee Test Reports after completion of the same along with the amount of Liquidated Damages, if levied any, along with its Tariff Petition for the next Control Period.”

4.7.4 SCCL submitted the compilation of price variation bills, the copies of Performance Guarantee Test Reports and acceptance letters of NTPC and SCCL for the same.

4.7.5 The Commission in the Tariff Order had approved the price variation of Rs.706 Crore towards BTG package. In the instant Petition, SCCL submitted the price variation of Rs.780.28 Crore towards BTG package. SCCL submitted that the price variation amounting to Rs.706 Crore is exclusive of taxes & duties and the amount of Rs.780.28 Crore is inclusive of taxes and duties. SCCL submitted that the price variation is applicable on supplies and civil works with a maximum limit of 20% and there is no limit on erection and structural works. The Commission has taken note of SCCL’s submissions.

4.7.6 SCCL submitted that the liquidated damages imposed for BTG contract is Rs.27.73 Crore (excluding taxes and duties) which translates to Rs.32.72 Crore including taxes and duties. The stakeholders submitted that the liquidated damages should be deducted from the capital cost to which SCCL replied that the liquidated damages have to be set off against the disallowance of IDC. The Commission, in its Order dated 19.06.2017 in O.P.No.9 of 2016 had disallowed IDC to the tune of Rs.323.12 Crore corresponding to the delay that was not condoned. As the Commission had disallowed IDC for delay if SCCL levies liquidated damages over and above the amount of IDC disallowed by the Commission, such excess amount shall be deducted from the capital cost.

4.7.7 SCCL claimed the BTG cost of Rs.4815.52 Crore upto FY 2018-19 as against the approved total cost of Rs.4878.00 Crore (including undischarged liabilities). As the claimed cost is lower than the total cost approved, the Commission approves SCCL’s claim of additional capitalisation towards BTG.

4.7.8 The BTG cost claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 13: BTG cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	4878.00	-	-
Less: Undischarged liabilities	414.56	-	-
Cost excluding undischarged liabilities	4463.44	-	-
Cost upto project COD (A)	**4366.98**	**4366.98**	**4366.98**
Additional capitalisation			
FY 2016-17	27.72	-11.23	-11.23
FY 2017-18	0.00	237.09	237.09
FY 2018-19	68.74	222.68	222.68
Total additional capitalisation (B)	**96.46**	**448.54**	**448.54**
Total cost upto FY 2018-19 (A+B)	**4463.44**	**4815.52**	**4815.52**

4.8 BALANCE OF PLANT (BOP)

Petitioner's submission

4.8.1 SCCL claimed the additional capitalisation of Rs.37.09 Crore, Rs.73.50 Crore and Rs.-24.29 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards BoP.

Commission's View

4.8.2 The Commission, in the Tariff Order, had approved the total cost of BoP at Rs.1008.75 Crore and the cost upto project COD at Rs.835.71 Crore. This approved cost was after deducting the undischarged liabilities to the tune of Rs.29.25 Crore as on project COD. As against the approved additional capitalisation of Rs.30.32 Crore and Rs.142.72 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.37.09 Crore, Rs.73.50 Crore and Rs.(-)24.29 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. The claimed additional capitalisation of inclusive of liabilities as on COD discharged to the tune of Rs.24.95 Crore, Rs.(-)26.82 Crore and Rs.(-)54.14 Crore in FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

4.8.3 The Commission, in the Tariff Order, directed SCCL as under:

"3.5.5 .... the Commission directs SCCL to submit the compilation of all the price variation bills along with its Petition for approval of generation tariff for the next Control Period."

"3.5.7 .... the Commission directs SCCL to submit the Performance Guarantee Test Reports after completion of the same along with the amount of Liquidated Damages, if any levied, along with its Tariff Petition for the next Control Period."

4.8.4 SCCL submitted the compilation of price variation bills, the copies of Performance Guarantee Test Reports.

4.8.5 The Commission in the Tariff Order had approved the price variation of Rs.65 Crore towards BoP package. In the instant Petition, SCCL submitted the price variation of Rs.60.36 Crore. SCCL submitted that the price variation amounting to Rs.65 Crore was an estimated amount and the amount of Rs.60.36 Crore is based on actuals. SCCL submitted that the amount of Rs.2.5 Crore is to be paid post FY 2018-19. The Commission has taken note of SCCL's submissions.

4.8.6 SCCL submitted that the liquidated damages imposed for BoP contract is Rs.97.30 Crore (excluding taxes and duties) and Rs.114.81 Crore including taxes and duties. SCCL further submitted that the BoP contractor had registered disagreement to imposition of liquidated damages and the matter is sub-judice before the Arbitration Tribunal. The stakeholders submitted that the liquidated damages should be deducted from the capital cost to which SCCL replied that the liquidated damages have to be set off against the disallowance of IDC. The Commission, in its Order dated 19.06.2017 in O.P.No.9 of 2016 had disallowed IDC to the tune of Rs.323.12 Crore corresponding to the delay that was not condoned. As the Commission had disallowed IDC for delay if SCCL levies liquidated damages over and above the amount of IDC disallowed by the Commission, such excess amount shall be deducted from the capital cost.

4.8.7 SCCL claimed the BoP cost of Rs.922.01 Crore upto FY 2018-19 as against the approved total cost of Rs.1038.00 Crore (including undischarged liabilities). As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards BoP.

4.8.8 The BoP cost claimed by SCCL and approved by the Commission upto FY

2018-19 is as shown in the Table below:

Table 14: BoP cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	1038.00	-	-
Less: Undischarged liabilities	29.25	-	-
Cost excluding undischarged liabilities	1008.75	-	-
Cost upto project COD (A)	**835.71**	**835.71**	**835.71**
Additional capitalisation			
FY 2016-17	30.32	37.09	37.09
FY 2017-18	0.00	73.50	73.50
FY 2018-19	142.72	-24.29	-24.29
Total additional capitalisation (B)	**173.04**	**86.30**	**86.30**
Total cost upto FY 2018-19 (A+B)	**1008.75**	**922.01**	**922.01**

4.9 EXTERNAL WATER SUPPLY SYSTEM

Petitioner's submission

4.9.1 SCCL claimed the additional capitalisation of Rs.0.48 Crore, Rs.0.22 Crore and Rs.319.39 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards external water supply system.

Commission's View

4.9.2 The Commission, in the Tariff Order, had approved the total cost of external water supply system at Rs.406.00 Crore and the cost upto project COD at 83.48 Crore. As against the approved additional capitalisation of Rs.2.52 Crore and Rs.320.00 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.0.48 Crore, Rs.0.22 Crore and Rs.319.39 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the external water supply system cost of Rs.403.57 Crore upto FY 2018-19 as against the approved total cost of Rs.406.00 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards external water supply system.

4.9.3 The cost of external water supply system claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 15: External water supply system cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	406.00	-	-
Cost upto project COD (A)	**83.48**	**83.48**	**83.48**
Additional capitalisation			
FY 2016-17	2.52	0.48	0.48
FY 2017-18	0.00	0.22	0.22
FY 2018-19	320.00	319.39	319.39
Total additional capitalisation (B)	**322.52**	**320.09**	**320.09**
Total cost upto FY 2018-19 (A+B)	**406.00**	**403.57**	**403.57**

4.10 RAW WATER RESERVOIR

Petitioner's submission

4.10.1 SCCL claimed the additional capitalisation of Rs.2.90 Crore, Rs.5.41 Crore and Rs.3.09 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards raw water reservoir.

Commission's View

4.10.2 The Commission, in the Tariff Order, had approved the total cost of raw water reservoir at Rs.67.00 Crore and the cost upto project COD at 43.17 Crore. As against the approved additional capitalisation of Rs.5.05 Crore and Rs.18.78 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.2.90 Crore, Rs.5.41 Crore and Rs.3.09 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the raw water reservoir cost of Rs.54.57 Crore upto FY 2018-19 as against the approved total cost of Rs.67.00 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards raw water reservoir.

4.10.3 The cost of raw water reservoir claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 16: Raw water reservoir cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	67.00	-	-
Cost upto project COD (A)	**43.17**	**43.17**	**43.17**

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Additional capitalisation			
FY 2016-17	5.05	2.90	2.90
FY 2017-18	0.00	5.41	5.41
FY 2018-19	18.78	3.09	3.09
Total additional capitalisation (B)	**23.83**	**11.40**	**11.40**
Total cost upto FY 2018-19 (A+B)	**67.00**	**54.57**	**54.57**

4.11 RAILWAY SIDING

Petitioner's submission

4.11.1 SCCL claimed the additional capitalisation of Rs.322.57 Crore for FY 2018-19 towards railway siding.

Commission's View

4.11.2 The Commission, in the Tariff Order, had approved the total cost of railway siding as Rs.80.00 Crore and the cost upto project COD at Rs.0.00 Crore. As against the approved additional capitalisation of Rs.80.00 Crore SCCL claimed the additional capitalisation of Rs.322.57 Crore for FY 2018-19. SCCL submitted that the claimed cost towards railway siding is without considering the accounting for the grant claimed/received and the CCDAC grant amounting to Rs.84.19 Crore was received till 31.03.2019 against the claim of Rs.162.22 Crore.

4.11.3 As regards railway siding, SCCL's submission and Commission's ruling in the Tariff Order are as under:

"3.8.3(iii) The total estimated cost of railway siding is Rs.276 Crore. SCCL being a coal company has applied to the Coal Controller, Ministry of Coal for funds to the tune of 70% of the cost of the railway siding. The fund created out of the Stowing Excise Duty of Rs.10/MT is utilized for roads and railway lines, protective works, sand stowing operations etc. being developed in the mining areas for evacuation of coal. Normally, 70% of these works shall be paid to Coal Companies as a grant/assistance. Accordingly, SCCL, in its Petition, has claimed the cost of Railway Siding as Rs.80 Crore which was subsequently revised to Rs.113.32 Crore."

"3.8.6 SCCL in its revised submissions dated 03.04.2017 claimed the cost of railway siding as Rs.113.32 Crore in FY 2016-17. Whereas during the Public Hearing, SCCL submitted that part of land required for railway siding is under acquisition and the railway siding works will be completed by March, 2018.

3.8.7 After perusal of the submission in this regard, the Commission finds it prudent to approve the cost of Railway Siding as Rs.80 Crore in FY 2018-19, as submitted by SCCL during the Public Hearing. The Commission shall take an appropriate view on allowing shortfall, if any, in funds from the Coal Controller on this account from that envisaged in this Order during the truing up of additional capitalisation."

4.11.4 The cost of railway siding has increased from Rs.276.00 Crore to Rs.322.56 Crore. SCCL submitted the reasons for this increase as under:

- In compliance to the revised guidelines from Indian Railways, the top width of the embankment was increased from 6.85 m to 7.85 m and the bottom width was increased from 9.25 m to 10.25 m. Rock requiring blasting had increased due to these changes.
- Further, the tracks in the yards are spaced at 12 m (instead of 6 m) and the requirement of earth work quantities have increased due to this change.
- National Highways Authority of India (NHAI) had insisted for construction of RUBs on National Highway (NH) 63 with 2m x 24.20m span whereas the RUBs were originally planned to be constructed with 2m x 18.30m span.
- One additional bridge of 2m x 12.20m span was included during tendering stage for movement of dumpers at SRP-OCP.
- Railways had revised the depth of piles from 12m to 25m for the bridge on Rasulpalli vagu.
- Implementation of Goods and Services Tax (GST) w.e.f. 01.07.2017, revised royalty charges, District Mineral Foundation Trust (DMFT), State Mineral Exploration Trust (SMET), PVC etc.

4.11.5 SCCL has not submitted any supporting documents to substantiate the increase in railway siding cost from Rs.276.00 Crore to Rs.322.56 Crore. In the absence of supporting documents, the Commission does not find it prudent to approve the revised railway siding cost of Rs.322.56 Crore. As against the cost of Rs.322.57 Crore, the grant portion is Rs.162.22 Crore which works out to 50.29% of the cost whereas SCCL, in its Petition in O.P.No.9 of 2016 submitted that the grants portion would be to the extent of 70% of the cost. SCCL has not submitted any justification for the variation in grants portion. In light of the above, the Commission approves the cost of Rs.80.00 Crore towards railway siding, same as approved in the Tariff Order.

4.11.6 The cost of railway siding claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 17: Railway siding cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	80.00	-	-
Cost upto project COD (A)	**0.00**	**0.00**	**0.00**
Additional capitalisation			
FY 2016-17	0.00	0.00	0.00
FY 2017-18	0.00	0.00	0.00
FY 2018-19	80.00	322.57	80.00
Total additional capitalisation (B)	**80.00**	**322.57**	**80.00**
Total cost upto FY 2018-19 (A+B)	**80.00**	**322.57**	**80.00**

4.12 OTHER WORKS UNDERTAKEN BY SCCL

Petitioner's submission

4.12.1 SCCL claimed the additional capitalisation of Rs.16.30 Crore, Rs.57.67 Crore and Rs.30.41 for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards other works.

Commission's View

4.12.2 The Commission, in the Tariff Order, had approved the total cost of other works at Rs.246.86 Crore and the cost upto project COD at Rs.139.91 Crore. As against the approved additional capitalisation of Rs.45.56 Crore and Rs.61.39 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.16.30 Crore, Rs.57.67 Crore and Rs.30.41 for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. The item wise details of additional capitalisation claimed towards other works is discussed in the following paragraphs.

<u>Additional 400 kV Bays</u>

4.12.3 The Commission, in the Tariff Order, had approved the total cost of additional 400 kV Bays at Rs.28.69 Crore and the cost upto project COD at Rs.0.00 Crore. As against the approved additional capitalisation of Rs.28.69 Crore for FY 2016-17, SCCL claimed the additional capitalisation of Rs.28.70 Crore and Rs.2.04 for FY 2017-18 and FY 2018-19 respectively. SCCL claimed the additional 400 kV Bays cost of Rs.30.74 Crore upto FY 2018-19 as against the approved total cost of Rs.28.69 Crore. SCCL has not submitted any justification for the increase in this cost. Therefore, the Commission approves the additional 400 kV Bays cost as Rs.28.69 Crore same as approved in the Tariff Order.

4.12.4 The cost of additional 400 kV Bays claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 18: Additional 400 kV Bays cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	28.69	-	-
Cost upto project COD (A)	**0.00**	**0.00**	**0.00**
Additional capitalisation			
FY 2016-17	28.69	0.00	0.00
FY 2017-18	0.00	28.70	28.69
FY 2018-19	0.00	2.04	0.00
Total additional capitalisation (B)	**28.69**	**30.74**	**28.69**
Total cost upto FY 2018-19 (A+B)	**28.69**	**30.74**	**28.69**

Plant roads & culverts

4.12.5 The Commission, in the Tariff Order, had approved the total cost of plant roads & culverts at Rs.20.00 Crore and the cost upto project COD at Rs.11.44 Crore. As against the approved additional capitalisation of Rs.0.27 Crore and Rs.8.29 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.0.31 Crore, Rs.0.59 Crore and Rs.0.35 for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the plant roads & culverts cost of Rs.12.69 Crore upto FY 2018-19 as against the approved total cost of Rs.20.00 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards plant roads & culverts.

4.12.6 The cost of plant roads & culverts claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 19: Plant roads & culverts cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	20.00	-	-
Cost upto project COD (A)	**11.44**	**11.44**	**11.44**
Additional capitalisation			

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
FY 2016-17	0.27	0.31	0.31
FY 2017-18	0.00	0.59	0.59
FY 2018-19	8.29	0.35	0.35
Total additional capitalisation (B)	**8.56**	**1.25**	**1.25**
Total cost upto FY 2018-19 (A+B)	**20.00**	**12.69**	**12.69**

Coal transport roads

4.12.7 The Commission, in the Tariff Order, had approved the total cost of coal transport roads at Rs.56.48 Crore and the cost upto project COD at Rs.42.61 Crore. As against the approved additional capitalisation of Rs.1.50 Crore and Rs.12.37 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.3.11 Crore, Rs.(-)1.09 Crore and Rs.(-)0.68 for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the coal transport roads cost of Rs.43.95 Crore upto FY 2018-19 as against the approved total cost of Rs.56.48 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards coal transport roads.

4.12.8 The cost of coal transport roads claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 20: Coal transport roads cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	56.48	-	-
Cost upto project COD (A)	**42.61**	**42.61**	**42.61**
Additional capitalisation			
FY 2016-17	1.50	3.11	3.11
FY 2017-18	0.00	-1.09	-1.09
FY 2018-19	12.37	-0.68	-0.68
Total additional capitalisation (B)	**13.87**	**1.34**	**1.34**
Total cost upto FY 2018-19 (A+B)	**56.48**	**43.95**	**43.95**

Boundary walls

4.12.9 The Commission, in the Tariff Order, had approved the total cost of boundary walls at Rs.17.19 Crore and the cost upto project COD at Rs.16.94 Crore. As against the approved additional capitalisation of Rs.0.25 Crore, SCCL claimed the additional capitalisation of Rs.0.25 Crore for FY 2016-17. SCCL claimed the boundary walls cost of Rs.17.19 Crore upto FY 2018-19 as against the approved total cost of Rs.17.19 Crore. As the claimed cost is equal to the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards boundary walls.

4.12.10 The cost of boundary walls claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 21: Boundary walls cost upto FY 2018-19

(Rs. Crore)

Particulars	**Approved in Tariff Order**	**Claimed for true-up**	**Approved on true-up**
Total cost	17.19	-	-
Cost upto project COD (A)	**16.94**	**16.94**	**16.94**
Additional capitalisation			
FY 2016-17	0.25	0.25	0.25
FY 2017-18	0.00	0.00	0.00
FY 2018-19	0.00	0.00	0.00
Total additional capitalisation (B)	**0.25**	**0.25**	**0.25**
Total cost upto FY 2018-19 (A+B)	**17.19**	**17.19**	**17.19**

<u>Gate complex, security etc.</u>

4.12.11 The Commission, in the Tariff Order, had approved the total cost of gate complex, security etc. at Rs.5.40 Crore and the cost upto project COD at Rs.0.23 Crore. As against the approved additional capitalisation of Rs.0.20 Crore and Rs.4.97 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.0.37 Crore, Rs.0.85 Crore and Rs.0.07 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the cost of Rs.1.52 Crore upto FY 2018-19 as against the approved total cost of Rs.5.40 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards gate complex, security etc.

4.12.12 The cost of gate complex, security etc. claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 22: Gate complex, security etc. cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	5.40	-	-
Cost upto project COD (A)	**0.23**	**0.23**	**0.23**
Additional capitalisation			
FY 2016-17	0.20	0.37	0.37
FY 2017-18	0.00	0.85	0.85
FY 2018-19	4.97	0.07	0.07
Total additional capitalisation (B)	**5.17**	**1.29**	**1.29**
Total cost upto FY 2018-19 (A+B)	**5.40**	**1.52**	**1.52**

Township

4.12.13 The Commission, in the Tariff Order, had approved the total cost of township at Rs.80.00 Crore and the cost upto project COD at Rs.52.18 Crore. As against the approved additional capitalisation of Rs.13.54 Crore and Rs.14.28 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.11.32 Crore, Rs.26.80 Crore and Rs.19.23 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the township cost of Rs.109.53 Crore upto FY 2018-19 as against the approved total cost of Rs.80.00 Crore. The Commission's approval of township cost has been challenged by SCCL in its Appeal No.312 of 2017 before the Hon'ble APTEL and the Appeal is sub-judice. Therefore, the Commission does not find it prudent to revise the approved township cost of Rs.80.00 Crore. The same shall be subject to the outcome of the Appeal No.312 of 2017 pending before the Hon'ble APTEL.

4.12.14 The cost of township claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 23: Township cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	80.00	-	-
Cost upto project COD (A)	**52.18**	**52.18**	**52.18**
Additional capitalisation			
FY 2016-17	13.54	11.32	11.32
FY 2017-18	0.00	26.80	16.50
FY 2018-19	14.28	19.23	0.00
Total additional capitalisation (B)	**27.82**	**57.35**	**27.82**

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost upto FY 2018-19 (A+B)	**80.00**	**109.53**	**80.00**

Environmental impact measures

4.12.15 The Commission, in the Tariff Order, had approved the total cost of environmental impact measures at Rs.5.00 Crore and the cost upto project COD at Rs.0.79 Crore. As against the approved additional capitalisation of Rs.0.18 Crore and Rs.4.03 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.(-)0.01 Crore, Rs.0.09 Crore and Rs.0.38 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the environmental impact measures cost of Rs.1.25 Crore upto FY 2018-19 as against the approved total cost of Rs.5.00 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards environmental impact measures.

4.12.16 The cost of environmental impact measures claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 24: Environmental impact measures cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	5.00	-	-
Cost upto project COD (A)	**0.79**	**0.79**	**0.79**
Additional capitalisation			
FY 2016-17	0.18	-0.01	-0.01
FY 2017-18	0.00	0.09	0.09
FY 2018-19	4.03	0.38	0.38
Total additional capitalisation (B)	**4.21**	**0.46**	**0.46**
Total cost upto FY 2018-19 (A+B)	**5.00**	**1.25**	**1.25**

Mandatory capital expenditure under MoEF clearance

4.12.17 The Commission, in the Tariff Order, had approved the total cost towards mandatory capital expenditure under MoEF clearance at Rs.22.10 Crore and the cost upto project COD at Rs.9.45 Crore. As against the approved additional capitalisation of Rs.0.60 Crore and Rs.12.05 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of

Rs.0.60 Crore, Rs.0.68 Crore and Rs.3.11 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the mandatory capital expenditure under MoEF clearance cost of Rs.13.84 Crore upto FY 2018-19 as against the approved total cost of Rs.22.10 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards mandatory capital expenditure under MoEF clearance.

4.12.18 The mandatory capital expenditure under MoEF clearance claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 25: Mandatory capital expenditure under MoEF clearance cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	22.10	-	-
Cost upto project COD (A)	**9.45**	**9.45**	**9.45**
Additional capitalisation			
FY 2016-17	0.60	0.60	0.60
FY 2017-18	0.00	0.68	0.68
FY 2018-19	12.05	3.11	3.11
Total additional capitalisation (B)	**12.65**	**4.39**	**4.39**
Total cost upto FY 2018-19 (A+B)	**22.10**	**13.84**	**13.84**

<u>Weight bridge, fire tender etc.</u>

4.12.19 The Commission, in the Tariff Order, had approved the total cost of weigh bridge, fire tender etc., at Rs.2.00 Crore and the cost upto project COD at Rs.0.42 Crore. As against the approved additional capitalisation of Rs.1.58 Crore for FY 2018-19, SCCL claimed the additional capitalisation of Rs.0.03 Crore, and Rs.1.04 Crore for FY 2016-17 and FY 2018-19 respectively. SCCL claimed the weigh bridge, fire tender etc. cost of Rs.1.49 Crore upto FY 2018-19 as against the approved total cost of Rs.2.00 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards weigh bridge, fire tender etc.

4.12.20 The cost of weigh bridge, fire tender etc. claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 26: Cost of Weigh Bridge, fire tender etc. upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	2.00	-	-
Cost upto project COD (A)	**0.42**	**0.42**	**0.42**
Additional capitalisation			
FY 2016-17	0.00	0.03	0.03
FY 2017-18	0.00	0.00	0.00
FY 2018-19	1.58	1.04	1.04
Total additional capitalisation (B)	**1.58**	**1.07**	**1.07**
Total cost upto FY 2018-19 (A+B)	**2.00**	**1.49**	**1.49**

Furniture & office automation

4.12.21 The Commission, in the Tariff Order, had approved the total cost of furniture & office automation at Rs.5.00 Crore and the cost upto project COD at Rs.2.37 Crore. As against the approved additional capitalisation of Rs.2.63 Crore for FY 2018-19, SCCL claimed the additional capitalisation of Rs.(-)0.19 Crore, Rs.0.54 Crore and Rs.2.06 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the furniture & office automation cost of Rs.4.78 Crore upto FY 2018-19 as against the approved total cost of Rs.5.00 Crore. As the claimed cost is lower than the total cost approved, the Commission approves SCCL's claim of additional capitalisation towards furniture & office automation.

4.12.22 The cost of furniture & office automation claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 27: Furniture & office automation cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	5.00	-	-
Cost upto project COD (A)	**2.37**	**2.37**	**2.37**
Additional capitalisation			
FY 2016-17	0.00	-0.19	-0.19
FY 2017-18	0.00	0.54	0.54
FY 2018-19	2.63	2.06	2.06
Total additional capitalisation (B)	**2.63**	**2.41**	**2.41**
Total cost upto FY 2018-19 (A+B)	**5.00**	**4.78**	**4.78**

Miscellaneous expenditure

4.12.23 The Commission, in the Tariff Order, had approved the total cost towards miscellaneous expenditure at Rs.5.00 Crore and the cost upto project COD at Rs.3.48 Crore. As against the approved additional capitalisation of Rs.0.33 Crore and Rs.1.19 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.0.51 Crore, Rs.0.51 Crore and Rs.2.81 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. SCCL claimed the miscellaneous expenditure of Rs.7.31 Crore upto FY 2018-19 as against the approved total cost of Rs.5.00 Crore. SCCL has not submitted any justification for the increase in this cost. Therefore, the Commission approves the miscellaneous expenditure of Rs.5.00 Crore, same as approved in the Tariff Order.

4.12.24 The miscellaneous expenditure claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 28: Miscellaneous expenditure upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	5.00	-	-
Cost upto project COD (A)	**3.48**	**3.48**	**3.48**
Additional capitalisation			
FY 2016-17	0.33	0.51	0.51
FY 2017-18	0.00	0.51	0.51
FY 2018-19	1.19	2.81	0.50
Total additional capitalisation (B)	**1.52**	**3.83**	**1.52**
Total cost upto FY 2018-19 (A+B)	**5.00**	**7.31**	**5.00**

4.12.25 Based on the above, the cost of other works claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 29: Other works cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	246.86	-	-
Cost upto project COD (A)	**139.91**	**139.91**	**139.91**
Additional capitalisation			
FY 2016-17	45.56	16.30	16.30
FY 2017-18	0.00	57.67	47.36
FY 2018-19	61.39	30.41	6.83
Total additional	**106.95**	**104.38**	**70.49**

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
capitalisation (B)			
Total cost upto FY 2018-19 (A+B)	**246.86**	**244.29**	**210.40**

4.13 OVERHEADS

Petitioner's submission

4.13.1 SCCL claimed the additional capitalisation of Rs.31.59 Crore, Rs.5.86 Crore and Rs.(-)0.37 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards overheads.

Commission's View

4.13.2 The Commission, in the Tariff Order, had approved the total cost of overheads at Rs.334.58 Crore and the cost upto project COD at 291.10 Crore. As against the approved additional capitalisation of Rs.6.24 Crore and Rs.37.23 Crore for FY 2016-17 and FY 2018-19 respectively, SCCL claimed the additional capitalisation of Rs.31.59 Crore, Rs.5.86 Crore and Rs.(-)0.37 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. The Commission in the Tariff Order dated, had approved overhead expenses as 5% of the approved additional capitalisation for the respective year. The Commission's approval of overheads cost has been challenged by SCCL in its Appeal No.312 of 2017 before the Hon'ble APTEL and the Appeal is sub-judice. Therefore, the Commission does not find it prudent to revise the methodology of approval of overheads cost. Therefore, the Commission approves the overheads cost as lower of 5% of the approved additional capitalisation and the actual claimed for the respective year. The same shall be subject to the outcome of the Appeal No.312 of 2017 pending before the Hon'ble APTEL.

4.13.3 The cost of overheads claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 30: Overheads cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	334.58	-	-

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Cost upto project COD (A)	**291.10**	**319.50**	**291.10**
Additional capitalisation			
FY 2016-17	6.24	31.59	2.47
FY 2017-18	0.00	5.86	5.86
FY 2018-19	37.23	-0.37	-0.37
Total additional capitalisation (B)	**43.48**	**37.08**	**7.96**
Total cost upto FY 2018-19 (A+B)	**334.58**	**356.58**	**299.07**

4.14 INTEREST DURING CONSTRUCTION (IDC)

Petitioner's submission

4.14.1 SCCL claimed the additional capitalisation of Rs.17.14 Crore, Rs.21.55 Crore and Rs.(-)37.69 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively towards IDC.

Commission's View

4.14.2 The Commission, in the Tariff Order, had approved the IDC of Rs.883.63 Crore upto project COD. The Commission's approval of IDC has been challenged by SCCL in its Appeal No.312 of 2017 before the Hon'ble APTEL and the Appeal is sub-judice. Therefore, the Commission does not find it prudent to revise the approved IDC of Rs.883.63 Crore. The Commission does not find it prudent to consider the IDC after project COD claimed by SCCL.

4.14.3 The IDC claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 31: IDC upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Total cost	883.63	-	-
Cost upto project COD (A)	**883.63**	**1264.34**	**883.63**
Additional capitalisation			
FY 2016-17	0.00	17.14	0.00
FY 2017-18	0.00	21.55	0.00
FY 2018-19	0.00	-37.69	0.00
Total additional capitalisation (B)	**0.00**	**1.00**	**0.00**
Total cost upto FY 2018-	**883.63**	**1265.34**	**883.63**

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
19 (A+B)			

4.15 CAPITAL COST UPTO FY 2018-19

Commission's View

4.15.1 Based on the above, the capital cost claimed by SCCL and approved by the Commission upto FY 2018-19 is as shown in the Table below:

Table 32: Capital cost upto FY 2018-19

(Rs. Crore)

Particulars	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Cost upto project COD (A)	**6705.71**	**7114.82**	**6705.71**
Additional capitalisation			
FY 2016-17	124.85	95.62	49.37
FY 2017-18	0.00	401.50	369.64
FY 2018-19	744.69	849.06	620.60
Total additional capitalisation (B)	**869.55**	**1346.18**	**1039.60**
Total cost upto FY 2018-19 (A+B)	**7575.26***	**8461.00**	**7745.32****

** excluding undischarged liabilities as on COD amounting to Rs.443.81 Crore*
*** including liabilities as on COD discharged in FY 2016-17, FY 2017-18 and FY 2018-19*

4.16 ANNUAL FIXED CHARGES (AFC)

4.16.1 In accordance with Regulation 21 of the CERC (Terms and Conditions of Tariff) Regulations, 2014, the AFC of thermal generating station consist of recovery of the following:

a. Return on Equity (RoE);
b. Interest on loan;
c. Depreciation;
d. Interest on Working Capital (IoWC); and
e. Operation and Maintenance (O&M) expenses.

4.16.2 SCCL vide its submission dated 04.12.2019 submitted the true-up claims of AFC for FY 2016-17 to FY 2018-19. Subsequently, SCCL in replies to data gaps dated 25.02.2020 submitted the revised AFC for FY 2016-17 to FY 2018-19 rectifying the discrepancy in its computations. The Commission has considered the revised submissions dated 25.02.2020.

4.17 RETURN ON EQUITY (ROE)

Petitioner's submission

4.17.1 SCCL claimed RoE of Rs.180.13 Crore, Rs.438.11 Crore and Rs.475.08 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Commission's View

4.17.2 Regulation 19(1) of the CERC (Terms and Conditions of Tariff) Regulations, 2014 stipulates that the equity in excess of 30% of the capital cost shall be treated as normative loan. SCCL submitted the actual means of finance of additional capitalisation for FY 2016-17 to FY 2018-19. Based on the actual means of finance submitted by SCCL, the Debt Equity ratio of capital cost including additional capitalisation upto FY 2018-19 is 57.78:42.22. As the actual equity is in excess of 30%, SCCL has claimed RoE on the equity corresponding to 30% of the claimed additional capitalisation.

4.17.3 The Commission has considered the approved equity base as on COD and 30% of the approved additional capitalisation as equity addition for the respective year. The equity base claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 33: Equity base for FY 2016-17 to FY 2018-19

(Rs. Crore)

Financial Year	Approved in Tariff Order		Claimed for true-up		Approved on true-up	
	Opening Equity	Closing Equity	Opening Equity	Closing Equity	Opening Equity	Closing Equity
2016-17						
From COD of Unit 1 till COD of Unit 2	1050.57	1050.57	1114.66	1114.66	1050.57	1050.57
From COD of Unit 2 till 31.03.2017	2011.71	2049.17	2134.45	2163.13	2011.71	2026.53
2017-18	2049.17	2049.17	2163.13	2283.58	2026.53	2137.42
2018-19	2049.17	2272.58	2283.58	2538.30	2137.42	2323.60

4.17.4 Regulation 25 of the CERC (Terms and Conditions of Tariff) Regulations, 2014 stipulate that the base rate of RoE of 15.50% shall be grossed up with the effective tax rate. SCCL has considered the MAT rate of 21.34% for grossing up the base rate of RoE. SCCL submitted the justification for considering MAT rate as below.

"The book profits calculated as per section 115JB of income tax act, 1961 for computing the MAT liability for the FY 2016-17, FY 2017-18 and FY 2018-19 are mentioned below:

S. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	STPP- Profit Before Tax	155.55	576.36	539.24
2	Book profit u/s 115JB-STPP (Standalone)	155.55	580.15	700.73
3	MAT payable on above @ 21.3416% for FY 2016-18 & 21.5488% for FY 2018-19	33.20	123.81	151.00
4	Book profit/(loss) u/s 115JB – SCCL (Coal operations)	-380.80	1383.25	2179.41
5	Net Book profit/(loss) of SCCL (Coal & Power) (4+6)	-225.25	1963.40	2880.14
6	MAT liability @21.3416% for FY 2016-18 & 21.5488% for FY 2018-19	Nil	419.02	620.64
7	Net Taxable income/(Loss) of SCCL (including carry forwarded Loss)	-2441.34	-806.55	1383.80
8	Normal Tax on above @ 34.608% & 34.944% for FY 2018-19	Nil	Nil	483.55

For the FY 2016-17, the MAT payable on STPP standalone book profits worked out to Rs.33.20 Crs at the applicable rate of 21.3416%. However, SCCL has a book loss of Rs.380.80 Crs from Coal operations, computed u/s 115JB of Income Tax act, 1961. The book loss from SCCL coal operations was due to deduction of the amounts of unascertainable provisions withdrawn in arriving at book profits as per section 115JB, as the same were added back for MAT computation in earlier years on which MAT or normal tax, whichever is higher was paid in the corresponding earlier years.

Clubbing of STPP profits with Coal operations loss, has resulted in net book loss at company level for the FY 2016-17 and hence no MAT was paid. Accordingly, it shall be construed that SCCL had MAT liability on STPP profits, which was adjusted against the loss from coal operations and hence MAT shall be deemed to have been paid on STPP profits.

For the FY 2017-18, SCCL has paid MAT of Rs.424.21 Crs (including interest of 5.17 Crs). However, MAT computed on standalone STPP book profits of Rs.580.15 Crs comes to Rs.123.81 Crs. at applicable MAT rate of 21.3416%.

For the FY 2018-19, SCCL has paid MAT of Rs.628.28 Crs (including interest of 7.65 Crs). However, MAT computed on standalone STPP book profits of Rs.700.73 Crs comes to Rs.151.01 Crs., at applicable MAT rate of 21.5488%.

4.17.5 The Commission has considered the opening equity as on COD as approved in the Tariff Order. The equity portion of additional capitalisation has been considered as equivalent to 30% of the approved additional capitalisation for the respective year. The base rate of RoE of 15.50% has been grossed up with the applicable MAT rate for the respective year.

4.17.6 The RoE claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 34: RoE for FY 2016-17 to FY 2018-19

(Rs. Crore)

Financial Year	Approved in Tariff Order	Claimed for true-up	Approved on true-up
2016-17			
From COD of Unit 1 till COD of Unit 2	38.57	40.92	38.57
From COD of Unit 2 till 31.03.2017	131.54	139.21	130.81
2017-18	403.79	438.11	410.25
2018-19	425.80	475.08	440.70
Total	**999.70**	**1093.32**	**1020.33**

4.17.7 The variation in RoE claimed by SCCL and approved by the Commission is on account of the variation in equity base.

4.18 INTEREST ON LOAN

Petitioner's submission

4.18.1 SCCL claimed the interest on loan of Rs.226.01 Crore, Rs.490.99 Crore and Rs.487.24 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

4.18.2 As regards interest rate, submitted as under:

- Project loan from PFC amounting to Rs.3980 Crore was availed at the interest rate of 12.25%.
- Pursuant to the letters dated 14.11.2016, 29.12.2016 and 09.03.2017, requesting reduction in the interest rates, PFC vide its letter dated 14.03.2017 had reduced the interest rate to 9.25%.
- The interest rates claimed for FY 2016-17 to FY 2018-19 have been computing considering the sharing of savings due to loan refinancing in accordance with Regulation 26(7) of the CERC (Terms and Conditions of Tariff) Regulations, 2014.

Commission's View

4.18.3 The interest rate considered by the Commission in the Tariff Order was challenged by SCCL in its Appeal No.312 of 2017 stating that the savings due to loan refinancing had not been considered. The Appeal is sub-judice.

4.18.4 The Commission directed SCCL to submit the copy of loan agreement executed pursuant to refinancing of long-term loans. In reply SCCL submitted the correspondences regarding reduction of interest rate. SCCL submitted that no separate agreement was executed with the lender.

4.18.5 The Commission also directed SCCL to submit the computations to substantiate that the refinancing of loans has resulted in net savings in interest in compliance to Regulation 26(7) of the CERC (Terms and Conditions of Tariff) Regulations, 2014. In reply, SCCL submitted that the interest rates have reduced from 11.69% to 9.91%, 9.38% and 9.14% in FY 2016-17, FY 2017-18 and FY 2018-19 respectively and the interest rates claimed in true-up is after considering the sharing of savings on account of loan refinancing.

4.18.6 From the submissions, it is clear that only the interest rates have been reduced and this cannot be treated as loan refinancing as claimed by SCCL.

4.18.7 Regulation 19(1) of the CERC (Terms and Conditions of Tariff) Regulations, 2014 stipulates that the equity in excess of 30% of the capital cost shall be treated as normative loan. SCCL submitted the actual means of finance of additional capitalisation for FY 2016-17 to FY 2018-19. Based on the actual means of finance submitted by SCCL, the Debt Equity ratio of capital cost including additional capitalisation upto FY 2018-19 is 57.78:42.22. As the actual equity is in excess of 30%, the equity portion in excess of 30% of claimed additional capitalisation has been treated as normative loan thereby the total loan has been considered as 70% of the claimed additional capitalisation for the respective years.

4.18.8 The Commission has considered the opening loan as on COD as approved in the Tariff Order. The loan portion of additional capitalisation has been considered as equivalent to 70% of the approved additional capitalisation for the respective year. The normative repayment has been considered as equivalent to approved depreciation for the year. The Commission has considered the weighted average interest rate based on actual loan portfolio in accordance with Regulation 26 of the CERC (Terms and Conditions of Tariff) Regulations, 2014. The interest on loan has been computed on the normative average loan for the year by applying the weighted average interest rate.

4.18.9 The loan balances claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 35: Loan balances for FY 2016-17 to FY 2018-19

(Rs. Crore)

Financial Year	Approved in Tariff Order		Claimed for true-up		Approved on true-up	
	Opening Loan	Closing Loan	Opening Loan	Closing Loan	Opening Loan	Closing Loan
2016-17						
From COD of Unit 1 till COD of Unit 2	2451.33	2418.19	2600.88	2564.99	2451.33	2417.50
From COD of Unit 2 till 31.03.2017	4660.86	4635.30	4944.48	4889.31	4660.17	4579.99
2017-18	4635.30	4288.69	4889.31	4787.01	4579.99	4479.76
2018-19	4288.69	4444.69	4787.01	4967.61	4479.76	4531.41

4.18.10 The interest rates claimed by SCCL and approved by the Commission is as shown in the Table below:

Financial Year	Approved in Tariff Order	Claimed for true-up	Approved on true-up
2016-17			
From COD of Unit 1 till COD of Unit 2	10.78%	11.69%	11.69%
From COD of Unit 2 till 31.03.2017	10.78%	10.50%	9.91%
2017-18	9.21%	10.15%	9.38%
2018-19	9.21%	9.99%	9.14%

4.18.11 The interest on loan claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 36: Interest on loan for FY 2016-17 to FY 2018-19

(Rs. Crore)

Financial Year	Approved in Tariff Order	Claimed for true-up	Approved on true-up
2016-17			
From COD of Unit 1 till COD of Unit 2	48.91	56.26	53.03
From COD of Unit 2 till 31.03.2017	164.78	169.75	150.46
2017-18	410.83	490.99	424.74
2018-19	402.06	487.24	411.76
Total	**1026.59**	**1204.23**	**1040.00**

4.18.12 The variation in interest on loan claimed by SCCL and approved by the Commission is on account of variation in loan balances and interest rates.

4.19 DEPRECIATION

Petitioner's submission

4.19.1 SCCL claimed the depreciation of Rs.158.00 Crore, Rs.383.35 Crore and Rs.413.74 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Commission's View

4.19.2 The Commission has approved the depreciation in accordance with Regulation 27 of the CERC (Terms and Conditions of Tariff) Regulations, 2014 considering the approved asset base and the asset class wise depreciation rates.

4.19.3 The depreciation claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 37: Depreciation for FY 2016-17 to FY 2018-19

(Rs. Crore)

Financial Year	Approved in Tariff Order	Claimed for true-up	Approved on true-up
2016-17			
From COD of Unit 1 till COD of Unit 2	33.14	35.89	33.83
From COD of Unit 2 till 31.03.2017	112.96	122.11	114.74
2017-18	346.61	383.35	358.97
2018-19	365.29	413.74	382.78
Total	**858.00**	**955.09**	**890.31**

4.19.4 The variation in depreciation claimed by SCCL and approved by the Commission is on account of variation in GFA base.

4.20 INTEREST ON WORKING CAPITAL (IOWC)

Petitioner's submission

4.20.1 SCCL claimed IoWC of Rs.45.65 Crore, Rs.108.75 Crore and Rs.110.68 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Commission's View

4.20.2 The Commission has approved IoWC in accordance with Regulation 28 of the CERC (Terms and Conditions of Tariff) Regulations, 2014 by revising the working capital considering the AFC approved on true-up for FY 2016-17 to

FY 2018-19.

4.20.3 The IoWC claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 38: IoWC for FY 2016-17 to FY 2018-19

(Rs. Crore)

Financial Year	Approved in Tariff Order	Claimed for true-up	Approved on true-up
2016-17			
From COD of Unit 1 till COD of Unit 2	9.11	10.26	9.60
From COD of Unit 2 till 31.03.2017	32.03	35.39	32.87
2017-18	99.75	108.75	100.47
2018-19	101.21	110.68	102.13
Total	**242.10**	**265.08**	**245.06**

4.21 OPERATION AND MAINTENANCE (O&M) EXPENSES

Petitioner's submission

4.21.1 SCCL claimed O&M expenses of Rs.82.38 Crore, Rs.207.60 Crore and Rs.220.56 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Commission's View

4.21.2 Regulation 29(1) of the CERC (Terms and Conditions of Tariff) Regulations, 2014 specifies the normative O&M expenses of Rs.16.27 lakh/MW, Rs.17.30 lakh/MW and Rs.18.38 lakh/MW for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. The Commission has approved the O&M expenses considered the normative O&M expenses as specified in the CERC (Terms and Conditions of Tariff) Regulations, 2014.

4.21.3 The O&M expenses claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 39: O&M expenses for FY 2016-17 to FY 2018-19

(Rs. Crore)

Financial Year	Approved in Tariff Order	Claimed for true-up	Approved on true-up
2016-17			
From COD of Unit 1 till COD of Unit 2	18.19	18.19	18.19
From	64.19	64.19	64.19

Financial Year	Approved in Tariff Order	Claimed for true-up	Approved on true-up
COD of Unit 2 till 31.03.2017			
2017-18	207.60	207.60	207.60
2018-19	220.56	220.56	220.56
Total	**510.54**	**510.54**	**510.54**

4.22 ANNUAL FIXED CHARGES (AFC)

Commission's View

4.22.1 Based on the above, the AFC claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 40: AFC for FY 2016-17, FY 2017-18 & FY 2018-19

(Rs. Crore)

Particulars	From COD of Unit 1 till COD of Unit 2			From COD of Unit 2 till 31.03.2017		
	Approved in Tariff Order	Claimed for true-up	Approved on true-up	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Return on Equity	38.57	40.92	38.57	131.54	139.21	130.81
Interest on Loan	48.91	56.26	53.03	164.78	169.75	150.46
Depreciation	33.14	35.89	33.83	112.96	122.11	114.74
Interest on Working Capital	9.11	10.26	9.60	32.03	35.39	32.87
O&M expenses	18.19	18.19	18.19	64.19	64.19	64.19
Annual Fixed Charges	**147.91**	**161.53**	**153.21**	**505.50**	**530.64**	**493.06**

Particulars	FY 2017-18			FY 2018-19		
	Approved in Tariff Order	Claimed for true-up	Approved on true-up	Approved in Tariff Order	Claimed for true-up	Approved on true-up
Return on Equity	403.79	438.11	410.25	425.80	475.08	440.70
Interest on Loan	410.83	490.99	424.74	402.06	487.24	411.76
Depreciation	346.61	383.35	358.97	365.29	413.74	382.78
Interest on Working Capital	99.75	108.75	100.47	101.21	110.68	102.13
O&M expenses	207.60	207.60	207.60	220.56	220.56	220.56
Annual Fixed Charges	**1468.58**	**1628.80**	**1502.03**	**1514.92**	**1707.30**	**1557.93**

4.22.2 The Commission directs SCCL to bill the differential AFC recoverable/refundable for the period from FY 2016-17 to FY 2018-19 as per the AFC approved after true-up approved in this Order.

4.23 OTHER CHARGES

Petitioner's submission

4.23.1 SCCL claimed other charges of Rs.1.11 Crore, Rs.6.42 Crore and Rs.4.15 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Commission's View

4.23.2 Regulation 29(2) of the CERC (Terms and Conditions of Tariff) Regulations, 2014 provides for allowance of water charges and capital spares separately.

The other charges claimed by SCCL are towards water charges and capital spares.

4.23.3 Regulation 29(2) of the CERC (Terms and Conditions of Tariff) Regulations, 2014 provides for allowance of water charges subject to prudence check. SCCL has claimed the total water charges of Rs.4.69 Crore for the period from FY 2016-17 to FY 2018-19 and submitted the copies of letters dated 28.03.2019 and 20.05.2019 addressed to the Irrigation Department. SCCL also requested the Commission to allow the water charges of Rs.3.63 Crore for the period from 01.12.2016 to 31.08.2018 in its submissions on billing disputes to which the DISCOMs submitted that all the monthly energy bills including supplementary bills towards taxes & duties as per the Tariff Regulations have been paid and sought the reconciliation of the sums received by SCCL. In light of the above, the Commission has not approved any amount towards water charges in this Order. **The Commission directs SCCL to take up the issue of water charges with the DISCOMs**.

4.23.4 Regulation 29(2) of the CERC (Terms and Conditions of Tariff) Regulations, 2014 provides for allowance of capital spares in true-up subject to submission of appropriate justification for incurring the same and substantiating that the same has not been funded by compensatory allowance or special allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernisation. SCCL has claimed the total capital spares of Rs.6.99 Crore for the period from FY 2016-17 to FY 2018-19 and submitted the list of capital spares along with justification for procurement of the same. As per the detailed list, the total value of capital spares procured during the period from FY 2016-17 to FY 2018-19 amounts to Rs.8.34 Crore. SCCL has not substantiated that the claimed capital spares have not been claimed as a part of additional capitalisation. Therefore, the Commission has not approved the capital spares claimed for FY 2016-17 to FY 2018-19.

4.24 BILLING DISPUTES

4.24.1 SCCL submitted that it has raised power bills during the period from FY 2016-17 to FY 2018-19 as per the Commission’s Tariff Order however, some of the bills have not been admitted by the DISCOMs as shown below:

Table 41: Billing disputes raised by SCCL

(Rs. Crore)

Sl. No.	Particulars	Period	Amount
1	Additional coal bills	FY 2018-19	121.43
2	Billing on actual metered energy	FY 2018-19	17.75
3	Incentive	FY 2017-18	29.11
4	Water charges	01.12.2016 to 31.08.2018	3.63
5	Other charges	FY 2016-17, FY 2017-18 and FY 2018-19	1.16
	Total		**173.09**

4.24.2 SCCL's submissions on each of the above items and Commission's ruling is detailed in the following paragraphs:

Petitioner's submission

Additional coal bills

4.24.3 SCCL was allotted Naini coal block in Odisha to meet the coal requirements of the project. As production from Naini coal block has not yet started, Bridge Linkage was approved by the Standing Committee of MoC. The coal has been supplied to the project from different nearby mines of SCCL under the Bridge Linkage. The coal bills for supply to the project were raised by SCCL (Mines Division) as per the MoU entered into between SCCL (Mines Division) and TPP. Such MoU was of similar nature entered into by SCCL with other power generating companies. SCCL submitted the copy of MoU entered into between SCCL and NTPC dated 30.06.2018.

4.24.4 As per the MoU, SCCL charges 20% premium to Bridge Linkage customers for supply upto 75% of annual agreed quantity over and above the regular supply price charged to generating companies having linked coal mine. For supply of additional quantum of coal beyond 75% of agreed quantity, the price on which 20% premium is computed gets changed to coal price applicable for non-power sector and as the base price for non-power sector is higher, the coal price for supply beyond 75% of agreed quantity increases significantly.

4.24.5 The agreed coal quantum as per the MoU for the project was 6.00 MMT per annum and the actual quantum received during FY 2018-19 was 5.08 MMT which is more than 75% of the agreed quantum. This resulted in additional impact of Rs.118.18 Crore in coal bills and resulted in increase in energy charges for FY 2018-19. The bill for the incremental energy charges of Rs.121 Crore was raised on 08.06.2019 along with the auditor certificate. SCCL requested the Commission to allow these additional coal bills raised in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014.

Billing on actual metered energy

4.24.6 The entire electricity generated from the project is being supplied to the DISCOMs for which the monthly billing is done as per the JMRs. The power purchase bills have been admitted based on scheduled generation instead of actual energy injected into the grid. Scheduled generation refers to the quantum of energy scheduled on day ahead basis by SLDC whereas actual energy is the metered energy injected into the grid. The scheduled generation and actual generation cannot be the same at most of the times due to variations in connected load, frequency and varying coal quality which are beyond the generators control. In order to deal with these variations, commercial mechanism known as Unscheduled Interchange (UI) or Deviation Settlement Mechanism (DSM) has been developed. Clause 14.1 of the Regulation No.1 of 2008 provides for notifying the charges for UI but any such notification has not been issued. In the absence of the same, energy bills for state generators in Telangana were allowed on JMRs. SCCL requested the Commission to consider the same methodology of accepting the energy injected into the grid for admittance of energy bills of the project as it is followed in respect of other state generators like KTPP, till intra-State ABT is implemented in Telangana.

Incentive

4.24.7 The Commission in the Tariff Order had approved the billing of incentive for higher PLF in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014. The actual PLF for FY 2017-18 was 91.09% as against the target of 85%. The incentive for higher PLF to the tune of Rs.29.11 Crore for FY 2017-18 was billed considering the actual energy injected as per the JMRs instead of scheduled generation, in the absence of intra-State ABT mechanism in Telangana. SCCL requested the Commission to allow the incentive bill raised as per CERC (Terms and Conditions of Tariff) Regulations, 2014 following prudent commercial practice prevalent for intra-State generators in the absence of DSM.

Water charges

4.24.8 The requisite water for power generation is drawn from rivers Godavari and Pranahita through 1 TMC and 2 TMC water supply schemes respectively. Accordingly, the water charges amounting to Rs.3.63 Crore were paid to GoTS for the water drawn for the period from 01.12.2016 to 31.08.2018. SCCL requested the Commission to allow the same in accordance with Regulation 29(2) of the CERC (Terms and Conditions of Tariff) Regulations, 2014.

Other charges

4.24.9 SCCL submitted that it has raised some bills amounting to Rs.1.16 Crore for the period from FY 2016-17 to FY 2018-19 as per the provisions of the PPA and the same had not been admitted by the DISCOMs.

Commission's View

4.24.10 The Commission has gone through the submissions of the Petitioner and stakeholders including the DISCOMs regarding the billing disputes. The Commission is not inclined to take up the issues of billing disputes in these proceedings. **The Commission directs SCCL to file a separate Petition on the billing disputes**.

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CHAPTER 5
ANALYSIS AND CONCLUSION ON BUSINESS PLAN FOR FY 2019-20 TO FY 2023-24

5.1 REGULATORY PROVISIONS

5.1.1 Clause 7 of the Regulation No.1 of 2019 stipulates the filing of Business Plan along with Capital Investment Plan for a duration covering at least the entire Control Period from FY 2019-20 to FY 2023-24. The Business Plan shall cover the following:

i. Generation Planning and forecasts
ii. Capital Investment Plan
iii. Future performance targets
iv. Proposed efficiency improvement measures
v. Compliance status of environmental norms
vi. Saving in operating costs
vii. Financial statements for the Control Period duration
viii. Any other new measures for generation business

5.1.2 SCCL's submissions and the Commission's analysis on the Business Plan for the Control Period from FY 2019-20 to FY 2023-24 is detailed in the following paragraphs.

5.1.3 In addition to the above constituents of Business Plan, SCCL has submitted the details regarding its manpower, training for its personnel, safety management and CSR. The Commission has taken note of the same and opines that the Commission's view is not required to be given on such additional details submitted by SCCL.

5.2 FUTURE PERFORMANCE TARGETS

Petitioner's submission

5.2.1 The norms of operation proposed for the Control Period from FY 2019-20 to FY 2023-24 are as under:

Table 42: Norms of operation proposed by SCCL for Control Period from FY 2019-20 to FY 2023-24

Parameter	Unit	Proposed
Normative Annual Plant Availability Factor (NAPAF)	%	80%
Normative Annual PLF	%	80%
Auxiliary Consumption	%	7.00%; Additional 1.5% for FGD from

Parameter	Unit	Proposed
		FY 2021-22 onwards
Gross Station Heat Rate	kcal/kWh	2400
Secondary Fuel Oil Consumption	ml/kWh	2.00
Transit Loss	%	0.80%

5.2.2 The recommendations of CEA on operating norms for the period from FY 2019-20 to FY 2023-24 have been furnished to CERC vide letter dated 10.12.2018. The broad outlines of the recommendations are as under:

Table 43: CEA recommendations on operating norms

Parameter	Unit	CEA Recommendation
Normative Annual Plant Availability Factor (NAPAF)	%	First Financial Year after COD: 68.5% Pit head stations: 83%
Normative Annual PLF	%	Same as NAPAF
Auxiliary Consumption	%	6.25% (with Induced Draft Cooling Tower)
Gross Station Heat Rate	kcal/kWh	1.05xDesign Heat Rate
Secondary Fuel Oil Consumption	ml/kWh	0.5
Transit Loss	%	1.2% to 1.5%

5.2.3 The CEA recommendations have to be considered by SERCs in determination of operating norms for the period from FY 2019-20 to FY 2023-24.

5.2.4 Currently, there are 3 Units of 600 MW capacity in the State, one Unit at KTPP and two Units at SCCL. All the three Units have similar technical configuration, have achieved COD in FY 2016-17 and supply power under the respective PPAs. All the three Units are required to have uniform operating norms whereas Regulation No.1 of 2019 specifies different norms for KTPP Unit and SCCL Units. The norms of operation have been proposed by adopting the specified norms of KTPP Stage II in Regulation No.1 of 2019. FGD plant is expected to be commissioned in January 2021 and the additional auxiliary consumption of 1.5% for FGD has been proposed from FY 2021-22 onwards.

Commission's View

5.2.5 The norms of operation of a thermal generating station comprise of NAPAF, NAPLF, auxiliary consumption, Station Heat Rate, Secondary Fuel Oil Consumption and Transit loss.

5.2.6 SCCL has adopted the norms of operation specified for KTPP Stage II in Regulation No.1 of 2019. The Commission has gone through the rationale submitted by SCCL for adoption of norms of operation specified for KTPP Stage II. In reply to a specific query, SCCL submitted that there was no variation in norms of operation for KTPP Stage II and Singareni TPP in the Draft Regulations and therefore the issue had not arisen. SCCL submitted that the norm setting process is dynamic as witnessed in variation in operating norms specified in CERC (Terms and Conditions of Tariff) Regulations, 2014 and CERC (Terms and Conditions of Tariff) Regulations, 2019. SCCL requested the Commission to relook into the issue and approve comparable operating norms for the project. The Commission in exercise of powers conferred under the Act, has issued the Regulation No.1 of 2019 after due procedure. Therefore, the Commission does not find it prudent to adopt the norms of operation specified for KTPP Stage II for Singareni TPP.

5.2.7 SCCL has claimed the additional auxiliary consumption of 1.50% for FGD system with expected commissioning in January 2021, which was subsequently revised to FY 2022-23. The Commission is of the view that the it would be premature to approve additional auxiliary consumption for FGD system at this stage. Clause 7.19(l) of the Regulation No.1 of 2019 provides for approaching the Commission for change in operational parameters such as change in normative auxiliary consumption on account of installation of FGD. In accordance with Clause 27 of the Regulation No.1 of 2019, SCCL is required to file the Mid-Term Review Petition by 30.11.2022. **The Commission directs SCCL to submit its proposal of additional auxiliary consumption for FGD in its Mid-Term Review Petition for the consideration of the Commission**.

5.2.8 The norms of operation approved by the Commission for the Control Period from FY 2019-20 to FY 2023-24 is as shown in the Table below:

Table 44: Norms of operation for Control Period from FY 2019-20 to FY 2023-24

Parameter	Unit	Norm	Proposed	Approved
Normative Annual Plant Availability Factor	%	85%	80%	85%
Normative Annual PLF	%	85%	80%	85%
Auxiliary Consumption	%	5.75%	7.00%	5.75%

Parameter	Unit	Norm	Proposed	Approved
Gross Station Heat Rate	kcal/kWh	2303.88	2400	2303.88
Secondary Fuel Oil Consumption	ml/kWh	0.50	2.00	0.50
Transit Loss	%	0.80%	0.80%	0.80%

5.3 GENERATION PLANNING AND FORECASTS

Petitioner's submission

5.3.1 The production from Naini coal block is expected to commence in the year 2021 after obtaining all the necessary clearances and establishing the required infrastructure. As per the mining plan, the peak rated capacity is expected to be achieved by the year 2023. The Standing Linkage Committee has extended the Bridge Linkage for the project upto the year 2023 in accordance with the mining plan. Coal under the Bridge Linkage shall be sourced from the existing mines of SCCL in Telangana using rail mode of transportation. A separate application shall be filed for determination of input coal price from Naini coal block after commencement of production and supply to the project, as per the provisions of the CERC (Terms and Conditions of Tariff) Regulations, 2019. SCCL is also considering the possibility of swapping Naini coal block considering the distance from the project.

5.3.2 Based on the performance during the Control Period from FY 2016-17 to FY 2017-18, the estimated PLF for the Control Period from FY 2019-20 to FY 2023-24 is 91.09%. As per the prescription of the Original Equipment Manufacturer, each Unit is required to be overhauled in alternate years, for a period of 45 days. The annual overhaul plan for the Control Period from FY 2019-20 to FY 2023-24 is as under:

Table 45: Annual overhaul plan submitted by SCCL

Financial Year	Unit 1	Unit 2
2019-20	01.07.2019 to 14.08.2019	-
2020-21	-	01.05.2020 to 14.06.2020
2021-22	01.05.2021 to 14.06.2021	-
2022-23	-	01.07.2022 to 14.08.2022
2023-24	01.07.2023 to	-

Financial Year	Unit 1	Unit 2
	14.08.2023	

5.3.3 For achieving the estimated PLF of 91.09% with the above annual overhauling plan, the Units are required to be operated at higher PLF of 97.1% to achieve the overall PLF of 91.09%. Considering no constraint in obtaining primary inputs for power generation and the outages as 2%, the PLF of 97% appears to be achievable.

5.3.4 The generation forecast for the Control Period from FY 2019-20 to FY 2023-24 is as under:

Table 46: Generation forecast submitted by SCCL

Financial Year	Gross Generation	Auxiliary Consumption	Net Generation
	MU	%	MU
2019-20	9601.78	7.00%	8929.65
2020-21	9575.54	7.00%	8905.26
2021-22	9575.54	7.33%	8873.45
2022-23	9575.54	8.50%	8761.62
2023-24	9601.78	8.50%	8785.63

5.3.5 SCCL submitted the month wise generation forecast for each year of the Control Period from FY 2019-20 to FY 2023-24.

Commission's View

5.3.6 In reply to a specific query, SCCL submitted that the coal is procured from SRP mines in MGR mode and although coal shortage is a rare phenomenon for the project, sometimes, due to high unloading time of rakes, coal was procured from nearby mines on non-MGR mode.

5.3.7 SCCL has submitted the generation planning and forecast for the Control Period from FY 2019-20 to FY 2023-24 considering the annual overhaul of each Unit in alternate years. SCCL has not considered any shutdown period separately for the works being undertaken for complying with revised emission norms. SCCL submitted that the work of in-furnace modifications for NOx compliance requires shutdown of Units for final attachments with the boiler which shall be planned as per the annual overhaul schedules.

5.3.8 The generation forecast approved by the Commission at NAPLF of 85% and auxiliary consumption of 5.75% is as shown in the Table below:

Table 47: Generation forecast approved by the Commission

Financial Year	Gross Generation	Auxiliary Consumption	Net Generation
	MU	%	MU
2019-20	8959.68	5.75%	8444.50
2020-21	8935.20	5.75%	8421.43
2021-22	8935.20	5.75%	8421.43
2022-23	8935.20	5.75%	8421.43
2023-24	8959.68	5.75%	8444.50

5.3.9 This approval of generation forecast does not bar SCCL from generating at PLF higher than 85%.

5.4 CAPITAL INVESTMENT PLAN

Petitioner's submission

5.4.1 The Capital Investment Plan for the Control Period from FY 2019-20 to FY 2023-24 has been prepared in accordance with Clause 7(b) of the Regulation No.1 of 2019. SCCL submitted that it could not project the capital expenditure for the Control Period from FY 2019-20 to FY 2023-24 as per Ind AS 16 and requested the Commission for submission of the same during Mid-Term Review and End of Control Period review for consideration of the Commission.

5.4.2 The Phase II (1x800 MW) of the project is under active consideration by SCCL's management. SCCL requested the Commission for submission of capital investment for Phase II after receiving all necessary approvals. SCCL in its Petition submitted the Capital Investment Plan for the amount of Rs.1195.57 Crore which has been subsequently revised to Rs.1348.57 Crore.

5.4.3 The summary of Capital Investment Plan and capitalisation plan proposed for the Control Period from FY 2019-20 to FY 2023-24 is as under:

Table 48: Capital Investment Plan and capitalisation plan submitted by SCCL

(Rs. Crore)

Particulars	Capital Investment	Capitalisation					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
FGD system	645.32	0.00	0.00	0.00	645.32	0.00	**645.32**
In-furnace modifications for NOx compliance	38.00	0.00	0.00	19.00	19.00	0.00	**38.00**
O&M modules	301.18	0.00	153.10	82.96	65.12	0.00	**301.18**
Railway works	284.04	0.00	42.94	161.50	79.60	0.00	**284.04**
Erection works in main plant	55.89	0.00	26.91	20.98	8.00	0.00	**55.89**
Township civil works	24.15	0.00	7.81	10.20	6.14	0.00	**24.15**
Total	**1348.57**	**0.00**	**230.75**	**294.64**	**823.18**	**0.00**	**1348.57**

FGD system

5.4.4 MoEF&CC, vide its notification dated 07.12.2015 brought out the amendments to Schedule – I of Environment (Protection) Rules, 1986 for emission norms applicable to TPPs. In accordance with the above notification, the following emission norms are applicable for Singareni TPP:

Table 49: Emission norms applicable for Singareni TPP

Pollutants	Emission norm
Particulate Matter (PM)	50 mg/Nm^3
Sulphur Dioxide (SO_2)	200 mg/Nm^3
Oxides of Nitrogen	300 mg/Nm^3
Mercury	0.03 mg/Nm^3

5.4.5 These emission norms were required to be met within two years from the date of notification which was later revised as per MoPs letter dated 13.10.2017, in view of the technical challenges. As per the revised timeline, the FGD for Units 1&2 was required to be put into operation by December 2019. Singareni TPP sought extension of time from December 2019 to December 2022 for complying with SO_2 emission norm.

5.4.6 SCCL is currently complying with the emission norms of PM and mercury. SCCL has appointed NTPC for preparing the feasibility report and DPR for complying with SO_2 emission norm. SCCL has submitted the copy of DPR prepared by NTPC for FGD system. The total capital investment proposed for FGD system is Rs.645.32 Crore and capitalisation of the same has been claimed for FY 2022-23.

In-furnace modifications for NOx compliance

5.4.7 The boilers of Units 1&2 were designed for NOx level of 750 mg/Nm^3 and the measured value of NOx emission has been closer to design value. MoEF&CC, vide its notification dated 07.12.2015 stipulated the emission norm of NOx as 300 mg/NM^3. The NOx emission norm is proposed to be achieved by in-furnace modifications based on the recommendation of OEM. This is a cost-effective measure compared to other measures such as Selective Non-Catalytic Reduction (SNCR) and Selective Catalytic Reduction (SCR) which require chemical treatment by reagents. The combustion modification is required to be carried out as a part of in-furnace modification with the objective of reduction of NOx generated to the required level during the combustion in boiler without effecting the designed boiler steam and flue gas parameters at various loads, under various mills combination for the range of coals. The total capital investment proposed for in-furnace modifications is Rs.38.00 Crore and capitalisation of Rs.19.00 Crore has been claimed for FY 2021-22 and FY 2022-23 respectively.

O&M modules

5.4.8 Some of the generating stations which have been supplied BHEL Units of 600 MW have recently experienced major breakdowns. The past experiences show that the OEM requires a high lead time of around one year to supply new equipment in case of failures. This high lead time is attributable to import of input materials and arranging the required machining and assembling activity. Any shutdown due to failure of equipment will impact the cash flows of both SCCL and the DISCOMs by way of under recovery of AFC and procurement from alternate sources respectively. Therefore, the O&M modules viz., HP module, IP module, LP rotor, generator stator, rotor and excited assembly have been proposed to be procured to cater to the needs of both the Units effectively.

5.4.9 The total capital investment proposed for O&M modules is Rs.301.18 Crore and capitalisation of Rs.153.10 Crore, Rs.82.96 Crore, and Rs.65.12 Crore has been claimed for FY 2020-21, FY 2021-22 and FY 2022-23 respectively. SCCL requested the Commission to approve the same as the initial spares approved in the Tariff Order are within the specified ceiling limit.

Railway works

5.4.10 The railway siding work was commissioned in FY 2018-19 and most of the coal for power generation is received through railway mode. Currently, the railway locos are running with diesel engines and manually managed signalling system. The railway authorities have advised to arrange for overhead electrification system along with necessary signalling and telecommunication works to ensure safe running of railway wagons. The railway electrification works would be taken up as per the cabinet decision of GoI dated 27.09.2018. The signalling & telecommunication work is proposed to be undertaken for handling rake traffic which is expected to further increase with addition of 800 MW unit, for ensuring safety and saving in man-hours and expenditure.

5.4.11 The associated works related to construction of railway siding such as construction of drainage system along the railway track is proposed to be undertaken as per the original drawing.

5.4.12 Further, special tools and capital spares related to railway system to mitigate the incidents of wagons derailment have been proposed to be procured during the Control Period.

5.4.13 The total capital investment proposed for railway works is Rs.284.04 Crore and capitalisation of Rs.42.94 Crore, Rs.161.50 Crore, and Rs.79.60 Crore has been claimed for FY 2020-21, FY 2021-22 and FY 2022-23 respectively.

Erection works in main plant

5.4.14 The total capital investment proposed for erection works in main plant is Rs.55.89 Crore and capitalisation of Rs.26.91 Crore, Rs.20.98 Crore, and Rs.8.00 Crore has been claimed for FY 2020-21, FY 2021-22 and FY 2022-23 respectively. SCCL submitted the item wise justification for the proposed capitalisation under this head.

Township civil works

5.4.15 The total capital investment proposed for township civil works is Rs.24.15 Crore and capitalisation of Rs.7.81 Crore, Rs.10.20 Crore, and Rs.6.14 Crore has been claimed for FY 2020-21, FY 2021-22 and FY 2022-23 respectively.

Financing Plan

5.4.16 SCCL proposed the financing of proposed capital investment in the debt equity ratio of 70:30.

Commission's View

5.4.17 Clause 3.10.2 of the Regulation No.1 of 2019 stipulates that the Capital Investment Plan shall show, separately, ongoing projects that will spill over the Control Period and new projects that will commence in the Control Period but may be completed within or beyond it. SCCL submitted the details of spill over of ongoing works from the previous Control Period from FY 2016-17 to

FY 2018-19 to the current Control Period from FY 2019-20 to FY 2023-24. However, SCCL has not considered the additional capitalisation pertaining to this spill over items in its tariff computations for the Control Period from FY 2019-20 to FY 2023-24.

5.4.18 Clause 7(b) of the Regulation No.1 of 2019 stipulates that the Capital Investment Plan shall include the following details:

- Purpose of investment
- Broad technical specifications of the proposed investment and supporting details.
- Capital structure.
- Capitalisation schedule with milestones for completion.
- Financing plan with sources of investment.
- Physical targets.
- Cost-benefit analysis.
- Prioritisation of proposed investments etc.

5.4.19 SCCL submitted the item wise details of capitalisation schedule, purpose of investment, broad technical specifications of the proposed investment with supporting documents, benefits of the proposed investment, priority and Regulation under which the investment has been claimed. SCCL claimed the additional capitalisation for the Control Period from FY 2019-20 to FY 2023-24 under Clause 7.19.1 and also Clause 26.4, for some of the items, of the Regulation No.1 of 2019.

5.4.20 Clause 7.19 of the Regulation No.1 of 2019 stipulates as under:

"7.19. ***Additional Capitalisation***
7.19.1. The capital expenditure actually incurred or projected to be incurred, on the following counts within the Original Scope Of Work, after the COD and up to the Cut-Off Date, may be admitted by the Commission subject to Prudence Check. Any additional capitalization after COD needs prior approval of the Commission:-
........."

5.4.21 Regulation No.1 of 2019 defines cut-off date as 31st March of the year ending after two years of the year of start of commercial operation of a project and in case a project is declared to be under commercial operation in the last quarter of a year, it shall mean 31st March of the year ending after three years of the year of start of such commercial operation. The project has achieved COD on 02.12.2016 and accordingly, the cut-off date is 31.03.2019. The capital investment and the additional capitalisation claimed by SCCL is beyond the original scope of work and after the cut-off date. The additional capitalisation beyond the original scope of work and after the cut-off date is not allowable in accordance with Clause 7.19.1 reproduced above.

5.4.22 Clause 26.4 of the Regulation No.1 of 2019 stipulates as under:

"26.4 ***Power of relaxation***
The Commission may in public interest and for reasons to be recorded in writing, relax any of the provision of these Regulations."

5.4.23 The power of relaxation must be exercised sparingly and for sufficient reasons. The Regulation gives discretion to the Commission to relax the provisions of the Regulations on circumstances of the case and such a case has to be exception to the general rule. There has to be sufficient reason to justify relaxation which has to be exercised only in the exceptional case where exercise of the discretion would be in public interest.

5.4.24 In view of the above, the Commission's approval of the Capital Investment Plan and capitalisation plan for the Control Period from FY 2019-20 to FY 2023-24 is detailed below.

FGD system

5.4.25 MoEF&CC vide its notification dated 07.12.2015 has revised the SO_2 emission norm from 600 mg/Nm^3 to 200 mg/Nm^3. SCCL has claimed the capital investment towards FGD system for complying with the revised emission norm under Clause 7.19.1(e) and 7.19.1(l) of the Regulation No.1 of 2019. The DISCOMs submitted that the proposed capital investment is not allowable stating the following:

i. The Environmental Clearance of Singareni TPP mandated to make specific provision of space for installation of FGD equipment in future. The Environmental Clearance also mandated for allocation of separate funds for implementation of environmental protection measures as part of project cost and such funds shall not be diverted for other purposes. SCCL has not complied with this condition and the capital investment for FGD has been claimed separately which falls beyond the original scope of work and after the cut-off date.

ii. MoP vide its letter dated 30.05.2018 clarified that the MoEF&CC notification dated 07.12.2015 is of the nature of Change in Law event except for TPPs where such requirement of pollution control system was mandated under the Environmental Clearance or envisaged otherwise before the notification of amendment rules. FGD installation was envisaged in the Environmental Clearance of Singareni TPP and hence the proposed capital investment is not allowable.

iii. SCCL has not issued any Change in Law notice under the provisions of the PPA.

iv. PSERC in its Order dated 21.12.2018 rejected the claim of the generator namely M/s TSPL to install FGD under Change in Law as FGD installation was already envisaged in the Environmental Clearance of that project and same rationale applies to Singareni TPP having identical Environmental Clearance.

5.4.26 The reliance placed by the DISCOMs on case laws is misplaced as the matter dealt in those cases was pertaining to tariff based competitive bidding projects unlike Singareni TPP whose tariff is determined in accordance with the Commission's Regulations.

5.4.27 In accordance with Clause 7.19.1 of the Regulation No.1 of 2019 the capital investment claimed for FGD system is not allowable as the same is beyond the original scope of work and after cut-off date. SCCL has not claimed relaxation in Clause 7.19.1 in its claim of capital investment for FGD system. However, the Commission deems it appropriate to decide on the issue of whether the power of relaxation can be invoked in the instant case or not. The FGD system for complying with SO_2 emission norm was initially required to be completed by December 2017 which was later extended upto December 2019 and further extension has been sought upto December 2022.

5.4.28 As the target date for complying with SO_2 emission norm was deferred by the competent authority and such uniform dispensation was given across the country, the Commission deems it a fit case to exercise the power of relaxation of Clause 7.19.1 regarding the criteria for allowing additional capitalisation i.e., within the original scope of work and upto the cut-off date for allowing the capital investment for FGD system beyond the original scope of work and after the cut-off date. Clause 7.19.1(l) provides for capital expenditure for complying with statutory norms for Environment in accordance with the appropriate notifications of MoEF&CC. Therefore, the capital investment for FGD system is allowable under Clause 7.19.1(l) of the Regulation No.1 of 2019. The Commission vide its Order dated 08.02.2020 accorded in-principal approval for undertaking the works for complying with revised emission norms. The Commission hereby confirms the said approval.

5.4.29 As FGD is still under implementation stage across the country, in the absence of any yardstick on market trends to compare the cost estimates of SCCL, the Commission is not expressing any opinion on the cost estimates at this stage. The Commission understands that SCCL is in the process of awarding the works of procurement and installation of FGD system through competitive process. The Commission expects such competitive procurement to yield the most economical prices aligned to market trends. The Commission shall carry out the prudence check of the cost of FGD system in true-up for the relevant year after commissioning of the same.

In-furnace modifications for NOx compliance

5.4.30 MoEF&CC vide its notification dated 07.12.2015 has introduced NOx emission norm of 300 mg/Nm^3. The Units are designed for NOx emission levels of 750 mg/NM^3. SCCL has claimed the capital investment for complying with the NOx emission norm under Clause 7.19.1(e) and 7.19.1(l) of the Regulation No.1 of 2019. The DISCOMs submitted that the NOx emission norm has been revised from 300 mg/NM^3 to 450 mg/NM^3 and the capital investment is not required to be allowed under this head as the project is complying with the emission norm of 450 mg/Nm^3. SCCL submitted that the emission norm of 450 mg/Nm^3 has not yet attained finality. The Commission finds merit in SCCL's submission in this regard. The maximum NOx emission levels submitted by SCCL for FY 2017-18, FY 2018-19 and FY 2019-20 are higher than 300 mg/Nm^3.

5.4.31 In accordance with Clause 7.19.1 of the Regulation No.1 of 2019 the capital investment claimed for complying with NOx emission norm is not allowable as the same is beyond the original scope of work and after cut-off date. SCCL has not claimed relaxation in Clause 7.19.1 in its claim of capital investment. However, in line with the approval for FGD system, the Commission deems it a fit case to exercise the power of relaxation of Clause 7.19.1 regarding the criteria for allowing additional capitalisation i.e., within the original scope of work and upto the cut-off date for allowing the capital investment for NOx compliance beyond the original scope of work and after the cut-off date. Clause 7.19.1(l) provides for capital expenditure for complying with statutory norms for Environment in accordance with the appropriate notifications of

MoEF&CC. Therefore, the capital investment for NOx compliance is allowable under Clause 7.19.1(l) of the Regulation No.1 of 2019. The Commission vide its Order dated 08.02.2020 accorded in-principal approval for undertaking the works for complying with revised emission norms. The Commission hereby confirms the said approval.

5.4.32 The Commission is not expressing any opinion on the cost estimates at this stage. The Commission shall carry out the prudence check of the cost in true-up for the relevant year after commissioning of the same.

O&M modules

5.4.33 The Commission has gone through SCCL's submissions regarding the capital investment proposed for O&M modules. SCCL has claimed the capital investment for O&M modules under Clause 7.19.1(c) and 7.19.1(k) of the Regulation No.1 of 2019. In accordance with Clause 7.19.1 of the Regulation No.1 of 2019 the capital investment for O&M modules is not allowable as the same is beyond the original scope of work and after cut-off date. SCCL has not claimed relaxation in Clause 7.19.1 in its claim of capital investment. However, the Commission deems it appropriate to decide on the issue of whether the power of relaxation can be invoked in the instant case or not. It is pertinent to mention that SCCL had appointed NTPC for providing consultancy services and SCCL made the following submissions in O.P.No.9 of 2016 regarding the same:

"3.10.3 ....
(iii) Regarding the cost of consultancy & Engineering, SCCL submitted the following:

a. SCCL is a coal mining company that has ventured into power generation business.

b. M/s NTPC Ltd. is the largest power generation company in India with installed capacity of more than 32,000 MW and BHEL is the main equipment supplier for most of its generating stations. NTPC is very much conversant with the equipment supplied by BHEL and other related working modalities.

c. The services of NTPC have been utilized for pre & post award works including preparation of tender specifications for BTG and BoP, techno commercial evaluation of bids, pre-award discussions with BHEL, supervision of construction activities, inspection services and review of O&M manuals, testing and commissioning documents.
........."

5.4.34 From the above, the prime criteria for taking consultancy services of NTPC was its operational experience with BHEL Units. SCCL has already procured mandatory spares of critical auxiliaries under the BTG package. The consumers cannot be unduly burdened for the acts of omission on part of the Petitioner. The Commission does not find any merit in the reliance placed by SCCL on CEA advisory and the same does not amount of Change in Law as submitted by SCCL. In view of the above, the Commission does not find it prudent to exercise the power of relaxation of Clause 7.19.1 for allowing capital investment for O&M modules.

Railway works

5.4.35 The Commission has gone through the details of railway works and justification submitted by SCCL for the same. In accordance with Clause 7.19.1 of the Regulation No.1 of 2019 the capital investment for railway works is not allowable as the same is after cut-off date. The consumers cannot be unduly burdened for the acts of omission on part of the Petitioner. In view of the above, the Commission does not find it prudent to exercise the power of relaxation of Clause 7.19.1 for allowing capital investment for railway works.

Erection works in main plant

5.4.36 The Commission has gone through the details of erection works in main plant and justification submitted by SCCL for the same. In accordance with Clause 7.19.1 of the Regulation No.1 of 2019 the capital investment for erection works in main plant is not allowable as the same is after cut-off date. The consumers cannot be unduly burdened for the acts of omission on part of the Petitioner. In view of the above, the Commission does not find it prudent to exercise the power of relaxation of Clause 7.19.1 for allowing capital investment for erection works in main plant.

Township civil works

5.4.37 The Commission has gone through the details of township civil works and justification submitted by SCCL for the same. In accordance with Clause 7.19.1 of the Regulation No.1 of 2019 the capital investment for township civil works is not allowable as the same is after cut-off date. The consumers cannot be unduly burdened for the acts of omission on part of the Petitioner. In view of the above, the Commission does not find it prudent to exercise the power of relaxation of Clause 7.19.1 for allowing capital investment for township civil works.

5.4.38 In accordance with Clause 7.8 of the Regulation No.1 of 2019, in case the capital expenditure is required for emergency work which has not been approved in the capital investment plan, SCCL shall submit an application (containing all relevant information along with reasons justifying the emergency nature of the proposed work) seeking approval by the Commission. SCCL may take up the work prior to the approval by the Commission provided that the emergency nature of the scheme has been approved by its Board of Directors. SCCL shall submit the pending details required as per Clause 7.1 within 10 days of the submission of the application for emergency work.

<u>Financing Plan</u>

5.4.39 The Commission has taken note of SCCL's submission regarding the financing of the capital investment in the debt equity ratio of 70:30.

5.4.40 In accordance with Clause 7.19.4 of the Regulation No.1 of 2019, the Commission shall consider the impact of additional capitalisation on tariff during Mid-Term Review or tariff determination for the next Control Period as the case may be.

5.5 PROPOSED EFFICIENCY IMPROVEMENT MEASURES

Petitioner's submission

5.5.1 The norms are specified for the operational norms of Availability, specific oil consumption, station heat rate and auxiliary consumption. The following measures are proposed in efficiency improvement in the operational parameters of the project:

Table 50: Proposed efficiency improvement measures

<table>
<tr><th>Sl. No.</th><th>Operational parameter</th><th>Efficiency improvement measures</th></tr>
<tr><td>1</td><td>Availability</td><td rowspan="2">▪ Necessary engineering modifications, Root cause analysis of machine tripping.
▪ Carrying out trip analysis.
▪ Implementing trip analysis recommendations.</td></tr>
<tr><td>2</td><td>Specific oil consumption</td></tr>
<tr><td>3</td><td>Station Heat Rate</td><td>▪ Combustion optimisation i.e., monitoring unburnt carbon in bottom ash and fly ash.</td></tr>
</table>

Sl. No.	Operational parameter	Efficiency improvement measures
		▪ Maintaining %O_2 and Air Pre-Heater (APH) inlet, monitoring Suspended Particulate Matter (SPM), SOx, NOx, CO_2 at ID fan outlet. ▪ Maintaining process parameters viz., main steam temperature, pressure, HRH temperature, condenser back pressure, RH spray, HPH outlet feed water temperatures etc. to design value. ▪ Identification of passing in high energy drains and rectification of the same on opportunity basis. ▪ Identification of Boiler Feed Pump (BFP) recirculation valve passing, deaerator overflow valve, deaerator drain valve passing and rectifying the same during opportunity. ▪ Monitoring and ensuring zero leakages of air, water and steam.
4	Auxiliary consumption	▪ Monitoring of loading of all HT and LT drives and identifying the reasons of high loading and taking corrective actions on opportunity basis. ▪ Increasing the conveyor belt utilisation factor of Coal Handling Plant (CHP) and avoiding idle running of coal conveyors. ▪ %O_2 mapping of Flue Gas (FG) duct for identifying any air-in leakages. ▪ Monitoring of air (instrument and service), water (DM and raw water) and steam leakages; ▪ Optimisation of running hours of drives mainly in BoP area.

5.5.2 In addition to the above measures, the following measures have been proposed:

- Monthly Unit-wise review on main drivers of operating performances such as boiler efficiency, turbine heat rate, coal mill fineness.
- Identification of reasons/factors based on gaps in performance and corrective actions.
- Energy and Technical Audit by external agency in FY 2019-20 for identification of further improvement possibilities. The external audit is required to be undertaken under the Perform Achieve Trade (PAT) scheme under which Singareni TPP is a Designated Consumer (DC) of PAT-IV cycle having Registration No.TPP0217TS.

Commission's View

5.5.3 The Commission has taken note of the proposed efficiency improvement measures proposed by SCCL. The Commission directs SCCL to submit the status of the efficiency improvement measures implemented by SCCL and the results of the same in its Mid-Term Review Petition.

5.6 COMPLIANCE STATUS OF ENVIRONMENTAL NORMS

Petitioner's submission

5.6.1 The emission levels of SOx, NOx, mercury and opacity submitted by SCCL is as under:

Table 51: Emission level of SOx submitted by SCCL

(mg/Nm^s)

Financial Year	Design value	Unit 1		Unit 2	
		Maximum	Minimum	Maximum	Minimum
2016-17	Not specified	2409	809.3	2507	1184
2017-18		2502	1716	2100	1737
2018-19		1800	1201	1997	1625

Table 52: Emission level of NOx submitted by SCCL

(mg/Nm^s)

Financial Year	Design value	Unit 1		Unit 2	
		Maximum	Minimum	Maximum	Minimum
2016-17	750	421	148	431	114
2017-18		304	275	427	271
2018-19		303	276	333	217

Table 53: Emission level of mercury submitted by SCCL

(mg/Nm^s)

Financial Year	Design value	Unit 1		Unit 2	
		Maximum	Minimum	Maximum	Minimum
2016-17	0.03	0.0007	0.0002	0.0087	0.0004
2017-18		0.019	0.001	0.025	0.008
2018-19		0.016	0.005	0.017	0.003

Table 54: Emission level of opacity submitted by SCCL

(mg/Nm^s)

Financial Year	Design value	Unit 1		Unit 2	
		Maximum	Minimum	Maximum	Minimum
2016-17	50	68.9	45.7	61.6	45.2
2017-18		52	37.8	52	33.4
2018-19		47.8	40.8	48.6	38.1

5.6.2 SCCL submitted that the emission levels of mercury and opacity are within the stipulated emission norms. The capital investment has been proposed for compliance to the emission norms of SOx and NOx.

5.6.3 The coal based TPPs have to achieve fly ash utilisation target of 100% as per the MoEF's notification dated 03.11.2009. Fly ash for this purpose includes all kinds of ash generated such as ash in ESP, dry fly ash, bottom ash or pond ash. Further, the MoEF clearance for the project stipulates 100% fly ash utilisation from fourth year of operation. The unutilised ash of one period, if any, is permitted to be utilised in the ensuing years over and above 100% level of utilisation for the current year.

5.6.4 The fly ash generated from the project was used in cement plants, brick units, open cast mines of SCCL and manufacturing activity of fly ash-based products. The fly ash was also used for reclamation of low-lying areas by back filling in pit-heads. The bottom ash was utilised in the underground mines of SCCL. The ash utilisation rate was 88%, 91% and 106% for FY 2016-17, FY 2017-18 and FY 2018-19 (till January 2019) respectively. Effective ash management is an ongoing process and would be a key driver for complying with the norm of 100% fly ash utilisation.

Commission's View

5.6.5 The Commission has taken note of compliance status to environmental norms submitted by SCCL. The Commission has approved the capital investment towards FGD system and in-furnace modifications for complying with SO_2 and NOx emission norms.

5.7 SAVING IN OPERATING COSTS

Petitioner's submission

5.7.1 SCCL submitted the saving in operating costs of Rs.3.43 Crore and Rs.17.52 Crore for FY 2016-17 and FY 2017-18 respectively. SCCL submitted the non-tariff income of Rs.4.79 Crore, Rs.11.15 Crore and Rs.15.87 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Commission's View

5.7.2 In accordance with Clause 7.2 of the Regulation No.1 of 2019, SCCL was required to submit the saving in operating costs for the Control Period from FY 2019-20 to FY 2023-24 whereas SCCL has submitted the saving in operating costs for the Control Period from FY 2016-17 to FY 2018-19.

5.8 FINANCIAL STATEMENTS

Petitioner's submission

5.8.1 The financial statements have been prepared for SCCL as a whole for each year of the Control Period from FY 2019-20 to FY 2023-24. The financial statements include balance sheet, profit and loss account and cash flow statement. The financials of the generating station have not been prepared separately as the same have been considered in the consolidated financials of SCCL. The financial projections have been submitted in compliance of Clause 7 of the Regulation No.1 of 2019 considering the proposed Capital Investment Plan and MYT which may act as guidance/projection to the financials of the generating station.

Commission's View

5.8.2 The Commission has taken note of SCCL submissions in this regard.

5.9 OTHER NEW MEASURES FOR GENERATION BUSINESS

Petitioner's submission

5.9.1 Thermal power plants are required to be equipped with an efficient maintenance process for operations in order to achieve the stipulated operational norms. The critical business processes involved in the maintenance are preventive maintenance, corrective maintenance (to correct a break down condition), opportunity maintenance (maintenance done by exploiting the opportunity of shutdown condition of the plant) and predictive maintenance (condition-based monitoring). The maintenance effort is required to be enhanced by adopting automatic procedures to avoid human errors and resultant losses. The primary activities in any maintenance work are procurement of material and services, work clearance management (permit system), maintenance and refurbishment process.

5.9.2 The plant maintenance module is one of the packages under Enterprise Resource Planning (ERP) and is a well-recognised semi-automated maintenance management process used by prominent generating companies such as NTPC. This module is used at various levels in the decision-making process and helps in reducing the downtime and associated cost of machine downtime. This new initiative is expected to provide the deliverables from FY 2020-21 while the fine tuning of the system and adoption of the same by O&M

executives may require another 1-2 years.

5.9.3 The existing lighting in the main plant and colony area comprising of sodium vapour lamps and compact fluorescent lamps is proposed to be replaced with LEDs which will result in savings in annual power consumption to the tune of 8.704 MU. The replacement would cost Rs.5 Crore. SCCL requested the Commission to allow one-time investment towards the same.

Commission's View

5.9.4 The Commission has taken note of SCCL's submission in this regard.

Contd…

CHAPTER 6
ANALYSIS AND CONCLUSION ON MYT FOR FY 2019-20 TO FY 2023-24

6.1 REGULATORY PROVISIONS

6.1.1 The tariff for sale of electricity from a thermal generating station shall comprise of two parts namely, AFC and Energy Charges (for recovery of primary and secondary fuel cost). SCCL submitted the tariff proposals for FY 2019-20 to FY 2023-23 in its MYT Petition. Subsequently, SCCL in replies to datagaps dated 25.02.2020 submitted the revised tariff proposals for FY 2019-20 to FY 2023-24. The Commission has considered the revised submissions dated 25.02.2020. SCCL's submissions and Commission's analysis on MYT for the Control Period from FY 2019-20 to FY 2023-24 is detailed in the following paragraphs.

6.1.2 In accordance with Clause 7.19.4 of the Regulation No.1 of 2019, the Commission shall consider the impact of additional capitalisation on tariff during Mid-Term Review or tariff determination for the next Control Period as the case may be.

6.2 ANNUAL FIXED CHARGES (AFC)

6.2.1 The AFC shall comprise the following elements:

i. Depreciation;
ii. Interest and finance charges on loan;
iii. Interest on working capital;
iv. O&M expenses;
v. Return on Equity; Minus
vi. Non-Tariff Income;

6.3 DEPRECIATION

Petitioner's submission

6.3.1 SCCL has claimed the depreciation of Rs.437.35 Crore, Rs.443.02 Crore, Rs.456.87 Crore, Rs.486.19 Crore and Rs.507.48 Crore for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

6.3.2 SCCL requested the Commission to approve AAD of Rs.12.84 Crore for FY 2022-23 to meet the loan repayment obligation as per the loan agreement.

Commission's View

6.3.3 The Commission has approved the depreciation in accordance with Clause 10 of the Regulation No.1 of 2019 considering the approved GFA on true-up for FY 2018-19. In accordance with Clause 7.19.4 of the Regulation No.1 of 2019, the additional capitalisation has not been considered for tariff computations and the same shall be considered during Mid-Term Review or tariff determination for the next Control Period, as the case may be.

6.3.4 The depreciation claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 55: Depreciation for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Approved
2019-20	437.35	400.36
2020-21	443.02	400.36
2021-22	456.87	400.36
2022-23	486.19	400.36
2023-24	507.48	400.36
Total	**2330.92**	**2001.80**

6.3.5 The variation in depreciation claimed by SCCL and approved by the Commission is on account of the variations in GFA base.

6.3.6 The Commission does not find merit in the SCCL's request to approve AAD to meet the loan repayment obligation as the tariff determination is done on normative basis.

6.4 INTEREST AND FINANCE CHARGES ON LOAN

Petitioner's submission

6.4.1 SCCL has claimed the interest on loan of Rs.484.39 Crore, Rs.447.73 Crore, Rs.420.59 Crore, Rs.412.40 Crore and Rs.391.11 Crore for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

6.4.2 The interest rate has been considered as the weighted average rate of interest for actual loan portfolio for FY 2018-19 adjusted for the sharing of savings on account of refinancing.

Commission's View

6.4.3 The Commission has approved the interest and finance charges on loan in accordance with Clause 12 of the Regulation No.1 of 2019. The outstanding loan balance approved on true-up for FY 2018-19 has been considered as the opening loan balance for FY 2019-20. The approved depreciation has been considered as the normative repayment for the year. The weighted average interest rate of the actual loan portfolio has been considered as the rate of interest. The interest on loan has been calculated on the normative average loan balance for the year by applying the weighted average rate of interest. SCCL has not claimed any finance charges for the Control Period from FY 2019-20 to FY 2023-24.

6.4.4 The loan balances claimed by SCCL and considered by the Commission is as shown in the Table below:

Table 56: Loan balances for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed		Approved	
	Opening Loan	Closing Loan	Opening Loan	Closing Loan
2019-20	4967.61	4530.26	4531.41	4131.05
2020-21	4530.26	4248.76	4131.05	3730.69
2021-22	4248.76	3998.12	3730.69	3330.33
2022-23	3998.12	4088.17	3330.33	2929.97
2023-24	4088.17	3580.69	2929.97	2529.61

6.4.5 From SCCL's submissions regarding the interest rate, it is clear that only the interest rates have been reduced and this cannot be treated as loan refinancing as claimed by SCCL. The Commission has considered the interest rate of 9.14% as against the claim of 10.20%.

6.4.6 The interest and finance charges claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 57: Interest and finance charges on loan for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Approved
2019-20	484.39	395.83
2020-21	447.73	359.24
2021-22	420.59	322.65
2022-23	412.40	286.06
2023-24	391.11	249.48
Total	**2156.22**	**1613.26**

6.4.7 The variation in interest and finance charges claimed by SCCL and approved by the Commission is on account of the variations in loan balances and the interest rates.

6.5 INTEREST ON WORKING CAPITAL (IoWC)

Petitioner's submission

6.5.1 SCCL has claimed IoWC of Rs.96.92 Crore, Rs.103.86 Crore, Rs.112.23 Crore, Rs.123.21 Crore and Rs.135.06 Crore for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

6.5.2 SCCL has also claimed the IoWC of Rs.0.40 Crore for FY 2021-22, FY 2022-23 and FY 2023-24 towards additional cost of limestone, O&M expenses and maintenance spares for FGD system.

Commission's View

6.5.3 The Commission has approved IoWC in accordance with Clause 13 of the Regulation No.1 of 2019. In accordance with Clause 7.19.4 of the Regulation No.1 of 2019, the additional capitalisation has not been considered for tariff computations and the same shall be considered during Mid-Term Review or tariff determination for the next Control Period, as the case may be. Further, the Commission has not considered the IoWC towards the additional cost of limestone, O&M expenses and maintenance spares for FGD system and the same shall be considered at the time of true-up in accordance with the provisions of the Regulations.

6.5.4 The working capital requirement has been computed considering the following:

- Cost of coal towards stock corresponding to 30 days generation corresponding to target Availability.
- Cost of coal for 30 days of generation corresponding to target Availability.
- Cost of secondary fuel oil for two months of generation corresponding to target Availability.
- Maintenance spares @ 20% of the O&M expenses.
- O&M expenses for one month.
- Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on target Availability.
- Minus payables for fuel (including secondary fuel oil) to the extent of thirty days of the cost of fuel computed at target Availability.

6.5.5 The rate of IoWC has been considered as 10.05% which is equivalent to the Bank Rate plus 150 basis points as on filing date.

6.5.6 The IoWC claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 58: IoWC for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Approved
2019-20	96.92	80.40
2020-21	103.86	80.04
2021-22	112.23	79.84
2022-23	123.21	79.65
2023-24	135.06	79.63
Total	**571.29**	**399.56**

6.5.7 The variation in IoWC claimed by SCCL and approved by the Commission is on account of variation in working capital.

6.6 O&M EXPENSES

Petitioner's submission

6.6.1 SCCL has claimed O&M expenses of Rs.229.01 Crore, Rs.242.51 Crore, Rs.256.37 Crore, Rs.277.84 Crore and Rs.291.40 Crore for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

6.6.2 SCCL has also claimed additional O&M expenses of Rs.12.91 Crore and Rs.0.76 Crore for FGD system and NOx mitigation system respectively for FY 2021-22, FY 2022-23 and FY 2023-24.

Commission's View

6.6.3 The Commission has gone through the computation of O&M expenses submitted by SCCL based on the actual expenses for FY 2016-17, FY 2017-18 and FY 2018-19. The Commission observed some computational errors in the same wherein the methodology specified in the Regulations has been applied incorrectly.

6.6.4 The O&M expenses comprises of (i) employee cost, (ii) R&M expenses and (iii) A&G expenses. Clause 19 of the Regulation No.1 of 2019 stipulates the methodology for determination of O&M expenses. The Commission's approval of O&M expenses for the Control Period from FY 2019-20 to FY 2023-24 has been detailed in the following paragraphs. In accordance with Clause 7.19.4 of the Regulation No.1 of 2019, the additional capitalisation has not been considered for tariff computations and the same shall be considered during Mid-Term Review or tariff determination for the next Control Period, as the case may be.

Employee cost:

6.6.5 Clause 19.2 of the Regulation No.1 of 2019 stipulates as under:

*"19.2 **Employee Cost (EMPn)***

Employee cost shall be computed as per the approved norm escalated by CPI, adjusted by provisions for expenses beyond the control of the Generating Entity and one time expected expenses, such as recovery /adjustment of Terminal Benefits, implications of pay commission, arrears and interim relief, governed by the following formula

EMPn = (EMPb X CPI Inflation) + Provision

Where:

EMPn: Employee expense for the Year "n";

EMPb: Employee expense as per the preceding Year;

For the first year of Control Period, expense shall be the average of the trued-up employee expenses after adding/deducting the share of efficiency gains/losses, for the immediately preceding Control Period, excluding abnormal, if any, subject to Prudence Check by the Commission.

CPI Inflation is the point to point change in the Consumer Price Index for Industrial Workers (all India) as per Labour Bureau, Government of India, as reduced by efficiency factor of 1% for immediately preceding Year;

CPI index source for one-month lag: Ministry of Statistics – GOI provided that in case CPI Inflation is a negative number, the escalation/ change shall be 0%.

Provision refers to provision for expenses beyond control of the Generating Entity and expected one-time expenses as specified above."

6.6.6 As per the above, the EMPb for FY 2019-20 shall be the average of the trued-up employee expenses after adding/deducting the share of efficiency gains/losses, for the immediately preceding Control Period i.e., FY 2016-17 to FY 2018-19, excluding abnormal, if any, subject to Prudence Check by the Commission.

6.6.7 The Commission had approved the composite normative O&M expenses for the Control Period from FY 2016-17 to FY 2018-19 without sharing of any gains/losses. Therefore, the Commission has worked out the employee cost out of the total approved O&M expenses for FY 2016-17, FY 2017-18 and FY 2018-19 considering the proportion of actual employee cost to the total O&M expenses for the respective years. As the Units were not in operation for full year in FY 2016-17, the Commission has excluded the employee cost for FY 2016-17 and considered the average employee cost for FY 2017-18 and FY 2018-19 as EMPb for FY 2019-20.

6.6.8 The employee cost for FY 2019-20 and subsequent years of the Control Period has been computed by considering the CPI Inflation of 1.04 based on point-to-point change in CPI for industrial workers as per Labour Bureau, GoI for FY 2018-19 and thereafter reducing by an efficiency factor of 1%.

6.6.9 SCCL has claimed the provision equivalent to 5% of employee cost for FY 2019-20 for each year of the Control Period. The provision over and above the normative employee cost has been provided for expenses beyond the control of generating entity and one-time expected expenses such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and interim relief. SCCL has not submitted any justification for its claim of provision in addition to the normative employee cost. Therefore, the Commission has not approved any amount towards provision in addition to the normative employee cost.

6.6.10 The computation of employee cost approved by the Commission is as shown in the Table below:

Table 59: Employee cost computed for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	EMPb	CPI Inflation	Provision	EMPn
2019-20	88.00	1.04	0.00	**91.91**
2020-21	91.91	1.04	0.00	**95.99**
2021-22	95.99	1.04	0.00	**100.25**
2022-23	100.25	1.04	0.00	**104.70**
2023-24	104.70	1.04	0.00	**109.34**
Total	**-**	**-**	**-**	**502.17**

6.6.11 The employee cost claimed by SCCL and computed by the Commission in accordance with Clause 19.2 of the Regulation No.1 of 2019 is as shown in the Table below:

Table 60: Employee cost for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Computed in accordance with Clause 19.2
2019-20	95.36	91.91
2020-21	102.38	95.99
2021-22	109.95	100.25

Financial Year	Claimed	Computed in accordance with Clause 19.2
2022-23	118.09	104.70
2023-24	126.87	109.34
Total	**552.65**	**502.17**

R&M expenses:

6.6.12 Clause 19.3 of the Regulation No.1 of 2019 stipulates as under:

*"19.3. **Repairs and Maintenance Expense (R&Mn)***
The expense shall be calculated as percentage (as per the norm defined) of Opening Gross Fixed Assets for the Year governed by following formula:

R&Mn = Kn X GFAn X WPI Inflation

Where:

R&Mn: Repairs & Maintenance expense for n^{th} Year;

GFAn: Opening Gross Fixed Assets for n^{th} Year;

Kn: 'K' is the immediate preceding Control Period average (expressed in %) governing the relationship between R&M and Gross Fixed Assets (GFA);

WPI Inflation: point to point change in Wholesale Price Index (WPI) for immediately preceding Year;

Provided that in case WPI inflation is a negative number, the escalation/change shall be 0%.

Source for WPI – As published by Office of Economic Adviser – GOI"

6.6.13 The Commission had approved the composite normative O&M expenses for the Control Period from FY 2016-17 to FY 2018-19. Therefore, the Commission has worked out the R&M expenses out of the total approved O&M expenses for FY 2016-17, FY 2017-18 and FY 2018-19 considering the proportion of actual R&M expenses to the total O&M expenses for the respective years.

6.6.14 The 'K' factor has been considered as 1.04% which is the average percentage of R&M expenses upon opening GFA for the Control Period from FY 2016-17 to FY 2018-19. The R&M expenses for each year of the Control Period has been arrived at by multiplying the approved opening GFA for the respective year with the 'K' factor of 1.04% and WPI Inflation.

6.6.15 The computation of R&M expenses computed by the Commission is as shown in the Table below:

Table 61: R&M expenses computed for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Kn	GFAn	WPI Inflation	R&Mn
2019-20	1.04%	7745.32	1.04	**83.67**
2020-21	1.04%	7745.32	1.09	**87.26**
2021-22	1.04%	7745.32	1.13	**91.00**
2022-23	1.04%	7745.32	1.18	**94.90**
2023-24	1.04%	7745.32	1.23	**98.96**
Total	-	-	-	**455.79**

6.6.16 The R&M expenses claimed by SCCL and computed by the Commission in accordance with Clause 19.3 of the Regulation No.1 of 2019 is as shown in the Table below:

Table 62: R&M expenses for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Computed in accordance with Clause 19.3
2019-20	94.34	83.67
2020-21	98.95	87.26
2021-22	103.28	91.00
2022-23	114.54	94.90
2023-24	117.15	98.96
Total	**528.25**	**455.79**

A&G expenses

6.6.17 Clause 19.4 of the Regulation No.1 of 2019 stipulates as under:

*"19.4. **Administrative & General Expense (A&Gn)***

A&G expense shall be computed as per the norm escalated by the inflation factor and adjusted by provisions for confirmed initiative (IT etc. initiatives as proposed by the Generating Entity and validated by the Commission) or other expected one-time expenses, and shall be governed by the following formula:

A&Gn = A&Gfo * Inflation Factor) Provision

Where:

A&Gn: A&G expense for the Year "n";

A&Gfo: For the first Year of the Control Period, it shall be the average of the audited A&G expense for the immediately preceding 3 Financial Years if available, and for subsequent Years it shall be the preceding Year escalated by the inflation factor;

Inflation Factor: is the sum of the following:

> *point to point change in the Wholesale Price Index (WPI) numbers as per Office of Economic Advisor of Government of India for immediately Year reduced by an efficiency factor of 1% multiplied by 0.5.*

> *point to point change in Consumer Price Index for Industrial Workers (all India) as per Labour Bureau, Government of India in the previous year, as reduced by an efficiency factor of 1% multiplied by 0.5.*

Provided that in case inflation Factor is a negative number, the escalation/ change shall be 0%.

Provision: Cost for initiatives or other one-time expenses as proposed by the Generating Entity and validated by the Commission."

6.6.18 Clause 19.6 of the Regulation No.1 of 2019 stipulates as under:

"19.6. Any expenditure on account of license fee, initial or renewal, fee for determination of tariff and audit fee shall be allowed on actual basis, over and above the A&G expenses approved by the Commission."

6.6.19 As per the above, the A&Gfo for FY 2019-20 shall be the average of the audited A&G expenses for the immediately preceding 3 Financial Years i.e., FY 2016-17 to FY 2018-19. As the Units were not in operation for full year in FY 2016-17, the Commission has excluded the audited A&G expenses for FY 2016-17 and considered the average A&G expenses for FY 2017-18 and FY 2018-19 as A&Gfo for FY 2019-20.

6.6.20 The A&G expenses for FY 2019-20 and subsequent years of the Control Period has been computed by considering the Inflation Factor of 1.04 based on point-to-point change in CPI for industrial workers as per Labour Bureau, GoI and point-to-point change in WPI as Office of Economic Advisor, GoI for FY 2018-19 and applying the efficiency factor of 1% and multiplication factor of 0.5% as per the Regulations.

6.6.21 SCCL has claimed the provision equivalent to 5% of A&G expenses for FY 2019-20 for each year of the Control Period. The provision over and above the normative A&G expenses has been provided for initiatives or other one-time expenses. SCCL has not submitted any justification for its claim of provision in addition to the normative A&G expenses. Therefore, the Commission has not approved any amount towards provision in addition to the normative A&G expenses.

6.6.22 The computation of A&G expenses computed by the Commission is as shown in the Table below:

Table 63: A&G expenses computed for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	A&Gfo	Inflation Factor	Provision	A&Gn
2019-20	29.53	1.04	0.00	**30.67**
2020-21	30.67	1.04	0.00	**31.85**
2021-22	31.85	1.04	0.00	**33.08**

Financial Year	A&Gfo	Inflation Factor	Provision	A&Gn
2022-23	33.08	1.04	0.00	**34.36**
2023-24	34.36	1.04	0.00	**35.68**
Total	**-**	**-**	**-**	**165.64**

6.6.23 The A&G expenses claimed by SCCL and computed by the Commission in accordance with Clause 19.4 of the Regulation No.1 of 2019 is as shown in the Table below:

Table 64: A&G expenses for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Computed in accordance with Clause 19.4
2019-20	39.31	30.67
2020-21	41.18	31.85
2021-22	43.15	33.08
2022-23	45.21	34.36
2023-24	47.38	35.68
Total	**216.23**	**165.64**

6.6.24 Clause 19.6 of the Regulation No.1 of 2019 provides for allowing expenses on account of license fee, initial or renewal, fee for determination of tariff and audit fee shall be allowed on actual basis, over and above the A&G expenses approved by the Commission. SCCL has not claimed any amount in this regard.

6.6.25 Clause 19.1 of the Regulation No.1 of 2019 stipulates as under:

"The O&M expenses for each year of the Control Period shall be approved based on the formula shown below

O&Mn = (R&Mn + EMPn + A&Gn) x 99%

.........."

6.6.26 Based on the above, the O&M expenses claimed by SCCL and approved by the Commission for FY 2019-20 to FY 2023-24 is as shown in the Table below:

Table 65: O&M expenses for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed				Approved				
	Employee cost	R&M expenses	A&G expenses	Total	Employee cost	R&M expenses	A&G expenses	Total	O&M expenses approved
					(i)	(ii)	(iii)	(iv)=(i)+(ii)+(iii)	(v)=(iv)x99%
2019-20	95.36	94.34	39.31	**229.01**	91.91	83.67	30.67	**206.24**	**204.18**
2020-21	102.38	98.95	41.18	**242.51**	95.99	87.26	31.85	**215.09**	**212.94**
2021-22	109.95	103.28	43.15	**256.37**	100.25	91.00	33.08	**224.32**	**222.08**
2022-23	118.09	114.54	45.21	**277.84**	104.70	94.90	34.36	**233.95**	**231.61**
2023-24	126.87	117.15	47.38	**291.40**	109.34	98.96	35.68	**243.99**	**241.55**
Total	**552.65**	**528.25**	**216.23**	**1297.13**	**502.17**	**455.79**	**165.64**	**1123.60**	**1112.36**

6.7 RETURN ON EQUITY (ROE)

Petitioner's submission

6.7.1 SCCL has claimed RoE of Rs.501.51 Crore, Rs.508.35 Crore, Rs.523.92 Crore, Rs.557.05 Crore and Rs.581.45 Crore for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

6.7.2 The rate of RoE has been considered as 19.76% by grossing up the base rate of 15.50% with the MAT rate of 21.55%.

Commission's View

6.7.3 The Commission has approved RoE in accordance with Clause 11 of the Regulation No.1 of 2019. The approved equity on true-up for FY 2018-19 has been considered as the equity for FY 2019-20. The rate of RoE has been considered as 18.78% by grossing up the base rate of 15.50% with the MAT rate of 17.47%.

6.7.4 The equity base claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 66: Equity base for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed		Approved	
	Opening Equity	Closing Equity	Opening Equity	Closing Equity
2019-20	2538.30	2538.30	2323.60	2323.60
2020-21	2538.30	2607.53	2323.60	2323.60
2021-22	2607.53	2695.91	2323.60	2323.60
2022-23	2695.91	2942.87	2323.60	2323.60
2023-24	2942.87	2942.87	2323.60	2323.60

6.7.5 The RoE claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 67: RoE for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Approved
2019-20	501.51	436.40
2020-21	508.35	436.40
2021-22	523.92	436.40
2022-23	557.05	436.40
2023-24	581.45	436.40
Total	**2672.28**	**2181.98**

6.8 NON-TARIFF INCOME (NTI)

Petitioner's submission

6.8.1 SCCL has claimed NTI of Rs.0.37 Crore for each year of the Control Period from FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24.

Commission's View

6.8.2 Clause 16(a) of the Regulation No.1 of 2019 provides the tentative list of items that constitute NTI. The actual NTI for FY 2016-17, FY 2017-18 and FY 2018-19 is Rs. 4.70 Crore, Rs. 11.15 Crore and Rs. 15.87 Crore respectively. The Commission has provisionally considered average of NTI for the period from FY 2016-17 to FY 2018-19 and escalated the same upto FY 2019-20 by the annual escalation of 30%. The Commission has not considered any further escalation of NTI during the remaining years of Control Period.

6.8.3 The NTI claimed by SCCL and approved by the Commission is as shown in the Table below:

Table 68: NTI for FY 2019-20 to FY 2023-24

(Rs. Crore)

Financial Year	Claimed	Approved
2019-20	0.37	17.92
2020-21	0.37	17.92
2021-22	0.37	17.92
2022-23	0.37	17.92
2023-24	0.37	17.92
Total	**1.84**	**89.60**

6.9 ANNUAL FIXED CHARGES (AFC)

Commission's View

6.9.1 Based on the above, the AFC claimed by SCCL and approved by the Commission is as shown in the Tables below:

Table 69: AFC for FY 2019-20 to FY 2023-24

(Rs. Crore)

Particulars	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	437.35	400.36	443.02	400.36	456.87	400.36
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Loan	484.39	395.83	447.73	359.24	420.59	322.65
Interest on Working Capital	96.92	80.40	103.86	80.04	112.23	79.84
Interest on Working Capital for FGD system	0.00	0.00	0.00	0.00	0.40	0.00
O&M expenses	229.01	204.18	242.51	212.94	256.37	222.08
O&M expenses for FGD system	0.00	0.00	0.00	0.00	12.91	0.00
O&M expenses for NOx mitigation system	0.00	0.00	0.38	0.00	0.76	0.00

Particulars	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Return on Equity	501.51	436.40	508.35	436.40	523.92	436.40
Less: Non-tariff income	0.37	17.92	0.37	17.92	0.37	17.92
Annual Fixed Charges	**1748.82**	**1499.25**	**1745.49**	**1471.06**	**1783.69**	**1443.41**

Particulars	FY 2022-23		FY 2023-24	
	Claimed	Approved	Claimed	Approved
Depreciation	486.19	400.36	507.48	400.36
Advance Against Depreciation	12.84	0.00	0.00	0.00
Interest on Loan	412.40	286.06	391.11	249.48
Interest on Working Capital	123.21	79.65	135.06	79.63
Interest on Working Capital for FGD system	0.40	0.00	0.40	0.00
O&M expenses	277.84	231.61	291.40	241.55
O&M expenses for FGD system	12.91	0.00	12.91	0.00
O&M expenses for NOx mitigation system	0.76	0.00	0.76	0.00
Return on Equity	557.05	436.40	581.45	436.40
Less: Non-tariff income	0.37	17.92	0.37	17.92
Annual Fixed Charges	**1883.22**	**1416.16**	**1920.19**	**1389.49**

6.10 ENERGY CHARGES

Petitioner's submission

6.10.1 The energy charges have been computed based on Clause 21 of the Regulation No.1 of 2019. The energy charges for FY 2019-20 has been computed considering the fuel prices and GCV for the months of November 2018, December 2018 and January 2019. For the subsequent years, the fuel prices have been projected to increase at the rate of 7% and 10% for coal and oil respectively based on the actual increase during the period from April 2017 to January 2019. The energy bills shall be raised based on the actual fuel prices and GCV.

6.10.2 On conjoint reading of Clause 21.6, 21.7 and 21.10 of the Regulation No.1 of 2019, difficulty arises regarding the GCV of coal to be considered for determination of Energy Charge Rate (ECR). Clause 21.6 refer to as received GCV of coal whereas the Clause 21.7 and 21.10 refer to as fired GCV of coal.

6.10.3 SERCs are guided by the principles of CERC in specifying the Regulations as per Section 61(a) of the Act. The CERC (Terms and Conditions of Tariff) Regulations, 2019 stipulate the energy charge computation based on the GCV of coal as received less 85 kcal/kg. Further, CEA in its recommendations to CERC suggested a margin of 85-100 kcal/kg and 105-120 kcal/kg for pit head and non-pit head generating stations on account of GCV loss from that measured at the unloading point till the firing point in the boiler. The Tariff Regulations of Maharashtra Electricity Regulatory Commission (MERC), Gujarat Electricity Regulatory Commission (GERC) and CERC provide for ECR computation based on CERC methodology or on the basis of as fired GCV of coal. SCCL requested the Commission to provide necessary clarifications in this regard.

6.10.4 The ECR claimed by SCCL for FY 2019-20 to FY 2023-24 is as shown in the Table below:

Table 70: ECR claimed by SCCL for FY 2019-20 to FY 2023-24

Particulars	**Unit**	**FY 2019-20**	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**	**FY 2023-24**
Auxiliary Consumption	%	7.00%	7.00%	7.00%	7.33%	8.50%
Gross Station Heat Rate	kcal/kWh	2400.00	2400.00	2400.00	2400.00	2400.00
Secondary Fuel oil consumption	ml/kWh	2.00	2.00	2.00	2.00	2.00
Calorific Value of Secondary Fuel	kcal/ml	9.99	9.99	9.99	9.99	9.99
Landed Price of Secondary Fuel	Rs./ml	0.05	0.06	0.07	0.08	0.09
Wt. Avg. Gross Calorific Value of Coal	kcal/kg	3866.17	3866.17	3866.17	3866.17	3866.17
Landed Price of Coal	Rs./kg	4.18	4.64	5.15	5.72	6.35
Specific Coal Consumption	kg/kWh	0.62	0.62	0.62	0.62	0.62
ECR	**Rs./kWh**	**2.884**	**3.205**	**3.563**	**3.975**	**4.476**

Commission's View

6.10.5 Clause 21.6 of the Regulation No.1 of 2019 stipulates the methodology for determination of ECR which stipulates the GCV of coal to be considered on as received basis. Clause 21.7 and 21.10 of the Regulation No.1 of 2019 stipulate as under:

"21.7. Provided that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels as fired shall also be provided separately, along with the bills of the respective month........."

"2.10. Any variation in fuel prices on account of change in the Gross Calorific Value (GCV) of coal or gas or liquid fuel shall be adjusted on a monthly basis on the basis of average GCV of coal or gas or liquid fuel in stock, as fired and weighted average landed cost incurred by the Generating Entity for procurement of coal, oil or gas or liquid fuel, as the case may be for a Station."

6.10.6 SCCL requested the Commission to provide necessary clarification regarding the GCV of coal to be considered for ECR computation in view of the difficulty arisen on conjoint reading of Clause 21.6, 21.7 and 21.10.

6.10.7 The Commission has gone through the submissions of SCCL and the stakeholders on this issue. The Commission clarifies that the 'as received'

GCV as specified in Clause 21.6 is to be considered while determining the tariff under MYT provisions. As the benefit of GCV loss from 'pit head' to 'as fired' needs to be passed on to the generator, the same shall be taken care of in Clause 21.7 and Clause 21.10 which provides for adjustment of the variation in GCV considered in tariff determination and 'as fired' GCV. Therefore, the Commission rules that the monthly adjustment in variation in GCV of coal has to be carried out in accordance with Clause 21.10 of the Regulation No.1 of 2019.

6.10.8 The Commission, in the approval of Business Plan for the Control Period from FY 2019-20 to FY 2023-24, had approved the following norms of operation in accordance with Regulation No. 1 of 2019:

Table 71: Norms of operation approved for the Control Period from FY 2019-20 to FY 2023-14

Parameter	Units	Approved
Normative Annual Plant Availability Factor	%	85%
Normative Annual PLF	%	85%
Auxiliary Consumption	%	5.75%
Gross Station Heat Rate	kcal/kWh	2303.88
Secondary Fuel Oil Consumption	ml/kWh	0.50
Transit Loss	%	0.80%

6.10.9 SCCL has claimed the energy charges for the Control Period from FY 2019-20 to FY 2023-24 by considering the year-on-year escalation in fuel prices. SCCL has considered the annual escalation of 11% and 15% for Coal and Secondary Fuel Oil prices.

6.10.10 Clause 21.10 of the Regulation No. 1 of 2019 provides for monthly adjustment of variation in fuel prices on account of any variations in GCV and prices of fuels. Therefore, the Commission has computed the base ECR considering tentatively the fuel prices and GCV for the months of January to March 2019. The tentative fuel prices and GCV considered by the Commission for computing the Base ECR is as shown in the Table below:

Table 72: Tentative fuel prices and GCV considered by the Commission

Particulars	Units	Value
Calorific Value of Secondary Fuel	kcal/ml	9.97
Landed Price of Secondary Fuel	Rs./ml	0.04
Wt. Avg. Gross Calorific Value of Coal	kcal/kg	3866.17
Landed Price of Coal	Rs./kg	3.68

6.10.11 Based on the above norms of operation and tentative fuel prices and GCV, the Base ECR computed by the Commission is as shown in the Table below:

Table 73: Base ECR computed by the Commission

Particulars	Units	Value
Auxiliary Consumption	%	5.75%
Gross Station Heat Rate	kcal/kWh	2303.88
Secondary Fuel oil consumption	ml/kWh	0.50
Calorific Value of Secondary Fuel	kcal/ml	9.97
Landed Price of Secondary Fuel	Rs./ml	0.04
Wt. Avg. Gross Calorific Value of Coal	kcal/kg	3866.17
Landed Price of Coal	Rs./kg	3.68
Specific Coal Consumption	kg/kWh	0.59
ECR	**Rs./kWh**	**2.345**

6.10.12 The variation in fuel prices and GCV shall be billed in accordance with the provisions of the Regulation No. 1 of 2019.

6.10.13 The indicative total tariff based on the above is as shown in the Table below:

Table 74: Indicative total tariff for FY 2019-20 to FY 2023-24

Particulars	FY 2019-20		FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24	
	Projected by SCCL	Computed by the Commission	Projected by SCCL	Computed by the Commission	Projected by SCCL	Computed by the Commission	Projected by SCCL	Computed by the Commission	Projected by SCCL	Computed by the Commission
Net Generation (MU)	8929.65	8444.50*	8905.26	8421.43*	8873.45	8421.43*	8761.62	8421.43*	8785.63	8444.50*
AFC (Rs. Crore)	1748.82	1499.25	1745.49	1471.06	1783.69	1443.41	1883.22	1416.16	1920.19	1389.49
AFC per unit (Rs./kWh) (indicative)	1.958	1.775	1.960	1.747	2.010	1.714	2.149	1.682	2.186	1.645
Base ECR (Rs./kWh)	2.884	2.345	3.205	2.345	3.563	2.345	3.975	2.345	4.476	2.345
Total Tariff (Rs./kWh) (indicative)	**4.842**	**4.120**	**5.165**	**4.091**	**5.573**	**4.059**	**6.125**	**4.026**	**6.662**	**3.990**

**Corresponding to NAPLF of 85%*
***The variations in fuel prices and GCV shall be billed in accordance with the provisions of the Regulation No. 1 of 2019*

6.11 COMMISSION'S DIRECTIVES

6.11.1 The Commission's earlier Directives and new Directives issued in this Order are enclosed at Appendix B.

6.12 I.A.NO.2 OF 2020 IN O.P.NO.5 OF 2019

6.12.1 The Commission had passed an order dated 08.02.2020 directed the DISCOMs to pay the tariff as applicable for FY 2018-19 for the energy supplied by the Petitioner from 01.04.2019 till the disposal of the Original Petition. As the Commission is now passing the final Order determining the

Tariffs for Control Period from FY 2019-20 to FY 2023-24, no further action in the above said I.A. is required and accordingly the same stands closed.

6.13 APPLICABILITY

6.13.1 The Generation Tariffs determined for each year of the Control Period from FY 2019-20 to FY 2023-24 are applicable from 1st April to 31st March of the respective Financial Year. However, as FY 2019-20 and few months of FY 2020-21 are over, the Commission directs the Petitioner to recover/adjust the difference in revenue recoverable in accordance with the Tariff approved in this Order vis-a-vis the Tariff charged from April 2019 till the issue of this Order in 6 equal monthly instalments. For FY 2020-21, the Generation Tariffs are applicable w.e.f. 01.09.2020.

This Order is corrected and signed on this the 28th day of August, 2020.

Sd/-	**Sd/-**	**Sd/-**
(BANDARU KRISHNAIAH)	**(M.D.MANOHAR RAJU)**	**(T.SRIRANGA RAO)**
MEMBER	**MEMBER**	**CHAIRMAN**

APPENDIX A
SCHEDULE OF APPROVED TARIFF

1. The AFC approved by the Commission for the Control Period from FY 2019-20 to FY 2023-24 is as shown in the Table below:

(Rs. Crore)

Particulars	**FY 2019-20**	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**	**FY 2023-24**
Depreciation	400.36	400.36	400.36	400.36	400.36
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	395.83	359.24	322.65	286.06	249.48
Interest on Working Capital	80.40	80.04	79.84	79.65	79.63
Interest on Working Capital for FGD system	0.00	0.00	0.00	0.00	0.00
O&M expenses	204.18	212.94	222.08	231.61	241.55
O&M expenses for FGD system	0.00	0.00	0.00	0.00	0.00
O&M expenses for NOx mitigation system	0.00	0.00	0.00	0.00	0.00
Return on Equity	436.40	436.40	436.40	436.40	436.40
Less: Non-tariff income	17.92	17.92	17.92	17.92	17.92
Annual Fixed Charges	**1499.25**	**1471.06**	**1443.41**	**1416.16**	**1389.49**

2. The norms of operation approved for the Control Period from FY 2019-20 to FY 2023-24 is as shown in the Table below:

Parameter	**Units**	**Approved**
Normative Annual Plant Availability Factor	%	85%
Normative Annual PLF	%	85%
Auxiliary Consumption	%	5.75%
Gross Station Heat Rate	kcal/kWh	2303.88
Secondary Fuel Oil Consumption	ml/kWh	0.50
Transit Loss	%	0.80%

3. The Base ECR computed by the Commission is as shown in the Table below:

Particulars	**Units**	**Value**
Auxiliary Consumption	%	5.75%
Gross Station Heat Rate	kcal/kWh	2303.88
Secondary Fuel oil consumption	ml/kWh	0.50
Calorific Value of Secondary Fuel	kcal/ml	9.97
Landed Price of Secondary Fuel	Rs./ml	0.04
Weighted. Average. Gross Calorific Value of Coal	kcal/kg	3866.17
Landed Price of Coal	Rs./kg	3.68
Specific Coal Consumption	kg/kWh	0.59
ECR	**Rs./kWh**	**2.345**

4. The computation and payment of Capacity Charges and Energy Charges shall be in accordance with the provisions of the Regulation No.1 of 2019.

5. Incentive for higher PLF shall be in accordance with the provisions of the Regulation No.1 of 2019.

APPENDIX B
COMMISSION'S DIRECTIVES

EARLIER DIRECTIVES

1. Coal Swapping

SCCL should actively pursue the issue of coal allocation for its generating station with the Ministry of Coal so that the cumbersome task of transportation of coal from Naini coal block in Odisha and associated losses in quantity and GCV could be mitigated by procuring coal from its own mines which are closer to its generating station.

NEW DIRECTIVES

2. True-up for FY 2016-17 to FY 2018-19

(Para 4.22.2) The Commission directs SCCL to bill the differential AFC recoverable/refundable for the period from FY 2016-17 to FY 2018-19 as per the AFC approved after true-up approved in this Order.

(Para 4.23.3) The Commission directs SCCL to take up the issue of water charges with the DISCOMs.

3. Billing disputes (Para 4.24.10)

The Commission directs SCCL to file a separate Petition on the billing disputes.

4. MYT for FY 2019-20 to FY 2023-24

(Para 5.2.7) The Commission directs SCCL to submit its proposal of additional auxiliary consumption for FGD in its Mid-Term Review Petition for the consideration of the Commission.

(Para 5.5.3) The Commission directs SCCL to submit the status of the efficiency improvement measures implemented by SCCL and the results of the same in its Mid-Term Review Petition.

(Para 6.13.1) The Commission directs the Petitioner to recover/adjust the difference in revenue recoverable in accordance with the Tariff approved in this Order vis-a-vis the Tariff charged from April 2019 till the issue of this Order in 6 equal monthly instalments.

ANNEXURE 1
PUBLIC NOTICE

TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

11-4-660, 5th Floor, Singareni Bhavan, Red Hills, Hyderabad.
Ph: (040) 23397625/ 23311125 to 28
Fax No. (040) 23397489 Website www.tserc.gov.in

PRESS RELEASE

O. P. No. 4 of 2019, O. P. No. 5 of 2019, O. P. No. 8 of 2020 & O. P. No. 9 of 2020

Singareni Collieries Company Limited (SCCL) has filed petitions under sections 62 and 86 (1) (a) of Electricity Act, 2003 (Act, 2003) read with the Telangana State Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) Regulation, 2019 (Regulation No. 1 of 2019) seeking approval for 2 X 600 MW of its Singareni Thermal Power Plant (STTP) in the following petitions.

a) Aggregate revenue requirement and tariff for the period from 01.04.2019 to 31.03.2024. b) Truing up of tariff for the period FY 2016-2019. c) Business plan for the period from 01.04.2019 to 31.03.2024. d) Capital Investment plan for the period FY 2016-2019.

Interested persons may offer comments, objections and suggestions in the matter by **12.03.2020**.

The Commission will hear the petitioner and other stakeholders including the DISCOMs with regard to the above matter on **18.03.2020** at the Commission's court hall in Hyderabad. Complete details on the above matter are available on **www.tserc.gov.in** and **www.scclmines.com**

Place: Hyderabad
Date: 19.02.2020 PR/2019-20/STPP/SLK/117

Sd/-
COMMISSION SECRETARY (FAC)

తెలంగాణ స్టేట్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమీషన్

11-4-660 5వ అంతస్తు, సింగరేణి భవన్, రెడ్ హిల్స్, హైదరాబాద్.
ఫోన్: (040) 23397625 / 23311125 నుండి 28 ఫ్యాక్స్ నెం. (040) 23397489
వెబ్‌సైట్ www.tserc.gov.in

బహిరంగ ప్రకటన

O. P. No. 4 of 2019, O. P. No. 5 of 2019, O. P. No. 8 of 2020 & O. P. No. 9 of 2020

సింగరేణి కాలరీస్ కంపెనీ లిమిటెడ్ (SCCL) తమ సింగరేణి థర్మల్ పవర్ ప్లాంట్ (STTP), 2×600 MW యొక్క ఈ క్రింద తెలిపిన అభ్యర్థనలకు ఆమోదం కోరుతూ తెలంగాణ స్టేట్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమిషన్ (జనరేషన్ టారీఫ్ యొక్క నియమ నిబంధనలు) రెగ్యులేషన్, 2019 (రెగ్యులేషన్ నెం. 1 ఆఫ్ 2019)లో పేర్కొనబడిన విద్యుత్ చట్టం 2003 (చట్టం, 2003)లోని సెక్షన్‌లు 62 మరియు 86 (1) (a) క్రింద దరఖాస్తును దాఖలు చేసింది.

a) 01.04.2019 నుండి 31.03.2024 వరకు గల కాలానికి పూర్తి రెవెన్యూ అవశ్యకత మరియు టారీఫ్; b) FY 2016-2019 కాలానికి టారీఫ్ ట్రూయింగ్ అప్; c) 01.04.2019 నుండి 31.03.2024 వరకు గల కాలానికి వ్యాపార ప్రణాళిక; d) FY 2019-2024 వరకు గల కాలానికి మూలధన పెట్టుబడి ప్రణాళిక;

దీనికి సంబంధించి అభ్యంతరాలు / సూచనలు / అభిప్రాయాలు తెలియజేయదలుచుకున్న వారు తేది: 12.03.2020 లోపు కమిషన్ దృష్టికి తీసుకొని రావచ్చు.

పై విషయంపై కమిషన్ 18.03.2020 DISCOMs తో సహా పిటిషనర్ మరియు ఇతర స్టేక్‌హోల్డర్స్‌ను హైదరాబాద్‌లోని కమిషన్ కోర్టులో విచారిస్తుంది. ఈ విషయానికి సంబంధించి పూర్తి సమాచారం www.tserc.gov.in మరియు www.scclmines.com లలో చూడవచ్చు.

ప్రదేశం: హైదరాబాద్ సం/-
తేది: 19.02.2020 PR/2019-20/STPP/SLK/117 కమిషన్ సెక్రటరీ (FAC)

تلنگانہ اسٹیٹ الیکٹریسٹی ریگولیٹری کمیشن

11-4-660 ' پانچویں منزل ' سنگارینی بھون ' ریڈ ہلز ' حیدرآباد
فون : 23311125 to 28 (040) 23397625/2
فیاکس نمبر : 23397489 (040) ویب سائیٹ : www.tserc.gov.in

پریس ریلیز

O.P. No. 4 of 2019, No. O.P. 5 of 2019, O.P. No. 8 of 2020 & O.P. No. 9 of 2020

سنگارینی کالریز کمپنی لمیٹیڈ (ایس سی سی ایل) نے حسب ذیل پٹیشنس میں اس کے سنگارینی تھرمل پاور پلانٹ (ایس ٹی پی پی) کے 2x600MW کے لئے منظوری کے حصول کیلئے الکٹریسٹی ایکٹ 2003 (ایکٹ 2003) کے سیکشنس 62 اور 86(1)(a) کے مطابق ملاحظہ ہو' تلنگانہ اسٹیٹ الیکٹریسٹی ریگولیٹری کمیشن (جنریشن ٹیرف کے قواعد و شرائط) ریگولیشن' 2019 (ریگولیشن نمبر 1 of 2019) پٹیشنس داخل کی ہیں۔

a) مدت 01-04-2019 تا 31-03-2024 کیلئے مجموعی ریونیو مطلوبات اور ٹریف۔ b) مالی سال 2016-2019 کی مدت کے لئے ٹریف کا ٹرنگ اپ c) مدت 01-04-2019 تا 31-03-2024 کیلئے بزنس پلان۔ d) مالی سال 2016-2019 کی مدت کے لئے کیپٹل انویسٹمنٹ پلان۔

خواہشمند اشخاص 12-03-2020 تک اس معاملہ میں تبصرے' اعتراضات اور تجاویز پیش کرسکتے ہیں۔

کمیشن 18-03-2020 کو حیدرآباد میں کمیشن کے کورٹ ہال میں مذکورہ بالا معاملہ سے متعلق پٹیشنر اور دیگر اسٹیک ہولڈرس بشمول ڈسکامس (DISCOMS) کو سماعت کرے گا۔ مذکورہ بالا معاملہ میں مکمل تفصیلات : www.tserc.gov.in اور www.scclmines.com پر دستیاب ہیں۔

مقام : حیدرآباد	شرحدستخط ر
تاریخ : 19-02-2020	کمیشن سکریٹری (ٹی ایس ای آر سی)

(PR/2019-20/STPP/SLK/117)

ANNEXURE 2
LIST OF STAKEHOLDERS WHO SUBMITTED THE WRITTEN COMMENTS/OBJECTIONS/SUGGESTIONS

Sl. No.	Name and address of the stakeholder
1	Sri M.Venugopala Rao, Senior Journalist & Convenor, Centre for Power Studies, H.No.1-100/MP/101, Monarch Prestige, Journalists' Colony, Gopanpally, Serlingampally Mandal, Hyderabad – 500 032
2	Sri M.Thimma Reddy, Convenor, People's Monitoring Group on Electricity Regulation, 139, Kakatiyanagar, Hyderabad - 500 008
3	Southern Power Distribution Company of Telangana Ltd., Corporate Office, 6-1-50, Mint Compound, Hyderabad

ANNEXURE 3
LIST OF STAKEHOLDERS WHO PARTICIPATED IN VIRTUAL PUBLIC HEARING BY VIDEO CONFERENCE HELD ON 23.07.2020

Sl. No.	Name and address of the stakeholder
1	Sri M.Venugopala Rao, Senior Journalist & Convenor, Centre for Power Studies, H.No.1-100/MP/101, Monarch Prestige, Journalists' Colony, Gopanpally, Serlingampally Mandal, Hyderabad – 500 032
2	Southern Power Distribution Company of Telangana Ltd., Corporate Office, 6-1-50, Mint Compound, Hyderabad