

Submitted on 30 MAR 2019.

BEFORE THE TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

HYDERABAD

CASE NO. OF 2019

(To be filled by the office)

IN THE MATTER OF:

Filing of Business Plan during the control period comprising five years from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2024 in respect of 2X600 MW Singareni Thermal Power Plant for approval in accordance with Regulation 7 of Telangana State Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) regulation 2019.

AND IN THE MATTER OF:

The Singareni Collieries Company Limited (SCCL): Kothagudem Collieries, Bhadradi Kothagudem Dist, Telangana State - 507101; Represented by its authorized representative i.e., **Director Finance, SCCL.**

**PETITIONER**

AND

1. Southern Power Distribution Company of Telangana Limited (TSSPDCL):  
Corporate Office: # 6-1-50, Mint Compound, Hyderabad, Telangana-500 063.
2. Northern Power Distribution Company of Telangana Limited (TSNPDCL):  
H.No: 2-5-31/2, corporate Office, Vidyut Bhavan, Nakkalagutta, Hanamkonda,  
Warangal, Telangana- 506001

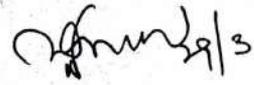
**RESPONDENTS**

**Master Index**

Sr No	Particular	Page No
1.	Affidavit	1-2
2.	Cause title	3
3.	Facts of the case	3
4.	Ground of the case	3
5.	Summary of Business Plan	4
6.	Authorization for filing on the petition	6

7.	Jurisdiction	6
8.	Limitation	6
9.	Court Fee	7
10.	Declaration	7
11.	Prayer before Hon'ble commission	7
<b>Annexure I</b>	Detailed Business Plan	8-79
<b>Annexure II</b>	Authorization for filing before TSERC.	80-83
<b>Annexure III</b>	A copy of Banker's Cheque No 253066 dated 27-03-2019 for Rs 10,000 (Ten thousand) submitted as filing fee.	84

Through



Shri N. Balram

Director(Finance)

The Singareni Collieries Company Limited

Kothagudem Collieries

Bhadradi Kothagudem Dist,

Telangana State - 507101

(Form II)  
(See clause 14 and 15)  
General Heading for Proceedings  
BEFORE THE TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

HYDERABAD

CASE NO. \_\_\_\_\_ OF 20

(To be filled by the office)

IN THE MATTER OF:

Filing of Business Plan during the control period comprising five years from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2024 in respect of 2X600 MW Singareni Thermal Power Plant for approval in accordance with Regulation 7 of Telangana State Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) regulation 2019.

AND IN THE MATTER OF:

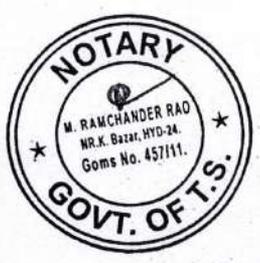
The Singareni Collieries Company Limited (SCCL): Kothagudem Collieries, Bhadradi Kothagudem Dist, Telangana State - 507101; Represented by its authorized representative i.e., Director Finance, SCCL.

PETITIONER

AND

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Corporate Office: # 6-1-50, Mint Compound, Hyderabad, Telangana-500 063.
- 2. Northern Power Distribution Company of Telangana Limited (TSNPDCL):  
H.No: 2-5-31/2, corporate Office, Vidyut Bhavan, Nakkalagutta, Hanamkonda, Warangal, Telangana- 506001

RESPONDENTS



29 MAR 2019

Affidavit verifying the Petition

I, Shri N .Balram, son of N.Hunya aged 38 years residing at Bungalow no: S-4, Bungalows area, Lakshmidvipally, Kothagudem – 507101 do solemnly affirm and say that

1. I am the Director Finance of SCCL, the petitioner in the above matter and am duly authorized by the said petitioner to make this affidavit.
2. I have read and understood the contents of the accompanying Business Plan from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2024 for 2 X 600 MW Singareni Thermal Power Project located in Jaipur, Mancherial, filed by Petitioner before this Hon'ble Commission for approval .The statements made in paragraphs of the petition accompanying affidavit now shown to me are true to my knowledge and are derived from official records made available to me and are based on information and advice received which I believe to be true and true.

I Solemnly affirm at Hyderabad on 29<sup>th</sup> day of March, 2019 that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

(Shri N. Balram)

Place : Hyderabad  
Date : 29.03.2019

**ATTESTED**



29 MAR 2019

ATTESTED  
  
 NOTARY  
**M. RAMCHANDER RAO**  
 ADVOCATE  
 H. No. 22-2-849/3, Noor Khan Bazar,  
 HYD-24. T.S. India. Goms No. 457/11.

(Form I)  
(See clause 13 and 14)  
General Heading for Proceedings  
BEFORE THE TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

HYDERABAD

CASE NO. OF 2019

(To be filled by the office)

IN THE MATTER OF:

Filing of Business Plan during the control period comprising five years from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2024 in respect of 2X600 MW Singareni Thermal Power Plant for approval in accordance with Regulation 7 of Telangana State Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) regulation 2019.

AND IN THE MATTER OF:

The Singareni Collieries Company Limited (SCCL): Kothagudem Collieries, Bhadradi Kothagudem Dist, Telangana State - 507101; Represented by its authorized representative i.e., **Director Finance, SCCL.**

**PETITIONER**

AND

3. Southern Power Distribution Company of Telangana Limited (TSSPDCL):  
Corporate Office: # 6-1-50, Mint Compound, Hyderabad, Telangana-500 063.
4. Northern Power Distribution Company of Telangana Limited (TSNPDC):  
H.No: 2-5-31/2, corporate Office, Vidyut Bhavan, Nakkalagutta, Hanamkonda,  
Warangal, Telangana- 506001

**RESPONDENTS**

3. **Facts of the Case:** This petition is filed for approval of Business Plan during the control period comprising five years from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2024 in respect of 2X600 MW Singareni Thermal Power Plant in accordance with Regulation 7 of Telangana State Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) regulation 2019.

The details of Petitioner are respectfully submitted as under:

I. Name and Address of Applicant: **The Singareni Collieries Company Limited (SCCL), Kothagudem Collieries, Bhadradi Kothagudem Dist, Telangana State -507101**

II. Primary Business of the Applicant: **Coal Mining**

III. Details of Distribution Licensee purchasing power:

a. **Southern Power Distribution Company of Telangana Limited**

**(TSSPDCL): Corporate Office: # 6-1-50, Mint Compound, Hyderabad, Telangana- 500063.**

b. **Northern Power Distribution Company of Telangana Limited**

**(TSNPDCL): H.No: 2-5-31/2, Corporate Office, Vidyut Bhavan, Nakkalgutta, Hanamkonda, Warangal, Telangana- 506001.**

IV. Details of Generating Company: **The Singareni Collieries Company Limited(SCCL): Kothagudem Collieries, Bhadradi Kothagudem Dist, Telangana State -507101.**

V. Name and Location of the Generating station for which Aggregate Revenue Requirement and tariff to be determined, is as follows:

a. Name/Location of Generating Station: **Singareni Thermal Power Project (STPP), Pegadapalli (V), Jaipur Mandal, Mancheri District, Telangana**

b. Total existing unit wise installed capacity in MW: **Unit-I: 600 MW, Unit-II: 600 MW**

c. Nature of Generation plant: **Thermal**

d. Type of primary and secondary fuel:

i. Primary Fuel: **Coal**

ii. Secondary Fuel: **Light Diesel Oil/Heavy Fuel Oil**

e. Commercial operation of units:

i. Unit-I: **25.09.2016**

ii. Unit-II: **02.12.2016**

4. **Grounds of the case:** This filing for this petition is in accordance with the provisions of the Section 62.1 and 86.1 (a) of Electricity Act 2003 and read with regulation 7 of Telangana State Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) regulation 2019.

While filing the present Business plan, The Singareni Collieries Company Limited has endeavored to comply with the various applicable legal and regulatory directions of this Hon'ble Commission including the directions contained in the Conduct of Business regulation 2015 and the Regulations 1 of 2019 ( Terms and Conditions of generation Tariff regulation 2019 ) issued by Hon'ble TSERC.

Based on the information available, the applicant has made bona-fide efforts to comply with the directions of the Hon'ble Commission and discharge its obligations to the best of its abilities. However, should any further material become available in the near future, the Applicant reserves the right to file such additional information and consequently amend/revise the application.

#### **5. Summary of Business Plan**

A summary of Business plan is placed below:

SCCL established Singareni thermal power plant (STPP) in Jaipur, Telangana in FY 2016-17 and entered into a Power Purchase Agreement (PPA) with two Power Distribution companies of Telangana for supplying total power generated from STPP at a tariff decided by hon'ble Telangana State Electricity Regulatory Commission (TSERC). The Hon'ble TSERC has notified terms and condition for determination of generation tariff regulation 2019 for determination of annual revenue requirement in the state of Telangana from 1st April 2019 to 31st March 2024.

Business plan for STPP is prepared in compliance with clause 7 (a) of generation tariff regulation 2019 of TSERC which provides that generators have to submit a business plan for the coming control period.

A business plan is a written document prepared after reviewing the business under current environment and strategizing its effort in future periods to enables the business to achieve its defined goal. A business plan is a road map that helps to maximise value of business under actual scenario.

The business plan covers Generation Planning, Capital Investment Plan, future performance targets, efficiency related measures and status of Environmental compliance. The Business Plan also includes financial

statements like balance sheet and profit and loss statement for 2019-24 and new initiatives in Generation Business.

The Ex bus generation projection for control period is summarized as under:

(In Million units)

2019-20	2020-21	2021-22	2022-23	2023-24
4464.83	4452.63	4432.43	4380.81	4392.81
4464.83	4452.63	4441.02	4380.81	4392.81
8929.65	8905.26	8873.45	8761.62	8785.63

The summary of projected norms is sought at par with the norms of K'TPP stage II which is given below:

Thermal	Unit	K'TPP stage-II
Normative Annual Plant Availability Factor (Target Availability)	%	80.00%
Normative Annual Plant load Factor (for computation of incentive)	%	80.00%
Gross Station Heat Rate	Kcal/kWh	2,400
Secondary fuel oil consumption	ml/kWh	2.0
Auxiliary energy consumption	%	7.00%
Transit and Handling Losses	%	0.80%

Further, considering the installation of FGD, the norms of STPP for auxiliary energy consumption is required to be increased by 1.5% from 2021-22.

Efficiency improvement drives shall focus on parameters such as availability, specific oil consumption, station heat rate and auxiliary power consumption.

The Capital investment plan duly takes into account proposal for FGD and NOx mitigation system for complying new emission norms. The summary of capital investment plan is as under:

SUMMARY OF CAPITAL INVESTMENT PLAN FOR FY 2019-24 (BASED ON PUT TO USE)						
(In Crores)						
Financial Year	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Investment in Crore	214.75	157.63	823.18	0	0	1195.57

Coal is the primary input for power generation. The linked mine of STPP is Naini in Orissa which is expected to reach its peak rated capacity (PRC) by 2023 as per mining plan. In view of this, SCCL has requested the standing linkage committee (Long-Term) for power sector to extend bridge linkage of coal for STPP. The standing linkage committee, after considering the representation by SCCL has recommended the extension of bridge linkage of STPP upto 2023.

STPP has achieved more than 100% ash utilisation for 2018-19. The same level of efficacy in ash evacuation is expected to continue in ensuing years.

As a part of new initiative, Plant Maintenance (PM) module which is a semi-automated maintenance management process used by prominent generating companies will also be implemented in STPP. Further, the existing high-pressure sodium vapor lamps (HPSV) and compact fluorescent lamps (CFL) are also proposed to be replaced with LED.

SCCL, through its adequate corporate governance system is taking necessary steps not only for continuous compliance of environment regulation but also towards improvement of the surrounding environment. As such, the Singareni Collieries Company Limited (SCCL) through its all endeavor of business is committed to bring economic and social benefits to the community and especially to marginalized communities through undertaking corporate social responsibility programme.

The detail Business Plan is enclosed in **Annexure I**.

6. **Authorization for filing on the petition:** The Director (Finance) of SCCL has been authorized to sign on the petition / documents to be filed before the Hon'ble TSERC. Copy of the authorization is enclosed as **Annexure II**.
7. **Jurisdiction:** This Business Plan is related to determination of annual revenue requirement and tariff and is within the Jurisdiction of TSERC. As per section 62, Appropriate commission can determine the tariff for supply of electricity by a generating company to a distribution licensee. Further, the state electricity regulatory commission shall determine the tariff for generation within the state as per section 86.1(a) read.

8. **Limitation:** The determination of tariff is a continuous process and the provisions of limitation Act does not apply to the issues to be decided as part of regulatory process such as approval of Business plan etc.

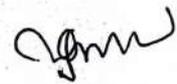
9. **Court Fee:** The present petition is filed as normal petition accompanying the Multi Year tariff petition for 2019-24. Hence a fees of Rs 10,000/- is paid as per regulation 4 (c) of regulation 2of 2016 (levy of fees for various services rendered by the commission). A copy of the banker's cheque is attached as **Annexure -III**.

10. **Declaration:** This subject matter of this petition has not been raised by the petitioner before any other competent forum and that no other competent forum is currently seized of the matter or has passed any order in relation thereto.

**11. Prayer before Hon'ble commission**

SCCL prays to the Hon'ble Commission that it may be pleased to:

- a) Consider the submissions made by SCCL and allow the Business plan for Financial year 2019-24 in respect of 2x 600 MW Singareni Thermal Power Plant;
- b) Pass such further Orders, as the Hon'ble Commission may deem fit , appropriate and proper in circumstances of the case.



(Shri N. Balram)

Place: Hyderabad

Date :29.03.2019



**The Singareni Collieries Company Limited**

Filing of

**Business Plan 2019-2024**

**For**

Singareni Thermal Power Project (2 X 600 MW) in Jaipur, Mancherial  
District

To

Telangana State Electricity Regulatory Commission (TSERC)

Index

1 EXECUTIVE SUMMARY ..... 2

2 INTRODUCTION TO BUSINESS PLAN: ..... 4

3 FUTURE PERFORMANCE NORMS..... 5

4 EFFICIENCY IMPROVEMENT MEASURES: ..... 7

5 GENERATION PLANNING AND FORECASTS: ..... 8

5.1 PROJECTION OF PLF: .....9

5.2 PROJECTION OF AUXILIARY ENERGY PERCENTAGE : .....10

5.3 PROJECTION OF NET GENERATION QUANTUM:.....11

5.4 PROJECTION OF GROSS ENERGY QUANTUM: .....11

5.5 PROJECTION OF AUX QUANTUM: .....12

5.6 PLANNING OF OVERHAULING AND MONTH WISE GENERATION: .....12

5.7 MONTHLY GROSS GENERATION PLANNING FOR UNIT1 .....13

5.8 MONTHLY GROSS GENERATION PLANNING FOR UNIT 2 .....15

5.9 MONTHLY GROSS GENERATION, NET GENERATION AND AUXILIARY GENERATION OF STPP .....16

6 COAL PLANNING..... 18

7 ASH EVACUATION (COMPLIANCE TO ENVIRONMENTAL NORMS)..... 19

8 CAPITAL INVESTMENT PLAN..... 21

9 NEW INITIATIVES: ..... 22

10 MANPOWER OF STPP:..... 24

11 TRAINING FOR THE STPP PERSONNEL: ..... 26

12 SAFETY MANAGEMENT: ..... 27

13 CORPORATE SOCIAL RESPONSIBILITY ..... 28

13.1 EDUCATION:.....30

13.2 HEALTH & SANITATION: .....30

13.3 INFRASTRUCTURE:.....31

13.4 VOCATIONAL TRAINING: .....31

13.5 AGRICULTURE: .....31

13.6 OTHER ACTIVITIES: .....31

13.7 PROJECTION OF CSR EXPENDITURE DURING FY 2019-24: .....31

13.8 DEVELOPMENT OF STPP CSR PROGRAMME FOR 2019-24 .....32

14 . PROJECTED FINANCIALS: ..... 32

14.1 PROVISIONAL STATEMENT OF PROFIT AND LOSS FOR 5 YEARS .....33

14.2 PROVISIONAL BALANCE SHEET OF STPP FOR 5 YEARS .....35

14.3 CASH FLOW STATEMENT FOR 5 YEARS – STPP .....37

15 THE BILLING AND COLLECTION EFFICIENCY ..... 38

16 PRAYER BEFORE HON’BLE COMMISSION..... 39

## 1 Executive Summary

SCCL established Singareni thermal power plant (STPP) in Jaipur, Telangana in FY 2016-17 and entered into a Power Purchase Agreement (PPA) with two Power Distribution companies of Telangana for supplying total power generated from STPP at a tariff decided by hon'ble Telangana State Electricity Regulatory Commission (TSERC). The Hon'ble TSERC has notified terms and conditions for determination of generation tariff regulation 2019 for determination of annual revenue requirement in the state of Telangana from 1st April 2019 to 31st March 2024.

Business plan for STPP is prepared in compliance with clause 7 (a) of generation tariff regulation 2019 of TSERC which provides that generators have to submit a business plan for the coming control period.

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(In Million units)

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2	4464.83	4452.63	4441.02	4380.81	4392.81
1&2	8929.65	8905.26	8873.45	8761.62	8785.63

The summary of projected norms is sought at par with the norms of KTPP stage II which is given below:

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Transit and Handling Losses	%	0.80%

Further, considering the installation of FGD, the norms of STPP for auxiliary energy consumption is required to be increased by 1.5% from 2021-22.

Efficiency improvement drives shall focus on parameters such as availability, specific oil consumption, station heat rate and auxiliary power consumption.

The Capital investment plan duly takes into account proposal for FGD and NOx mitigation system for complying new emission norms. The summary of capital investment plan is as under:

SUMMARY OF CAPITAL INVESTMENT PLAN FOR FY 2019-24 (BASED ON PUT TO USE)						
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STPP has achieved more than 100% ash utilisation for 2018-19. The same level of efficacy in ash evacuation is expected to continue in ensuing years.

As a part of new initiative, Plant Maintenance (PM) module which is a semi-automated maintenance management process used by prominent generating companies will also be implemented in STPP.

SCCL, through its adequate corporate governance system is taking necessary steps not only for continuous compliance of environment regulation but also towards improvement of the surrounding environment. As such, the Singareni Collieries Company Limited (SCCL) through its all endeavour of business is committed to bring economic and social benefits to the community and especially to marginalised communities through undertaking corporate social responsibility programme.

## 2 Introduction to business plan:

SCCL has established Singareni thermal power plant (STPP) in Jaipur, Telangana in FY 2016-17. SCCL had entered into a Power Purchase Agreement (PPA) with two Distribution companies of Telangana for supplying the total power generated from STPP at a tariff decided by hon'ble Telangana State Electricity Regulatory Commission (TSERC). STPP is supplying all power generated from it to the Discoms of Telangana state in pursuance to the PPA.

The Hon'ble TSERC has notified terms and condition for determination of generation tariff regulation 2019 on 04.01.2019. This regulation shall be applicable to all existing and future generating entities for determination of annual revenue requirement in the state of Telangana from 1st April 2019 to 31st March 2024.

It is submitted that the annual revenue requirement of STPP is required to be determined in accordance with TSERC terms and condition of generation tariff regulation 2019.

The clause 7 (a) of aforesaid generation tariff regulation provides that generators have to submit a business plan for the coming control period. The regulation stipulates that the business plan shall be submitted on or before the 1st April of the year preceding the first year of the control period which would be 1st April 2018. Since the regulation was notified on 4th January, 2019 the business plan is submitted within 31<sup>st</sup> March, 2019, i.e. before the starting of control period 2019-24.

A business plan is a written document prepared after reviewing the business under current environment and strategizing its effort in future periods to enable the business to achieve its defined goal. A business plan is a road map that helps to maximise value of business under actual scenario.

The business plan covers Generation Planning, Capital Investment Plan, future performance targets, efficiency related measures and status of Environmental compliance. The Business Plan also includes financial statements like balance sheet and profit and loss statement for 2019-24 and new initiatives in Generation Business.

### 3 Future Performance Norms

The Hon'ble TSERC has provided operating norms for thermal generating station during next control period vide regulation 17 of terms and condition of generation tariff regulation-2019.

The Hon'ble commission has provided the norms in respect of the following parameters:

1. Annual plan availability factor (target availability)
2. Gross station heat rate
3. Secondary fuel oil consumption
4. Auxiliary energy consumption
5. Transit & handling losses

The Hon'ble commission vide its tariff order dated 19.06.2017 has allowed the following norms for Singareni thermal power plant (2X600 MW).

**Norms of operation approved by the Commission**

Particulars	Units	Approved
Target Availability for recovery of full Fixed Charges	%	85.00%
Target PLF for incentive	%	85.00%
Auxiliary Consumption	%	5.75%
Gross Station Heat Rate	Kcal/kWh	2303.88
Secondary Fuel Oil Consumption	MI/kWh	0.50
Transit Loss (non-pithead)	%	0.80%

The recommendations by Central Electricity Authority (CEA) on plant operating norms for the tariff period 2019-24 are given to Central Electricity Regulatory Commission vide its letter dated 10.12.2018. The same is attached as Appendix A. The broad outlines of the recommendations are given below:

- A. Normative annual plant availability factor (PAF):
  - First financial year after COD: 68.5%
  - Pithead stations: 83%
- B. Normative secondary fuel oil consumption: 0.5 ml/kwh
- C. Gross station heat rate: 1.05xDesign heat rate(kcal/kwh)
- D. Auxiliary energy consumption: 6.25% (with IDCT)
- E. Annual plant load factor for incentive: same which is provided for Normative annual plant availability factor (NAPAF)

F. Further CEA has recommended performance parameters for part load operation.

G. Transit loss: 1.2% to 1.5%

The State Electricity Regulatory Commissions, while determining the norms for the tariff period 2019-24, are also required to consider these recommendation given by CEA.

It is further submitted before the commission that there are three 600 MW units in the state of Telangana till date. One of these units, namely Kakatiya thermal power plant is run by state generating company and rest of the two units are in STPP, SCCL.

The details of these units are mentioned below:

Name of the generating station	Installed capacity	PPA date	Valid upto	COD date
KTPP stage-II	1X600 MW	27.01.2016	23.03.2041	24.03.2016
STPP	2X600 MW	18.01.2016	01.12.2041	U#1:25.09.2016 U#2:02.12.2016

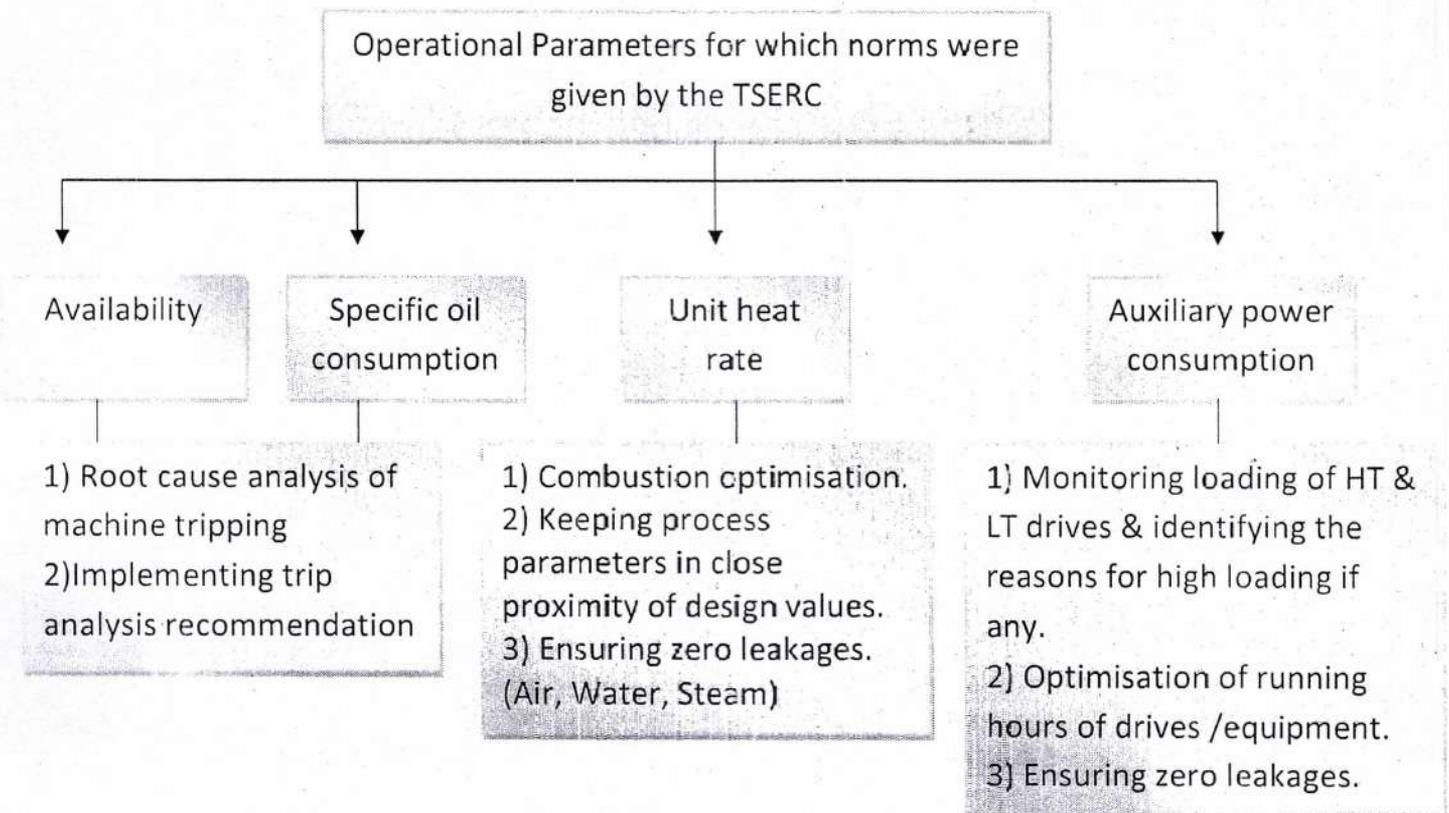
It can be seen from the above table that all these units are having similar technical configuration and are being commissioned in same period. Accordingly, it is required to have a uniform set of operating norms for all these units. The Hon'ble commission has notified the following operating norms for KTPP stage-II vide regulation 17.2 of terms and conditions of generation tariff regulation 2019.

Thermal	Unit	KTPP stage-II
<b>Normative Annual Plant Availability Factor (Target Availability)</b>	%	<b>80.00%</b>
<b>Normative Annual Plant load Factor (for computation of incentive)</b>	%	<b>80.00%</b>
<b>Gross Station Heat Rate</b>	<b>Kcal/kWh</b>	<b>2,400</b>
<b>Secondary fuel oil consumption</b>	<b>ml/kWh</b>	<b>2.0</b>
<b>Auxiliary energy consumption</b>	%	<b>7.00%</b>
<b>Transit and Handling Losses</b>	%	<b>0.80%</b>

The same operating norms is also required to be adopted for STPP. Further, considering the installation of FGD, the norms for auxiliary energy consumption

is required to be increased by 1.5% from 2021-22. The generation planning of STPP shall be done adhering to future operating norm.

#### 4 Efficiency improvement measures:



The Hon'ble commission provides operating norms for availability, specific oil consumption, station heat rate and auxiliary power consumption. These four areas are very critical for computing plant performance. Accordingly, efficiency improvement drives of STPP are largely concentrated on these four areas. Detail action plan in each are given below:

##### 1. Action plan for Increasing the availability of Equipment & Optimisation of Specific Oil Consumption (SOC):

- Necessary engineering modifications, RCA (Root Cause Analysis)
- Trip analyses are being carried out
- Recommendations of trip analysis is implemented to increase the availability of equipment.

##### 2. Action plan for Optimisation of Unit Heat rate:

- Combustion Optimisation i.e. monitoring Unburnt carbon in Bottom Ash and Fly ash.
  - Maintaining %O<sub>2</sub> at APH inlet, Monitoring SPM (Suspended particulate matter), SO<sub>x</sub>, NO<sub>x</sub>, CO<sub>2</sub> at ID fan outlet.
  - Maintaining the process parameters i.e. Main Steam temperature, Pressure, HRH temperature, Condenser Back Pressure, RH Spray, HPH outlet feed water temperatures etc to the design value.
  - Identifying passing in High Energy drains and rectifying the same on opportunity basis.
  - Identifying BFP recirculation valve passing, deaerator overflow valve, deaerator drain valve passing and rectifying the same during opportunity.
  - Monitoring and Ensuring zero leakages (Zero leakages of Air, Water and Steam).
3. Action plan for Optimisation of Auxiliary Power Consumption:
- Monitoring the loading of all HT and LT drives and identifying the reasons of high loading, there after taking corrective actions on opportunity basis.
  - Increasing the Conveyor Belt Utilisation factor of CHP (Coal handling Plant) and avoiding the idle running of Coal Conveyors.
  - %O<sub>2</sub> mapping of FG (Flue Gas) 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 BOP area.

In addition to the above, monthly Unit-wise review on main drivers of operating performances such as Boiler Efficiency, Turbine Heat Rate, Coal Mill Fineness are planned to be carried out. Further, identification of reasons/factors will be carried out based on gaps in performance and corrective action taken accordingly.

Apart from the above, Energy and Technical Auditing by External Agency is planned during the FY 2019-20, which will be useful for identification of further performance improvement possibilities. STPP is one of the DC's (Designated Consumer) of PAT-IV cycle having Registration No-TPP0217TS. It is to state that external auditing is required to implement PAT.

## 5 Generation Planning and Forecasts:

STPP is required to deliver total power generated from the station to TSDiscoms as per power purchase agreement. It is stated that the Ex-bus power is most important from beneficiaries' point of view. Therefore, the generation planning primarily aims to forecasts the sent-out energy during 2019-24.

It is to state that the past performance of STPP is an important parameter to project the future performance. Therefore, scenario analysis specific to plant load factor (PLF) is made based on an optimistic scenario, an average scenario and a most likely scenario.

**5.1 Projection of PLF:**

The COD dates of unit-I and unit-II were 25.09.2016 and 02.12.2016 respectively. The units ran during financial year (FY) 2016-19 in earlier control period. However, during this period the station is expected to complete only two full financial years of operation, i.e., 2017-18 & 2018-19 out of which the performance parameters for 2018-19 can only be estimated. Since, the performance parameters for 2016-17 refers to part year of operation. The performance projections for future years (2019-24) were made based on actual performance of 2017-18 and estimated performance of 2018-19.

The PLF's achieved by STPP during the aforesaid period of 2017-19 ranges from 82.1% to 94.29%. It is stated that under an optimistic scenario STPP could achieve a PLF of 95% for both the units during 2019-24. An average scenario is likely to repeat the performance during 2017-19 which can result into a plant PLF of 87% in the next control period. A most likely scenario is estimated based on the equal weightage of plant load factors under optimistic scenario and average scenario. The detail of PLF projections are given below:

**Table 1A : Projection of PLF -*Optimistic Scenario***

Serial No	Unit / Station	Capacity in MW	Previous Year			Ensuing year				
			2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
			Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected
1	Unit 1	600	77.43%	87.48%	84.87%	95%	95%	95%	95%	95%
2	Unit 2	600	83.10%	94.29%	82.10%	95%	95%	95%	95%	95%
3	STPP station	1200	79.64%	90.88%	83.48%	95%	95%	95%	95%	95%

**Table 1B :Projection of PLF -*Average Scenario* ( Based on the average of actual PLF during 2017-19)**

Serial No	Unit / Station	Capacity in MW	Previous Year			Ensuing year				
			2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
			Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected

1	Unit 1	600	77.43%	87.48%	84.87%	86%	86%	86%	86%	86%
2	Unit 2	600	83.10%	94.29%	82.10%	88%	88%	88%	88%	88%
3	STPP station	1200	79.64%	90.88%	83.48%	87%	87%	87%	87%	87%

The projection of PLF during 2019-24 in the above table is made based on average of actual PLF during 2017-19.

Table 1C : Projection of PLF -*Most likely* ( Based on the average of the above two scenario)

Serial No	Unit / Station	Capacity in MW	Previous Year			Ensuing year				
			2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
			Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected
1	Unit 1	600	77.43%	87.48%	84.87%	91.09%	91.09%	91.09%	91.09%	91.09%
2	Unit 2	600	83.10%	94.29%	82.10%	91.09%	91.09%	91.09%	91.09%	91.09%
3	STPP station	1200	79.64%	90.88%	83.48%	91.09%	91.09%	91.09%	91.09%	91.09%

The projection of PLF during 2019-24 in the above table is made based on average PLF projected in table 1A and 1B.

## 5.2 Projection of auxiliary energy percentage :

The auxiliary energy allowed for KTPP stage II (1 x 600 MW) during 2016-19 was 7%. The Hon'ble commission is prayed to allow the same norms in case of STPP.

However, STPP is required to establish flue gas de-sulphurization (FGD) plant to meet emission standard as per applicable environmental stipulation. The FGD plant is expected to be commissioned in January 2021. This FGD plant is estimated to consume 1.5% additional auxiliary energy to run its different systems such as:

- Absorption system.
- Lime stone preparation system.
- Primary gypsum dewatering system.
- Gypsum dewatering system.
- Process water system.
- Flue gas duct booster fans and dampers.
- Lime stone handling system.
- Gypsum handling system.
- Auxiliary storage system.
- Hoisting system/ other miscellaneous system.

Accordingly, the projected auxiliary energy for 2019-24 is given below:

**Table 2 : Projection of Auxiliary energy (%)**

Serial No	Unit / Station	Capacity in MW	Previous Year			Ensuing year				
			2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
			Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected
1	Unit 1	600	6.33%	5.92%	5.69%	7.00%	7.00%	7.42%	8.50%	8.50%
2	Unit 2	600	7.02%	6.00%	5.75%	7.00%	7.00%	7.24%	8.50%	8.50%
3	STPP station	1200	6.61%	5.96%	5.67%	7.00%	7.00%	7.33%	8.50%	8.50%

### 5.3 Projection of net generation quantum:

The projection of net generation (Ex-bus) is made considering the projections of PLF percentages in most likely scenario and projection of auxiliary energy in percentage. The details of projected net generation for FY 2019-24 are given below:

**Table 3 :Projection of net generation**

Serial No	Unit / Station	Capacity in MW	Previous Year			Ensuing year				
			2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
			Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected
1	Unit 1	600	1965.26	4333.36	4204.49	4464.83	4452.63	4432.43	4380.81	4392.81
2	Unit 2	600	1342.08	4670.76	4066.84	4464.83	4452.63	4441.02	4380.81	4392.81
3	STPP station	1200	3307.34	9004.12	8271.32	8929.65	8905.26	8873.45	8761.62	8785.63

### 5.4 Projection of Gross energy quantum:

Projection of gross energy is made based on net energy projection as given above after adding back projected auxiliary energy consumption. The projected gross energy for the period 2019-24 is tabulated below:

**Table 4:Projection of gross generation**

Serial No	Unit / Station	Capacity in MW	Previous Year			Ensuing year				
			2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
			Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected
1	Unit 1	600	2098.03	4606.07	4458.06	4800.89	4787.77	4787.77	4787.77	4800.89
2	Unit 2	600	1443.43	4969.09	4310.58	4800.89	4787.77	4787.77	4787.77	4800.89
3	STPP station	1200	3541.46	9575.16	8768.64	9601.78	9575.54	9575.54	9575.54	9601.78

### 5.5 Projection of Aux quantum:

The projected auxiliary energy in Million Unit (MU) is arrived from projections of gross generation and net generation. The projected auxiliary energy (MU) is given as below:

**Table 5 : Projection of Auxiliary energy (MU)**

Serial No	Unit / Station	Capacity in MW	Previous Year			Ensuing year				
			2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
			Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected
1	Unit 1	600	132.77	272.71	253.57	336.06	335.14	355.34	406.96	408.08
2	Unit 2	600	101.35	298.33	243.74	336.06	335.14	346.75	406.96	408.08
3	STPP station	1200	234.12	571.04	497.32	672.12	670.29	702.10	813.92	816.15

### 5.6 Planning of overhauling and month wise generation:

Original equipment manufacture of the units has prescribed to arrange annual overhauling for each of the units in alternative years. Therefore, the estimated energy is required to be in sync with planned machine overhauling schedule and estimated forced shut down events. Accordingly, it is required to arrive at projection of monthly planned generation considering overhauling schedule and outages.

The planned annual overhauling of unit-I & unit-II of STPP is given below:

**Table 6: Planned Annual Overhauling**

Unit	Ensuing year				
	2019-20	2020-21	2021-22	2022-23	2023-24
	Projected	Projected	Projected	Projected	Projected
Unit 1	1st July to 14th August ( 45 Days)	-	1st May to 14th June (45 Days)	-	1st July to 14th August ( 45 Days)
Unit 2	-	1st May to 14th June (45 Days)	-	1st July to 14th August ( 45 Days)	-

The estimated PLF for STPP in 2019-24 is 91.09%. It can be observed from the above that during each year of the next control period one of the units is scheduled for annual overhauling for 45 days. Therefore all the units need to run at a PLF higher than the estimated PLF to compensate for generation loss during overhauling.

Accordingly, the modified PLF for the station STPP during its period in operation is computed as 97.074%. It is to state that the units of STPP need to run at 97.074% PLF during its period of operation to achieve a PLF of 91.09%. The computed figure of 97.074% changes slightly to 97.057% in leap years.

Considering no constraint in obtaining the primary inputs of power generation the only significant factor influencing the value of achievable PLF is on percentage outages. The percentage of outage is generally considered as 2%. Therefore, the consideration of 97% PLF during the period of operation is in line with common outage statistics.

**5.7 Monthly gross generation planning for Unit1**

The details of monthly generation planning considering the overhauling schedules are given below for Unit1 in the tables 7A to 7C .

Table 7A : FY 2019-20 & 2023-24 ( with projected overhauling at same period)

Month	Days in Month	Overhauling Details	Days in operation	Max gross Generation possible with planned overhauling	2019-20	2023-24	
					Projected	Projected	
April	30	FY 2019-20 & 2023-24 :1st July to 14th August (45 Days)	30	432.00	419.29	419.29	
May	31		31	446.40	433.27	433.27	
June	30		30	432.00	419.29	419.29	
July	31		0	0.00	0.00	0.00	
August	31		17	244.80	237.60	237.60	
September	30		30	432.00	419.29	419.29	
October	31		31	446.40	433.27	433.27	
November	30		30	432.00	419.29	419.29	
December	31		31	446.40	433.27	433.27	
January	31		31	446.40	433.27	433.27	
February	29		29	417.60	405.32	405.32	
March	31		31	446.40	433.27	433.27	
<b>Total</b>	<b>366</b>			<b>321</b>	<b>4622.40</b>	<b>4486.96</b>	<b>4486.42</b>

Table 7B :FY 2020-21 & 2022-23 (Non overhauling Years)

Month	Days in Month	Overhauling Details	Days in operation	Max gross Generation possible	2020-21	2022-23	
					Projected	Projected	
April	30	Non overhauling years	30	432.00	419.37	419.37	
May	31		31	446.40	433.35	433.35	
June	30		30	432.00	419.37	419.37	
July	31		31	446.40	433.35	433.35	
August	31		31	446.40	433.35	433.35	
September	30		30	432.00	419.37	419.37	
October	31		31	446.40	433.35	433.35	
November	30		30	432.00	419.37	419.37	
December	31		31	446.40	433.35	433.35	
January	31		31	446.40	433.35	433.35	
February	28		28	403.20	391.41	391.41	
March	31		31	446.40	433.35	433.35	
<b>Total</b>	<b>365</b>			<b>365</b>	<b>5256</b>	<b>5102.30</b>	<b>5102.30</b>

**Table 7C: FY 2021-22**

Month	Days in Month	Overhauling Details	Days in operation	Max gross Generation possible with planned overhauling	2021-22	
					Projected	
April	30	FY 2021-22 :1st May to 14th June (45 Days)	30	432.00	419.36	
May	31		0	0.00	0.00	
June	30		16	230.40	223.66	
July	31		31	446.40	433.34	
August	31		31	446.40	433.34	
September	30		30	432.00	419.36	
October	31		31	446.40	433.34	
November	30		30	432.00	419.36	
December	31		31	446.40	433.34	
January	31		31	446.40	433.34	
February	28		28	403.20	391.40	
March	31		31	446.40	433.34	
<b>Total</b>	<b>365</b>			<b>320</b>	<b>4608.00</b>	<b>4473.17</b>

**5.8 Monthly gross generation planning for Unit 2**

The details of monthly generation planning considering the overhauling schedules are given below for Unit 2 in the tables 8 A to 8C .

**Table 8A : FY 2019-20,2021-22 and 2023-24 ( Non overhauling Years)**

Month	Days in Month	Overhauling Details	Days in operation	Max gross Generation possible	2019-20	2021-22	2023-24	
					Projected	Projected	Projected	
April	30	Non overhauling years	30	432.00	419.29	419.37	419.29	
May	31		31	446.40	433.27	433.35	433.27	
June	30		30	432.00	419.29	419.37	419.29	
July	31		31	446.40	433.27	433.35	433.27	
August	31		31	446.40	433.27	433.35	433.27	
September	30		30	432.00	419.29	419.37	419.29	
October	31		31	446.40	433.27	433.35	433.27	
November	30		30	432.00	419.29	419.37	419.29	
December	31		31	446.40	433.27	433.35	433.27	
January	31		31	446.40	433.27	433.35	433.27	
February	28/29		28/29	403.2/417.6	405.31	391.40	405.31	
March	31		31	446.40	433.27	433.35	433.27	
<b>Total</b>	<b>365/366</b>			<b>365/366</b>	<b>5256/5270.4</b>	<b>5115.35</b>	<b>5102.29</b>	<b>5115.35</b>

Table 8B : FY 2020-21

Month	Days in Month	Overhauling Details	Days in operation	Max gross Generation possible with planned overhauling	2020-21	
					Projected	
April	30	2020-21:1st May to 14th June (45 Days)	30	432.00	419.37	
May	31		0	0.00	0.00	
June	30		16	230.40	223.66	
July	31		31	446.40	433.35	
August	31		31	446.40	433.35	
September	30		30	432.00	419.37	
October	31		31	446.40	433.35	
November	30		30	432.00	419.37	
December	31		31	446.40	433.35	
January	31		31	446.40	433.35	
February	28		28	403.20	391.41	
March	31		31	446.40	433.35	
<b>Total</b>	<b>365</b>			<b>365</b>	<b>4608.00</b>	<b>4473.25</b>

Table 8C : FY 2022-23

Month	Days in Month	Overhauling Details	Days in operation	Max gross Generation possible with planned overhauling	2022-23	
					Projected	
April	30	FY 2022-23:1st July to 14th August (45 Days)	30	432.00	419.37	
May	31		31	446.40	433.35	
June	30		30	432.00	419.37	
July	31		0	0.00	0.00	
August	31		17	244.80	237.64	
September	30		30	432.00	419.37	
October	31		31	446.40	433.35	
November	30		30	432.00	419.37	
December	31		31	446.40	433.35	
January	31		31	446.40	433.35	
February	28		28	403.20	391.41	
March	31		31	446.40	433.35	
<b>Total</b>	<b>365</b>			<b>320</b>	<b>4608.00</b>	<b>4473.25</b>

5.9 Monthly gross generation, Net generation and auxiliary generation of STPP

A final compilation of monthly Gross generation, Net generation & Aux energy consumption of the station based on above unit wise planned generations is given in ensuing tables

**Table 9: Monthly gross generation of STPP ( 2 x 600)**

Month	Previous Year			Ensuing year				
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	<i>Actual</i>	<i>Actual</i>	<i>Estimated</i>	Projected	Projected	Projected	Projected	Projected
April		755.52	719.22	838.58	838.73	838.73	838.73	838.58
May		715.84	806.54	866.54	433.35	433.35	866.69	866.54
June		691.20	454.44	838.58	643.03	643.03	838.73	838.58
July		761.04	644.51	433.27	866.69	866.69	433.35	433.27
August		878.81	803.57	670.87	866.69	866.69	670.99	670.87
September	5.87	810.76	864.33	838.58	838.73	838.73	838.73	838.58
October	304.06	861.80	880.43	866.54	866.69	866.69	866.69	866.54
November	363.93	780.00	524.31	838.58	838.73	838.73	838.73	838.58
December	598.33	888.42	494.57	866.54	866.69	866.69	866.69	866.54
January	726.25	826.61	877.12	866.54	866.69	866.69	866.69	866.54
February	766.53	754.57	806.40	810.63	782.82	782.81	782.82	810.63
March	776.49	850.59	892.80	866.54	866.69	866.69	866.69	866.54
<b>Total</b>	<b>3541.46</b>	<b>9575.16</b>	<b>8768.64</b>	<b>9601.77</b>	<b>9575.54</b>	<b>9575.54</b>	<b>9575.54</b>	<b>9601.77</b>

**Table 10: Monthly auxiliary generation of STPP ( 2 x 600) in percentage**

Month	Previous Year			Ensuing year				
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	<i>Actual</i>	<i>Actual</i>	<i>Estimated</i>	Projected	Projected	Projected	Projected	Projected
April		6.57%	5.56%	7.00%	7.00%	7.00%	8.50%	8.50%
May		6.52%	5.47%	7.00%	7.00%	7.00%	8.50%	8.50%
June		6.54%	5.94%	7.00%	7.00%	7.00%	8.50%	8.50%
July		6.20%	5.86%	7.00%	7.00%	7.00%	8.50%	8.50%
August		5.82%	5.79%	7.00%	7.00%	7.00%	8.50%	8.50%
September	29.98%	5.90%	5.23%	7.00%	7.00%	7.00%	8.50%	8.50%
October	6.57%	5.81%	5.50%	7.00%	7.00%	7.00%	8.50%	8.50%
November	6.28%	5.90%	6.28%	7.00%	7.00%	7.00%	8.50%	8.50%
December	7.00%	5.49%	6.29%	7.00%	7.00%	7.00%	8.50%	8.50%
January	6.55%	5.68%	5.30%	7.00%	7.00%	7.81%	8.50%	8.50%
February	6.64%	5.62%	5.75%	7.00%	7.00%	8.50%	8.50%	8.50%
March	6.34%	5.77%	5.75%	7.00%	7.00%	8.50%	8.50%	8.50%
<b>Total</b>	<b>6.61%</b>	<b>5.96%</b>	<b>5.67%</b>	<b>7.00%</b>	<b>7.00%</b>	<b>7.33%</b>	<b>8.50%</b>	<b>8.50%</b>

Table 11 : Monthly Ex Bus Generation of STPP ( 2 x 600) in MU

Month	Previous Year			Ensuing year				
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Actual	Actual	Estimated	Projected	Projected	Projected	Projected	Projected
April		705.90	679.24	779.88	780.02	780.02	767.44	767.30
May		669.14	762.40	805.88	403.01	403.01	793.02	792.88
June		645.97	427.43	779.88	598.02	598.02	767.44	767.30
July		713.86	607.15	402.94	806.02	806.02	396.51	396.44
August		827.70	757.04	623.91	806.02	806.02	613.95	613.84
September	4.11	762.92	819.09	779.88	780.02	780.02	767.44	767.30
October	284.09	811.72	831.99	805.88	806.02	806.02	793.02	792.88
November	341.09	733.96	491.39	779.88	780.02	780.02	767.44	767.30
December	556.47	839.66	463.44	805.88	806.02	806.02	793.02	792.88
January	678.68	779.63	830.66	805.88	806.02	799.00	793.02	792.88
February	715.66	712.19	760.03	753.88	728.02	716.27	716.28	741.72
March	727.25	801.47	841.46	805.88	806.02	793.02	793.02	792.88
<b>Total</b>	<b>3307.34</b>	<b>9004.12</b>	<b>8271.32</b>	<b>8929.65</b>	<b>8905.26</b>	<b>8873.49</b>	<b>8761.62</b>	<b>8785.62</b>

It is to further note that the generation planned after considering overhauling (Table 11) matches with net generation quantum projected by considering most likely scenario at 91.09 % PLF (Table 3).

## 6 Coal Planning

It is stated that SCCL was allotted Naini coal block in Orissa for running of 2X600 MW STPP.

The Naini coal block is expected to start production in 2021 after obtaining all necessary clearances & establishing required infrastructure facilities. As per the mining plan submitted to the authorities, Naini is expected to reach its peak rated capacity (PRC) by 2023.

It is submitted that SCCL has requested the standing linkage committee (Long-Term) for power sector to extend bridge linkage of coal for 2X600 MW STPP at Pegadapalli, Telangana.

The standing linkage committee, after considering the representation by SCCL has recommended the extension of bridge linkage of STPP upto 2023, the extension is in accordance with approved mining plan of Naini in the meeting held on 10.04.2018.

The relevant letter of recommendation forwarded to CMD, Coal India Limited & CMD, Singareni Collieries Company Limited is enclosed as **Appendix B**

The bridge linkage of coal recommended for STPP shall be sourced from the existing coal mines of SCCL all of which are located in the State of Telangana.

As per the provisional coal linkage plan for 2019-20, SCCL shall arrange 60 lakh ton coal from SCCL mines for STPP. Most of this coal requirement will be met by utilising rail mode of coal transportation.

It is to submit that once coal production starts from the Naini coal block & the coal there from is sourced to STPP, SCCL will separately file an application for determination of input coal price from Naini integrated coal mine. An integrated coal mine is one which is allocated for use in one or more identified generating station. The input price is required to be determined for computing energy charge. The application for determination of such input price shall be made in line with the relevant regulation of Hon'ble central electricity regulatory commission.

It is to further submit that SCCL is also considering the possibility of swapping Naini coal block considering its distance from Singareni thermal power plant .It is estimated that the transportation cost of coal from Naini to STPP will be significant as a ratio to total coal cost. However, the total coal cost is expected to be reasonable.

## **7 Ash evacuation (Compliance to environmental norms)**

As per MoEF notification no S.O. 2804 (E) dated 03.11.2009, the coal based thermal power plants have to achieve a fly ash utilisation target of 100%.

Further, the MoEF in serial no (xvi) of specific conditions of environment clearance issued to STPP provided that the utilisation of 100% fly ash by STPP shall be made from fourth year of operation. The unutilised ash of one period, if any is also permitted to be utilised in the coming years over and above 100% level of utilisation of current ash.

MoEF in its notification has defined that 'fly ash' for the purpose of this regulation includes all kinds of ash generated such as ash in electrostatic precipitator, dry fly ash, bottom ash or pond ash as the objective of the notification is to use all the ashes.

STPP has organised its ash management activity to comply the specific condition laid out in the environment clearance issued by MoEF in respect of ash utilisation. The ash utilisation vis-à-vis ash generated is given in the following table.

**Table 12: Ash generated and utilised in STPP ( 2 x 600)**

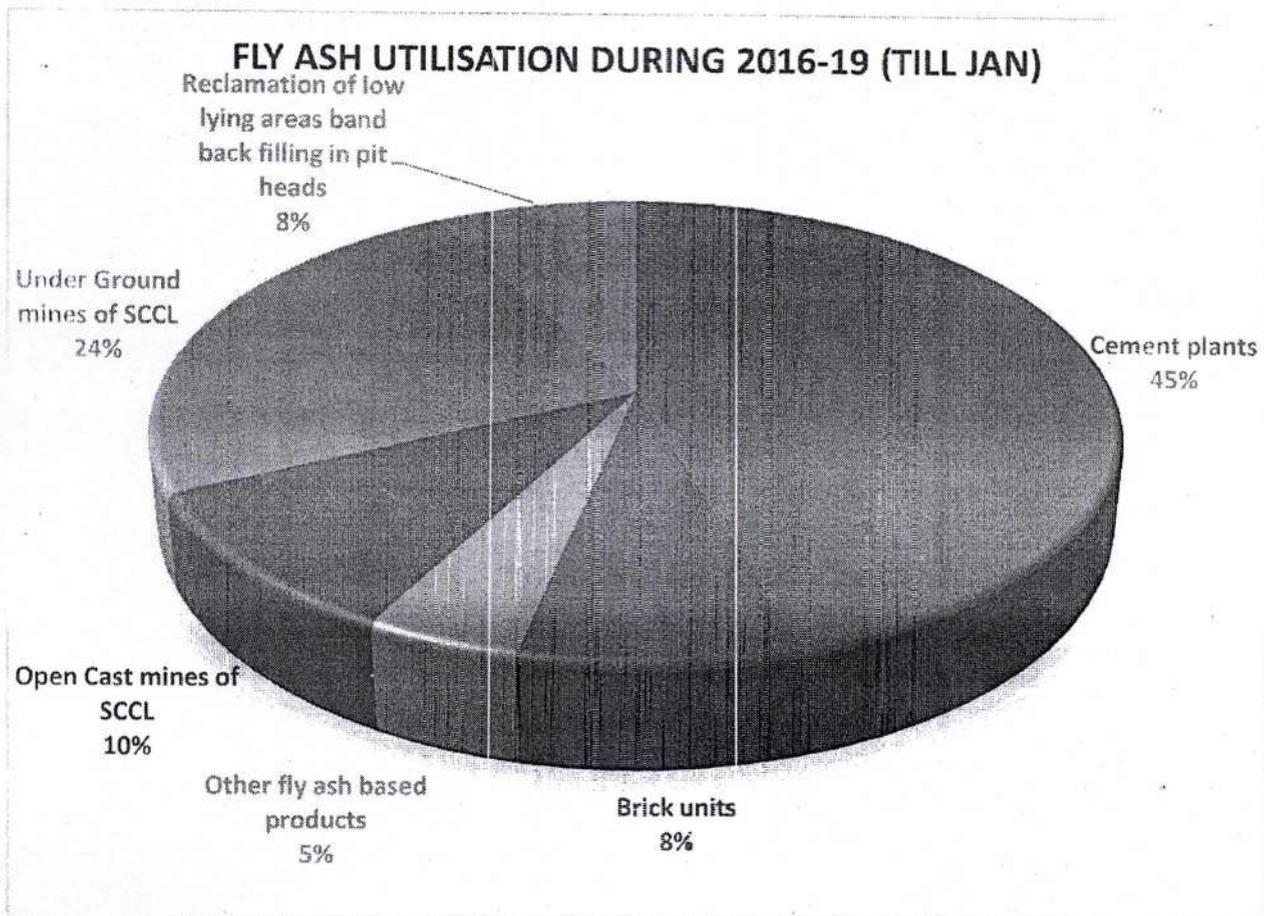
Financial Year	Quantity of Ash Generated (MMT)	Quantity of Ash Disposed (MMT)	% utilization of ash
2016-17	0.88	0.77	88%
2017-18	2.19	1.99	91%
2018-19 (Till Jan)	1.33	1.41	106%
Total	4.40	4.18	95%

**MMT = Million Metric Ton**

It is submitted that STPP has achieved high percentage of ash utilisation even in very early years of operation and on cumulative basis it has reached 95% utilisation of fly ash till January 2019.

The fly ash generated from STPP was used in Cement plants, Brick units , Open Cast mines of SCCL and in manufacturing activity of other fly ash-based product. The fly ash is also used for reclamation of low-lying areas by back filling in pit heads. The bottom ash utilisation is made in the under-Ground mines of SCCL.

A summary chart providing the relative contribution of aforesaid activities in fly ash evacuation is given below:



The effective ash management shall be an on-going process in STPP and will be a key driver for completing environmental norms in coming years of operation. The ash evacuation target shall be 100% for the ensuing control period.

### 8 Capital investment Plan

Hon'ble TSERC has notified terms and condition of generation tariff regulation 2019 (Regulation no 1 of 2019) for determination of Multiyear tariff for the period 2019-24. Regulation 7(b) of aforesaid tariff regulation stipulates the generator to submit capital investment plan for 2019-24 at the beginning of the control period for the existing capacity.

The capital investment plan (CIP) for STPP is prepared primarily based on capital expenditure towards compliance of new pollution norms for which DPR was prepared by M/s NTPC limited and capital expenditure for procurement of critical modules for which cost estimate is obtained from original equipment

manufacturer (OEM). The other part of CIP is proposed for works required for railway siding and for civil work in main plant area and township area.

Proposed expenditure of CIP is given in the table below:

SUMMARY OF CAPITAL INVESTMENT PLAN FOR FY 2019-24 ( BASED ON PUT TO USE)							
(IN Crores)							
SL NO	DESCRIPTION	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
1	FLUE GAS DE-SULPHURISATION SYSTEM (FGD)	0	0	645.32	0	0	645.32
2	IN-FURNACE MODIFICATIONS FOR NOX MITIGATION	0	15	19	0	0	38
3	OPERATION & MAINTENANCE MODULES	153.10	82.95	65.12	0	0	301.18
4	RAILWAY WORKS	26.94	24.50	79.60	0	0	131.03
5	ERECTION WORKS IN MAIN PLANT	26.91	20.98	8.00	0	0	55.89
6	TOWNSHIP CIVIL WORKS	7.81	10.20	6.14	0	0	24.15
	Total	214.75	157.63	823.18	0	0	1195.57

Further, as it is difficult to project the capital expenditure for 2019-24 as per Ind AS 16, STPP has sought permission from the Hon'ble commission in capital investment plan to submit these expenditures during Mid-term review and End of control period review on actual basis for consideration of the commission.

## 9 New Initiatives:

- A. Thermal power plants are considered operating successfully if it could achieve normative operating parameters provided by the regulators. An efficient maintenance process is required to be followed for operating the plant within the given set of operating norms.

A power plant has to operate its equipment in such a manner that it reduces equipment failures which could otherwise cause breakdowns/outages resulting the plant either to operate inefficiently or to run in a potentially unsafe condition. Accordingly, it is felt necessary to enhance maintenance effort by adopting automated procedures which will help to reduce losses as a result of human error.

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 shut down condition of plant) and predictive maintenance (condition-based monitoring).

The primary activities in any maintenance work are procurement of material and services, work clearance management (permit system), maintenance and refurbishment process.

It is submitted that Plant Maintenance (PM) module is one of the packages under ERP (Enterprise Resource Planning) and is a well-recognised semi-automated maintenance management process used by prominent generating companies such as NTPC.

This is used at various levels in the decision-making process as an instrument for monitoring, controlling and planning maintenance activity in co-ordination with operational requirement and material management processes. The module provides integrated business reports based on inputs entered into customised data sheets. This ultimately helps in reducing the duration & associated cost of machine down time if compared with the same in case of maintenance activity is undertaken through human effort only.

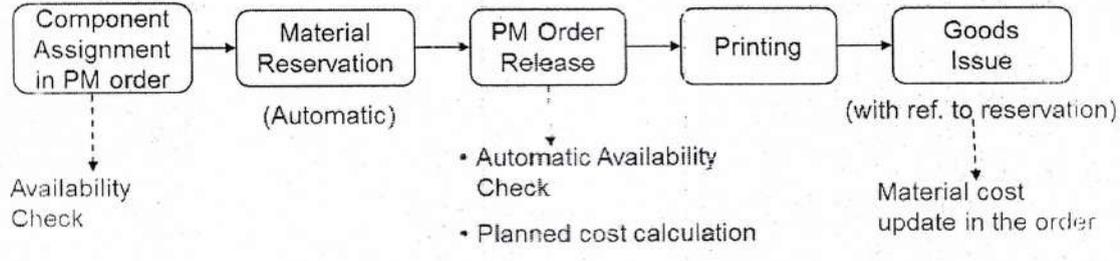
The PM module is capable to process the following important works:

1. Raising notification
2. Maintenance orders
3. Work clearance management
4. Material booking
5. Service booking
6. Measurement document creation
7. Overhauling monitoring
8. Activity base budgeting
9. Overhauling preparedness index
10. Report analysis

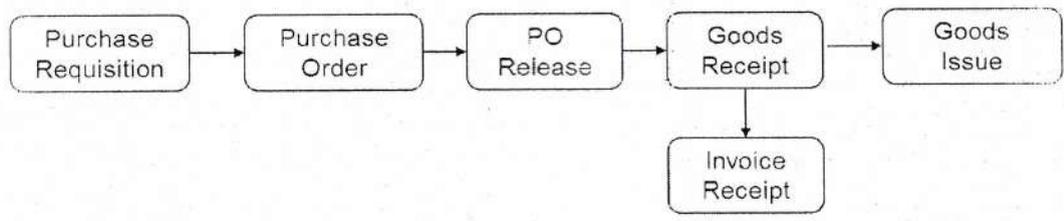
Details of material booking activity for the materials available in stock and the materials which are required to be purchased (not available in stock) is given below:

Material booking

**Stock Component**



**Non-stock Component**



This new initiative is expected to provide the deliverables from the beginning of the financial year 2020-21. It is also envisaged that fine tuning of the system and adoption of the same by operation and maintenance executives may require another 1 -2 years from the date of its first use.

B. The existing lighting in the main plant and colony area are comprising of high-pressure sodium vapour lamps (HPSV) and compact fluorescent lamps (CFL). It is to submit that these lightings if upgraded to LEDs, will result in significant savings in power consumption. It is estimated that 8.704 MUs will be saved annually from this upgradation. The total cost for replacing the existing lights in two phases is estimated around 5 Crores.

It is prayed before the commission to allow one-time investment in this project under ARR of 2019-20 and the savings from this expenditure may be allowed to invest in colony infrastructure and maintenance works necessary.

**10 Manpower Of STPP:**

Singareni Collieries Company Limited from its experience of running coal mines for hundred years and especially from its unique experience in turning around from a loss-making company to a profit earning company from 1996-97 knows that the business could be successfully managed by creating package wise contracts.

Work specific to these package wise contracts may be awarded to industry experts who extend their service at competitive cost. Once these packages are awarded to the successful bidders, the SCCL team has to monitor and review their performance on regular basis. The SCCL personnel also need to look into compliance of all applicable regulation including safety and provide for day to day administration and financial management.

When SCCL has ventured into the power business, management had decided to extend its practice of awarding operation contract in power business too.

It is to state that SCCL has awarded operation & maintenance service contract for 2X600 MW STPP initially for three years from June 2016. SCCL also posted 150 employees to STPP (as on 31<sup>st</sup> Jan, 2019) on its direct payroll for supervision of O&M contractor, administration, financial management and regulatory compliance of the project.

The detail of SCCL executives and staffs posted in STPP is given below:

SI.NO	EXECUTIVES		STAFF	
	Grade	No. of Emp working	Grade	No. of Emp working
1	E9 Grade	1	<b>Clerical – Grade</b>	
2	E8 Grade	3	Grade - 1	1
3	E7 Grade	19	Grade - 2	33
4	E6 Grade	19	<b>Technical &amp; Supervisory Grade</b>	
5	E5 Grade	11	Grade A1	1
6	E4 Grade	6	Grade A	2
7	E3 Grade	17	Grade B	3
8	E2 Grade	1	Grade C	6
9	E1 Grade	2	Grade D	6
10			Grade E	4
11			Grade F	14
12			Grade G	1
13			Grade H	1
	<b>TOTAL</b>	<b>79</b>	<b>TOTAL</b>	<b>72</b>
<b>GRAND TOTAL - 79+72 = 151</b>				

Further, the O&M contractor has employed 338 executives/skilled manpower in STPP site and engaged different sub-contractors. SCCL also engaged contractors for other jobs such as civil works, catering works, internal security work and O&M of railway track. The full details of manpower engaged in the project are tabulated below:

work and O&M of railway track. The full details of manpower engaged in the project are tabulated below:

**Break up of Manpower of STPP : 1820**

1. SCCL Employees	151
2. Plant O&M contract (Steag Energy services Pvt.Ltd )	338
3. Power Mech Projects Pvt.Ltd	824
4. Progress Consultancy Services	55
5. A.Rajesham & Company	84
6. Civil contractors	221
7. Catering contractor	22
8. Security contractor	67
9. Railway track O&M contract	58
<b>Total</b>	<b>1820</b>

The contracts awarded to different agencies created job opportunities in the local community. It is stated that 361 land losers and 312 local persons were engaged by these agencies as on date in different types of general work of unskilled & semi-skilled nature.

The O&M contract is extendable for two more years at the option of SCCL. The performance of O&M contractor is well within the limit set for broad performance parameters in the O&M contract. Management is also inclined to undertake O&M activity of STPP only through reputed outside contractors. Accordingly, SCCL may opt for extending the O&M contract upto June 2021. Accordingly, other contracts and the manpower structure in present form is expected to continue till 2021. Therefore, the organisational structures and the human resource utilisation for STPP during the control period 2019-24 will not change significantly.

**11 Training for the STPP personnel:**

SCCL has taken initiative to train its executives and staffs on different aspects of power plant. It has also arranged plant visits to nearby NTPC plant at Ramagundem and to TSGENCO plant in Bhupalpally for its executives.

technical and safety aspects. Further, as per para 3.30(p) of the contract, the O&M contractor is required to provide necessary training to its O&M personnel to discharge their duties in efficient and professional manner.

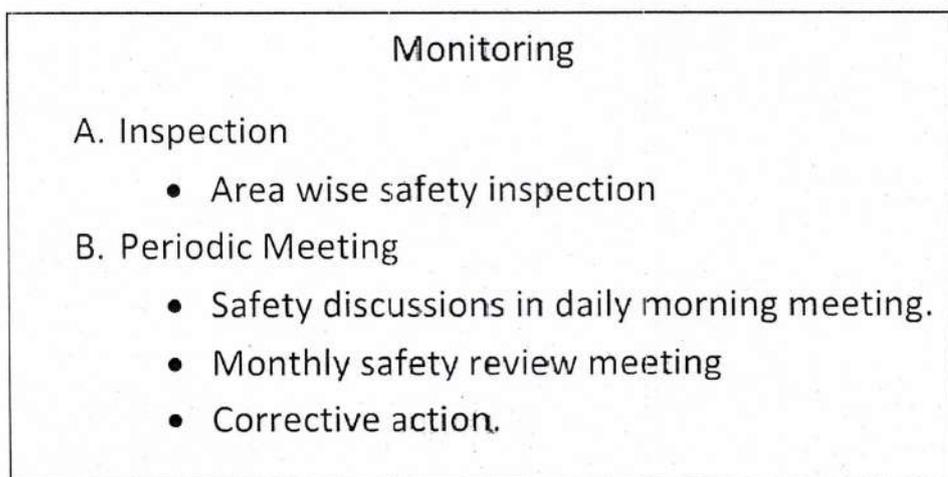
In the coming tariff period 2019-24 it is planned to review the training efforts made by O&M contractor periodically. Training need assessment for on roll employee of STPP will be carried by respective heads of departments. All the employees of STPP, SCCL will be provided at least 4-5 days training per year in accordance with assessment report. Further, the employees will be encouraged to attend professional seminar, management development programme and safety workshops. The employee training initiatives will be taken up by personnel section of STPP in co-ordination with HRD department in Corporate, Kothagudem.

**Training plan for 2019-24**

Participant	Tools for training
Employee of SCCL	<ul style="list-style-type: none"> <li>➤ Training need assessment by HOD's</li> <li>➤ 4-5 days training in a year</li> <li>➤ Professional seminar</li> <li>➤ Management development programme</li> <li>➤ Safety seminar</li> </ul>
Employee of O&M contractor	<ul style="list-style-type: none"> <li>➤ Obligation is on contractor as per para 3.10 &amp; 3.30(p) of the contract</li> <li>➤ Monitoring by SCCL</li> </ul>

**12 Safety Management:**

STPP gives very high importance to safety management , both process safety and safety of human being. A broad activities of safety management followed in STPP is given below:



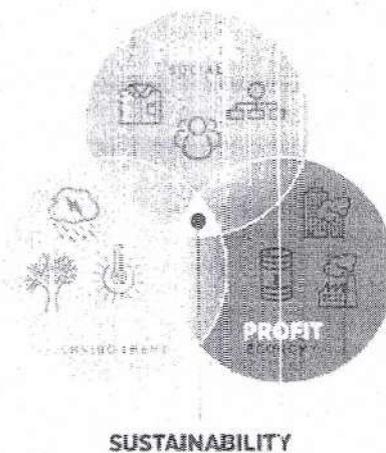
People Safety	Process Safety	Emergency response
<p>A. Awareness</p> <ul style="list-style-type: none"> <li>• Safety posters</li> <li>• Safety competition</li> <li>• Signage board</li> </ul> <p>B. Training</p> <ul style="list-style-type: none"> <li>• Induction training</li> <li>• tool box talk</li> <li>• job specific training</li> </ul> <p>C. Safety equipment</p> <ul style="list-style-type: none"> <li>• Fire safety system</li> <li>• Personal safety equipment.</li> </ul>	<p>A. Safety Operating Procedures (SOP)</p> <p>B. Permit to work (PTW)</p>	<p>A. Mock drill</p> <p>B. Available communication system</p> <p>C. Emergency siren</p> <p>D. 24 hours ambulance</p> <p>E. Reporting &amp; compliance</p>

The effective safety management shall be an on-going process in STPP and will be a key driver of future performance in coming years of operation.

### 13 Corporate Social Responsibility

SCCL mission is to excel in a competitive business environment and to emerge as a responsible company through sound corporate governance by laying emphasis on protection of environment ecology and performance.

Singareni Collieries Company Limited recognises that making triple bottom line impact is important in successful running of all its business including Singareni Thermal Power Plant (2X600 MW). The triple bottom line refers to managing Social, Environmental, and Financial factors effectively which ultimately results into sustainable profit & business growth.



The company also recognises that sustainable development and growth in business through ethical business practices and responsible governance is the key to fulfil the social obligation towards communities.

The company also recognises that sustainable development and growth in business through ethical business practices and responsible governance is the key to fulfil the social obligation towards communities.

The company through its adequate governance system is taking necessary steps not only for continuous compliance of environment regulation but also towards improvement of the surrounding environment. As such, the Singareni Collieries Company Limited (SCCL) through its all endeavour of business is committed to bring economic and social benefits to the community and especially to marginalised communities through undertaking corporate social responsibility programme.

It is to state that Ministry of environment and forest (MoEF) in its environment clearance dated 27.12.2010 in respect of Singareni Thermal Power Plant had directed to comply a set of specific and general conditions. The MoEF in para 4.(a) (xxiv) has included specific provision towards CSR programme which is given below:

*“(xxiv) An amount of Rs. 22.10 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs. 4.10 Crores per annum shall be earmarked as recurring expenditure for CSR activities.....”*

On account of Corporate Social responsibility (CSR), STPP has taken initiatives in the heads of infrastructure development, training of land looser, environmental woks and conducted medical camps for nearby villagers.

Under the infrastructure related work, laying of concrete roads was done in Rasulpalli village, laying of approach road was made from NH-63 to Devulawada, construction of bore wells and development works were taken up in nearby villages of Bheemaram, Ramaraopet, Elakanti, Jaipur, Narsingapur, Gangipelli, Peddapalli, Shetpalli, Tekumatla, Kishtapur, Mudhigunda, Dhevulawada, Rampur, and Kollur in Mancherial District.

STPP expended Rs.13.10 Crore on account of CSR till date. The CSR activity has covered 34 villages around the power plant. It is stated that the balance of capital cost that is required to be used for CSR activities as per the condition laid down by MoEF amounts to 9 Crores which will be utilised as spill over in the next control period.

Singareni Collieries Company Limited has framed its own CSR policy in accordance with provisions of companies act 2013. The policy which is also

development for marginalised communities like SC and ST's. The new policy also supersedes the earlier policy on CSR which was known as Surrounding Habitat Assistance Programme (SHAPE).

Meanwhile a team from STPP visited nearby power plant of NTPC at Ramagundem to understand CSR activities generally under taken by a power plant.

It is stated that STPP has planned to undertake CSR activity from following considerations in the coming tariff period of 2019-24:

1. Proposed CSR activity has to be in accordance with CSR policy of SCCL.
2. STPP shall at least utilise an amount of 4.4 Crore per annum in CSR activity to comply the conditions of environmental clearance given by MoEF.
3. STPP being a major power plant in the state of Telangana will also follow NTPC practise of CSR activity.

In the coming period, CSR expenditure will be utilised in six broad heads, namely, Education, Health & Sanitation, Infrastructure, Vocational Training, Agriculture and Other activities.

### **13.1 Education:**

The works in this head shall include:

1. Distribution of school aids to children's identified through National Child Labour Project (NCLP).
2. Distribution of desk benches to schools runs by Govt.
3. Providing library books to schools.
4. Providing solar lantern to Government school students.

### **13.2 Health & Sanitation:**

The works in this head shall include:

1. Conducting health camps in nearby villages and providing required medical aids such as Spectacles, Artificial limb, Tri-cycle etc.
2. Conducting awareness camps on the health of mother and child.
3. Providing financial assistance for construction of individual sanitation facility.
4. Slam area development.
5. Cleaning activities under such Bharath mission.
6. Up keeping and maintenance of existing RO water plant and construction of new RO plant for villagers.
7. Providing hand pumps and bore wells in nearby villages.

**13.3 Infrastructure:**

The works in this head shall include:

1. Construction of approach road and CC roads in villages.
2. Assistance for construction of infrastructure in schools runs by Government.
3. Construction of community halls.
4. Establishment of library in villages.
5. Yoga centres in villages.

**13.4 Vocational training:**

The works in this head shall include:

1. Providing training and necessary tools to enable the land losers to work as tailor, Electrician etc.
2. To start courses such as Beautician, Motor driving, Cloth/Julie, Bags making, Spoken English.
3. Training for joining Army/Police/Para military.

**13.5 Agriculture:**

The works in this head shall include:

1. Sensitize local farmers about better method of agriculture through interaction with experts/scientists.
2. Conducting Live Stock Health Camp in nearby villages.

**13.6 Other activities:**

The works in this head shall include:

1. Conducting Sports events in the villages to uplift the spirit of the youngsters in the villagers.
2. Assisting in celebrating state festivals such as sammakka sarakka jatara, Batkamma etc.
3. Any other activities allowable under the CSR policy of SCCL.

**13.7 Projection of CSR expenditure during FY 2019-24:**

SCCL at company level will spent 2% of the net profit for CSR activities. STPP at plant level is committed to make a CSR expenditure of 4.4 Crore per annum.

The estimated expenditure of CSR for FY 2018-19 is 11.37 Crore among which 8.75 crore is already utilised upto 31.01.2019. In view of these facts and figures the CSR expenditure for 2019-24 is estimated around 6 Crores per annum.

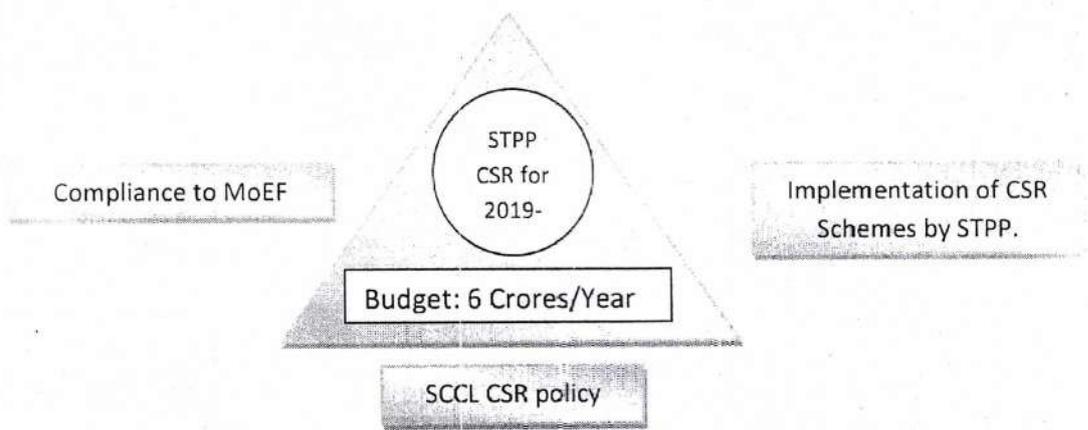
8.75 crore is already utilised upto 31.01.2019. In view of these facts and figures the CSR expenditure for 2019-24 is estimated around 6 Crores per annum.

CSR committee at board level is constituted under section 135 of the companies Act 2013 read with companies CSR rules 2014 consists of following board members.

- 1. Chairman and Managing Director – Chairman
- 2. Director (Finance) – Member
- 3. Director (Operations) – Member
- 4. Director (P, A&W) - Member

The aforementioned committee supervises the CSR activity in different spheres of SCCL including STPP & expected to monitor CSR activity at STPP during the tariff period 2019-24.

**13.8 Development of STPP CSR programme for 2019-24**



**14. Projected financials:**

It is to state that SCCL prepares financial statement on yearly basis at company level for the entire SCCL as a whole which includes Balance sheet, income statement and cash flow statement. Further, Complete financials at STPP level are not prepared as the financials of STPP is taken into the consolidated financials of SCCL.

The financial projections of STPP given here is made only to comply regulation 7 of generation tariff regulation 2019 and may only be used as future guidance/projection to the financials of the 2 x600 MW STPP.

The projected financials of STPP in the next control period includes balance sheet, profit and loss account and cash flow statement for FY 2019-24. The income sides are projected based on tariff in MYT submission during 2019-24 which is computed based on the capital investment Plan (CIP).

The estimated financials are likely to change based on the actual admittance of capital during 2019-24. The price escalation in coal, oil and O&M are estimated based on past values and are subjected to change on actual.

On expenditure side, the costs were projected based on trend of absolute values and relative values of these (compared to revenue) in the previous period. However, as the plant was in operation only for three years, such short trend of expenditure has an inherent risk to deviate on long term from its predicted value.

Further, profit before tax is computed by subtracting actual depreciation and interest on loan from EBIT (Earnings Before Interest and Tax). Since the actual leverage is lower than the normative, the profit shown is upward biased as the cost of using additional (more than normative 30%) equity cannot be charged to profit and loss account. In other words, the profit shown includes cost of actual equity in excess of normative 30% capital.

The detail financials are given below:

#### **14.1 Provisional Statement of Profit and Loss for 5 years**

The assumption for preparation of Profit and loss account is given below:

- 3% has been considered as estimation error in Sales.
- Stores & spares projections taken with escalation of 5% every year
- Employee Benefit expenses taken with 5% escalation and Non - Executives pay revision given effect with 20% increase in 21-22. Assumed that Ratio of Wages is 75% for Executives and 25% for Non-Executives employees.
- Power & Fuel projected with 5% escalation
- Repairs and Maintenance was taken based on future requirements
- O&M Outsourced expenditure is escalated at 20% in FY2021-22 and for all other year at 10% Escalation
- Insurance expenditure expected to increase 10% every year

- Depreciation is calculated at rates specified in Appendix-II of CERC Regulations, 2014
- Rate of Interest for PFC Loan 1 is considered at 9.25% after giving rebate effect
- Rate of Interest for PFC Loan 2 is considered by taking Weighted Average Interest Rate as on 31.01.2019
- Rate of Interest for New Loan of FGD is estimated at 9.5%
- It is assumed that the New loan for FGD will be repaid in 48 instalments.

(In Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>I Revenue from Operations</b>	<b>3,812.71</b>	<b>3,960.78</b>	<b>4,204.50</b>	<b>4,415.55</b>	<b>4,573.43</b>
Sale of Power	3,812.71	3,960.78	4,204.50	4,415.55	4,573.43
Other Income	1.00	1.00	1.00	1.00	1.00
<b>IV EXPENSES</b>	<b>3,265.90</b>	<b>3,417.12</b>	<b>3,600.47</b>	<b>3,826.70</b>	<b>4,001.02</b>
Cost of materials consumed	55.20	58.62	62.28	66.19	70.38
1.Stores & Spares	42.00	44.10	46.31	48.62	51.05
2.Petrol, Oil & Lubricants (POL)	13.20	14.52	15.97	17.57	19.33
3. Coal Consumption	2,127.26	2,285.17	2,444.95	2,616.09	2,806.66
4. Lime Stone Consumption	-	-	2.00	2.00	2.00
Employee benefits expense	36.75	38.59	41.98	44.07	46.28
Finance costs ( Interest net of B/c)	389.44	352.38	313.68	310.60	262.61
Depreciation and Amortization expense	446.06	455.25	480.71	502.30	502.30
Power & Fuel	17.53	18.41	19.33	20.29	21.31
Repairs& Maintenance	15.46	15.18	14.32	24.49	27.55
Contractual Expense	129.01	141.31	165.80	181.78	199.36
1. Transportation charges	-	-	-	-	-
2. Hiring of HEMM, Weigh Bridges & others	15.00	16.50	18.15	19.97	21.96
3. STPP - O&M(Outsourced)	99.59	109.55	131.46	144.61	159.07
4. Administrative Expenses	8.42	9.26	10.19	11.20	12.32
5. CSR Expenditure	6.00	6.00	6.00	6.00	6.00

Provisions	-	-	-	-	-
Other Expenses	49.19	52.21	55.44	58.89	62.58
1. Insurance	11.19	12.31	13.54	14.90	16.39
2. CISF	18.00	18.90	19.85	20.84	21.88
3. Overhauling Cost	20.00	21.00	22.05	23.15	24.31
Profit Before Tax	547.81	544.66	605.03	589.85	573.41
Less: Taxes					
MAT	118.05	117.37	130.38	127.11	123.57
Profit After Tax	429.76	427.28	474.65	462.74	449.84

#### 14.2 Provisional Balance Sheet of STPP for 5 years

The assumption for preparation of Balance Sheet is given below:

- The Total capital expenditure Rs. 8780 Crs as per RCE-2 is considered in the calculations
- The SCCL is providing funds for working capital and equity portion of Capital Investments. The Collection of Trade Receivables also is being received by SCCL. Thus, the amount received from SCCL in excess of 30% equity is shown as Notional Loan from SCCL
- Closing Stock of Stores, Spares are valued weighted average method
- Closing Stock of Coal is valued at Weighted average acquisition cost
- Trade Payables other than Capital Liabilities taken on 2 months Purchases due
- Provisions (NC) for Employee Benefits is escalated at 5% p.a
- Current Tax Liabilities (Net): Tax is considered at MAT @21.55%
- Other Current Liabilities: Statutory Dues Relates to Employee recoveries and other LFOF is escalated at 5% p.a
- Provisions(C) for Employee Benefits is escalated at 5% p.a
- The Trade Receivables are estimated to be realized for Rs. 3,500 crs in FY2019-20, Rs. 3,700 crs in FY2020-21, Rs. 3,900 crs in FY2021-22, Rs. 4,100 crs in FY2022-23 and Rs. 4,300 crs in FY2023-24.
- Other financial liabilities(C): The Security Deposit and Retention recovery on New CIP is assumed to be recovered at 10%. Further it is assumed that the same will be released after 24 months.

(In Crore)

Particulars	19-20	20-21	21-22	22-23	23-24
<b>1.ASSETS</b>	<b>10,532.12</b>	<b>10,794.78</b>	<b>11,019.47</b>	<b>10,841.84</b>	<b>10,623.37</b>
1. Non-Current Assets	7,688.43	7,702.20	7,603.19	7,089.62	6,576.04
(a) Property, Plant & Equipment	7,577.46	7,268.57	7,599.78	7,086.21	6,572.63
(b) Capital Work-in-Progress	107.55	430.22	-	-	-
(c) Financial Assets (NC)	3.41	3.41	3.41	3.41	3.41
Loans (NC)	3.41	3.41	3.41	3.41	3.41
Other Assets (NC)	-	-	-	-	-
2. Current Assets	2,843.69	3,092.58	3,416.28	3,752.22	4,047.32
(a) Inventories	185.05	202.05	220.25	239.56	260.02
1. Stores, Spares & Loose Tools	58.00	65.40	75.22	84.48	94.21
2. Coal	122.05	130.40	139.52	149.28	159.74
3. Stores in Transit	5.00	5.25	5.51	5.79	6.08
(b) Financial Assets	2,649.63	2,880.62	3,185.12	3,500.68	3,774.11
Trade Receivables (C)	2,619.75	2,880.53	3,185.04	3,500.58	3,774.02
Loans (C)	0.08	0.08	0.08	0.09	0.09
Others (to be specified)	29.80	0.00	0.00	0.00	0.00
Other Current Assets	9.01	9.91	10.90	11.99	13.19
<b>2.EQUITY &amp; LIABILITIES</b>	<b>10,532.12</b>	<b>10,794.78</b>	<b>11,019.47</b>	<b>10,841.84</b>	<b>10,623.37</b>
<b>1. Equity</b>					
Equity Contribution from SCCL	3,915.86	4,112.22	4,309.03	4,309.03	4,309.03
Reserve & Surplus	1,387.36	1,814.65	2,289.30	2,752.03	3,201.87
Loan from SCCL	679.78	494.57	311.91	198.57	89.84
<b>2. Liabilities</b>	<b>4,549.13</b>	<b>4,373.34</b>	<b>4,109.23</b>	<b>3,582.21</b>	<b>3,022.62</b>
<b>1. Financial Liabilities</b>	<b>3,642.83</b>	<b>3,458.48</b>	<b>3,136.18</b>	<b>2,617.72</b>	<b>2,099.26</b>
Borrowings (NC)	3,642.83	3,458.48	3,136.18	2,617.72	2,099.26
2. Provisions (NC)	4.70	4.93	5.18	5.44	5.71
3. Other Non-Current Liabilities	171.38	160.11	148.84	137.57	126.29
4. Trade payable (C)	21.01	24.29	9.19	9.65	10.13
<b>5. Other financial liabilities:</b>					
Current Maturities of Long-Term Loan	463.71	468.27	518.46	518.46	518.46
Interest Accrued on Long term loan	76.35	68.70	60.72	59.68	49.83
Other financial liabilities (Current)	41.05	60.64	89.21	94.96	77.18
6. Other Current Liabilities	3.16	3.32	3.49	3.66	3.84
7. Provisions (C)	6.87	7.21	7.57	7.95	8.35

8. Current Tax Liabilities (Net)	118.05	117.37	130.38	127.11	123.57
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**14.3 Cash Flow Statement for 5 years - STPP**

The year wise cash flow statement is given below

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>					
Profit/(Loss) before Tax	547.81	544.66	605.03	589.85	573.41
Adjustments for					
Depreciation/Amortization/Impairment of PPE	457.33	466.52	491.98	513.57	513.57
Interest Expense	389.44	352.38	313.68	310.60	262.61
Grants Deferred Income	0.00	0.00	0.00	0.00	0.00
	<b>846.77</b>	<b>818.91</b>	<b>805.66</b>	<b>824.17</b>	<b>776.19</b>
Operating profit before working capital changes	<b>1394.58</b>	<b>1363.57</b>	<b>1410.69</b>	<b>1414.02</b>	<b>1349.60</b>
<b>Adjustments towards changes in Working Capital Changes</b>					
(Increase)/Decrease Inventories	-43.53	-17.00	-18.20	-19.30	-20.46
(Increase)/Decrease Trade Receivables	-312.71	-260.78	-304.50	-315.55	-273.43
(Increase)/Decrease Other Current / Non Current Financial & Non Financial Assets	49.18	28.90	-0.99	-1.09	-1.20
Increase/(Decrease) Trade Payables	-6.03	3.28	-15.11	0.46	0.48
Increase/(Decrease) Other Current / Non Current Financial & Non Financial Liabilities	13.72	0.72	23.10	-9.02	-41.60
Tax paid Including TDS	-118.05	-117.37	-130.38	-127.11	-123.57
<b>Net Cash flow from Operating Activities (A)</b>	<b>977.16</b>	<b>1001.31</b>	<b>964.60</b>	<b>942.40</b>	<b>889.81</b>
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>					
Inc / Dec in PPE, Intangible assets (including Capital WIP)	-322.31	-480.29	-392.97	0.00	0.00
<b>Cash Flow from Investing Activities(B)</b>	<b>-322.31</b>	<b>-480.29</b>	<b>-392.97</b>	<b>0.00</b>	<b>0.00</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>					
Investment of Equity contribution	10.58	11.15	14.15	-113.34	-108.73
Long -term borrowings	182.46	283.93	196.16	0.00	0.00
Repayment of Loan	-458.43	-463.71	-468.27	-518.46	-518.46
Interest Expense	-389.44	-352.38	-313.68	-310.60	-262.61
<b>Cash Flow from Financing Activities(C)</b>	<b>-654.84</b>	<b>-521.02</b>	<b>-571.63</b>	<b>-942.40</b>	<b>-889.81</b>
<b>Net Increase in Cash (A+B+C)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Cash & Cash Equivalents at the Beginning of the year	0.00	0.00	0.00	0.00	0.00
Cash & Cash Equivalents at the End of the year (D+E)	0.00	0.00	0.00	0.00	0.00
Cash and Cash Equivalents for the purpose of the Cash-Flow Statement	0.00	0.00	0.00	0.00	0.00

Further, it is also stated that the above financials especially cash flow statement assumes regular payment shall be made by the beneficiary which is not currently the situation of payment from TSDisoms. The Discoms also have not opened letter of credit as per the standard of the industry.

### 15 The billing and collection efficiency

The financial year wise billing and current status of bill payment by TS discoms are given below:

#### 2016-17

(In Crore)

Billed	Bill crossed** 60 Days from date of billing	Payment made by TS Discoms	Collection efficiency (%)
(A)	(B)	(C)	(D = C/B)
1258.00	1258.00	352.88	28.05

#### 2017-18

(In Crore)

Billed	Bill crossed** 60 Days from date of billing	Payment made by TS Discoms	Collection efficiency (%)
(A)	(B)	(C)	(D = C/B)
3596.50	3596.50	2738.43	76.14

#### 2018-19 (upto Feb)

(In Crore)

Billed	Bill crossed**60 Days from date of billing	Payment made by TS Discoms	Collection efficiency (%)
(A)	(B)	(C)	(D = C/B)
3084.40	2464.99	1831.95	74.32

#### Total upto Feb 2019

(In Crore)

Billed upto Feb 2019	Bill crossed** 60 Days from date of billing	Payment made by TS Discoms	Collection efficiency (%)

(A)	(B)	(C)	(D = C/B)
7938.90	7319.48	4923.26	67.26

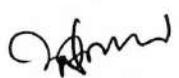
\*\* As on 09.03.2019.

The same trend of payment may affect the projected financials adversely.

**16 Prayer before Hon'ble commission**

SCCL prays to the Hon'ble Commission that it may be pleased to:

- a. Consider the Business Plan of STPP during 2019-24 for approval as per regulation 7 and 27 of terms and condition of generation tariff regulation 2019.
- b. Condone any inadvertent omissions/ errors/ shortcomings and permit SCCL to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date;

  
Petitioner

# SUPPORTING APPENDIXES TO BUSINESS PLAN

## Index

<b>Item</b>	<b>Page No (Cont)</b>
<b>Appendix A:</b> The recommendations by Central Electricity Authority (CEA) on plant operating norms for the tariff period 2019-24 given to Central Electricity Regulatory Commission vide its letter dated 10.12.2018.	49-60
<b>Appendix B:</b> The relevant letter of recommendation forwarded to CMD, Coal India Limited & CMD, Singareni Collieries Company Limited for approval of bridge linkages.	61-74
<b>Appendix C:</b> CSR policy of SCCL.	75-79



भारत सरकार / Government of India  
 विद्युत मंत्रालय / Ministry of Power  
 केंद्रीय विद्युत प्राधिकरण / Central Electricity Authority  
 तापीय यांत्रिकी एवं अभियांत्रिकी विकास प्रभाग  
 Thermal Engineering & Technology Development Division

संख्या: CEA/TETD-TT/2018/N-15/1451

दिनांक : 10.12.2018

सेवा में

✓ सचिव,  
 केंद्रीय विद्युत विनियामक आयोग,  
 तीसरी और चौथी मंजिल,  
 चंद्रलोक बिल्डिंग, 36, जनपथ,  
 नई दिल्ली - 110 001

**विषय: CERC Terms and Conditions of Tariff for the tariff period starting from 01.04.2019  
 - CEA Recommendations on Operation Norms for thermal generating stations - के बारे में.**

महोदय,

This is with reference to your D.O. letter No. No. 1-1/225/2017- CERC dated 26.03.2018 addressed to Chairperson, CEA requesting for CEA recommendations on the operation norms for hydro and thermal generating stations for the tariff period 2019-24 starting from 01.04.2019. The additional operational norms have also been requested for units/ stations on account of implementation of new environmental norms.

The issue of operation norm for tariff period 2019- 24 has been examined and the Recommendation on Operation Norms for Thermal Generating Stations for the Tariff Period 2019- 24 as approved by Chairperson, CEA is enclosed herewith. The additional operation norm as pertaining to implementation of new environmental norms shall be furnished later.

संलग्नक: यथोपरी.

भवदीय,

*(Handwritten Signature)*  
 (सुनीत कुमार गुप्ता)  
 उप - निदेशक

- Copy for kind information to:
- i) अध्यक्ष, के.वि.प्रा.
  - ii) सदस्य (तापीय), के.वि.प्रा.
  - iii) मुख्य अभियंता (टी.ई.टी.डी.)

*Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24*

**Recommendations on Operation Norms for Thermal Generating Stations  
for the Tariff Period 2019- 24**

*Reference: Regulation 36 under Chapter 8 in CERC (Terms and Conditions of Tariff)  
Regulations, 2014:*

The recommendations of Central Electricity Authority on plant operation norms in  
respect of thermal generating stations for the tariff period 2019- 2024 are as below:

**A. Normative Annual Plant Availability Factor (PAF)**

- i) a) All coal/ lignite based thermal generating stations, except those covered under clause ii), iii) & iv) below:
  - Pithead stations : 83%
  - Non-pithead stations: 75% (to be reviewed after 2 years)
  - First FY after COD : 68.5%
- i) b) All gas/ liquid fuel based thermal generating stations, except those covered under clause v) below : 85%
- ii) M/s NLCIL's following pulverised lignite fired thermal generating stations:
  - a) TPS- I : 72%
  - b) TPS- II Stage- I & Stage- II : 80%
- iii) M/s DVC's following coal fired thermal generating stations:
  - a) Bokaro TPS (210 MW Unit- 3) : 75%
  - b) Chandrapura TPS (630 MW) : 75%
  - c) Durgapur TPS (210 MW) : 75%
- iv) Lignite fired generating stations using circulatory fluidized bed combustion (CFBC) technology and generating stations based on coal rejects:
  - a) First Three years from COD : 68.5%
  - b) For next year after completion of three years of COD : 75%
- v) M/s NEEPCO's gas fired thermal generating stations:
  - a) Assam GBP : 72%

Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24

**B. Normative secondary fuel oil consumption**

- i) Coal-based generating stations other than Farakka, Stage- II TPS and those at (ii) & (iii) below: 0.50 ml/kWh

Farakka, Stage- II TPS : 1.0 ml/kWh

In Farakka, Stage- II TPS there is front fired boiler which requires oil support during every mill changeover. The actual oil consumption is more than around 1.07 ml/kWh during last 5 years.

Further, considering fast pace of renewable energy based capacity addition in the country, it is suggested that norm of specific oil consumption may be suitably reviewed in near future as for its adequacy based on actual consumption under increased flexible operation of the coal and lignite based thermal generating stations.

- ii) Coal-based generating stations of DVC:

- a) Bokaro TPS 210 MW Unit- 3 : 1.5 ml/kWh
- b) Chandrapura TPS (630 MW) : 0.7 ml/kWh
- b) Durgapur TPS (210 MW) : 2.4 ml/kWh
- c) Meija TPS 210 MW Unit- 1 to 4 : 1.0 ml/kWh

- iii) Lignite-fired generating stations:

- a) Pulverised lignite-fired generating stations except TPS- I : 1.0 ml/kWh
- b) TPS-I : 1.5 ml/kWh
- c) Lignite-fired generating stations based on CFBC technology : 1.0 ml/kWh

- iv) Generating stations based on coal rejects : 2.0 ml/kWh

**C. Gross station heat rate**

- 1. Existing Thermal Generating Stations (COD achieved before 1.4.2009):

- i) The normative gross station heat rate for coal based thermal generating units/ stations other than those relaxed norms covered under clause (ii) and (iii) below shall be as under:

200/210/250 MW sets	500 MW sets (sub-critical)
2450 kcal/kWh(no change)	2400 kcal/kWh (increased by 25 kcal/kWh)

Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24

Note:

In respect of 500 MW and above units where the boiler feed pumps are electrically operated, the gross station heat rate shall be 40 kcal/kWh lower than the gross station heat rate specified above.

ii) NTPC's coal based thermal generating stations:

Talcher TPS (4x60MW+ 2x110MW)	2830 kcal/kWh
Tanda TPS (4x110MW)	2775 kcal/kWh

ii) DVC's coal based thermal generating stations:

Bokaro TPS 210 MW Unit- 3	2700 kcal/kWh
Chandrapura TPS 130 MW Unit 3	3000 kcal/kWh
Durgapur TPS (210 MW Unit- 4)	2750 kcal/kWh

iii) Lignite fired thermal generating stations:

The relaxed heat rate norms in respect of NLCIL's TPS- I, TPS- I Expansion, TPS- II Stage- I & Stage- II lignite based thermal generating stations shall be as below:

TPS-I (6x50MW+ 3x100MW)	4000 kcal/kWh
TPS-I (Expansion) (2x210MW)	2720 kcal/kWh
TPS-II Stage I (3x210MW) and TPS-II Stage I (4x210MW)	2890 kcal/kWh

v) Open cycle gas turbine/ combine cycle thermal generating stations:

The operation norm for existing open cycle gas turbine/ combine cycle thermal generating stations of NTPC and NEEPCO is proposed to be retained.

2. Existing Thermal Generating Stations (coal & lignite) having COD achieved on or after 1.4.2009 till 31.03.2014:

The normative gross station heat rate of coal-based and lignite-fired thermal generating stations

= 1.05 X Design Heat Rate (kcal/kWh)

Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.

The design heat rate to be considered for coal based stations shall not exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units:

Pressure Rating (kg/cm <sup>2</sup> )	150	170	170	247	247
SHT / RHT (° C)	535/ 535	537/ 537	537/ 565	537/ 565	565/ 593
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven	Turbine Driven	Turbine Driven
Maximum Design Unit Heat Rate (kcal/ kWh)					
Sub-Bituminous Indian Coal	2300	2294	2276	2235	2176
Bituminous Imported Coal	2197	2191	2174	2135	2097

Further, the applicability of the condition, "Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14." mentioned at end of the regulation may be deleted.

- Existing thermal generating stations (coal & lignite) having COD achieved on or after 1.4.2014 till 31.3.2019 and new thermal generating stations (coal & lignite) achieving COD on or after 1.4.2019

The normative gross station heat rate of coal-based and lignite-fired thermal generating stations

= 1.05 X Design Heat Rate (kcal/kWh)

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.

*Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24*

The design heat rate to be considered for coal based stations shall not exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units:

Pressure Rating (kg/cm <sup>2</sup> )	170	247	247	270	270
SHT / RHT (° C)	537/ 565	537/ 565	565/ 593	593/ 593	600/ 600
Type of BFP	Turbine Driven				
<b>Maximum Design Unit Heat Rate (kcal/kWh)</b>					
Sub-Bituminous Indian Coal	2250	2235	2176	2093	2081
Bituminous Imported Coal	2174	2135	2078	2022	2011

- i) Further, the applicability of the condition that the heat rate norms computed as per above shall be limited to the heat rate norms approved during last tariff period mentioned at end of the regulation may be deleted.
  - ii) The impact of dry cooling system on design heat rate shall be mentioned as below:  
 "Provided also that maximum turbine cycle heat rate and maximum design unit heat rate shall be increased by 6% each for units based on dry cooling system."
  - iii) The impact of change of BFP drive from steam turbine driven to electric motor driven on unit heat rate shall be mentioned as below:  
 "In respect of generating units where the boiler feed pumps are electrically operated, the maximum design unit heat rate shall be 40 kcal/kWh (60 kcal/kWh for supercritical units) lower than the maximum design unit heat rate specified above with turbine driven BFP."
4. Gas-based/ Liquid-based thermal generating unit(s)/ block(s) having COD on or after 01.04.2009:

Recommendations to CERC on Operation Norms for Thermal Power Stations for Tariff Period 2019- 24

The existing operation norms as at CERC Regulation 36(C)(d) are proposed to be retained.

Further, the applicability of the condition, "Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14." mentioned at end of the regulation may be deleted.

D. Auxiliary energy consumption

1. Coal Based Thermal Generating Stations:

i) Coal-based thermal generating stations except at (ii) & (iii) below:

	(auxiliary energy consumption as % of gross generation)	
	Without IDCT	With IDCT
200 to 270 MW unit generating stations	8.5%	9.0%
300 to 800 MW unit generating stations (With steam turbine driven boiler feed pumps )	5.75%	6.25%
300 to 800 MW Sub- critical units (With electric motor driven boiler feed pumps)	8.0%	8.5%
300 to 800 MW Super-critical units (With electric motor driven boiler feed pumps)	9.0%	9.5%

In case of thermal generating stations provided with tube and ball mills, the additional auxiliary energy consumption allowed shall be 0.7%.

In case of thermal generating stations provided with Dry Cooling Systems, the additional auxiliary energy consumption allowed shall be as below:

Type of dry cooling system	(% of gross generation)
Direct cooling air cooled condensers with mechanical draft fans	1.0%
Indirect cooling system employing jet condensers with pressure recovery turbine and natural draft tower	0.5%

ii) NTPC's coal based thermal generating stations:

Recommendations to CERC on Operation Norms for Thermal Power Stations for Tariff Period 2019- 24

Talcher Thermal Power Station (460 MW)	10.50%
Tanda Thermal Power Station (440 MW)	11.70%

iii) DVC's coal based thermal generating stations:

Bokaro Thermal Power Station 210 MW Unit- 3	10.25%
Chandrapur Thermal Power Station (630 MW)	9.50%
Durgapur Thermal Power Station (210 MW Unit- 4)	10.50%

2. Lignite Based Thermal Generating Stations:

i) For all pulverised lignite fired thermal generating stations with 200 MW sets and above, the auxiliary energy consumption norms shall be 0.5 percentage point more than the auxiliary energy consumption norms of coal-based generating stations except at (ii) below.

ii) M/s NLCIL's pulverised lignite fired generating stations:

TPS-I (600 MW)	12.0 %
TPS-II stage- I (630 MW)	9.85 %
TPS- II stage- II (840 MW)	9.85%

iii) For lignite fired thermal generating stations using CFBC technology, the auxiliary energy consumption norms shall be 1.5 percentage point more than the auxiliary energy consumption norms of coal-based generating stations except at (iv) below.

iv) M/s NLCIL's CFBC technology based lignite fired generating stations:

Barsingsar TPS (250 MW)	12.5 %
TPS-II Expansion (500 MW)	12.5 %

3. Gas Turbine/ Combined Cycle Generating Stations:

i) Gas turbine/ combined cycle generating stations, except those at (ii) below:

- a) Combined cycle generating stations : 2.5%
- b) Open cycle generating stations : 1.0%

- ii) a) NEEPCO's Tripura CCPP (101 MW) : 4.2%
- b) NTPC's Kayamkulam CCPP (359.58 MW) : 2.7%

*Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24*

c) ONGC- TPCL's Palatana CCPP (726.6 MW) : 3.5%

**E. Annual Plant Load Factor (PLF) for Incentive**

The level of Annual Plant Load Factor (PLF) for Incentive is recommended at the same level of Normative Annual Plant Availability Factor (NAPAF) for the station for the year.

**F. Impact of Part Load Operation on Performance of Thermal Generating Stations:**

**1. Coal/ lignite based thermal generating stations:**

i) Impact on station heat rate:

The currently applicable factors for unit heat rate degradation at part loading for sub- critical and super- critical units as notified by CERC vide its notification dated 6.4.2016 are proposed to be modified as below:

Sl. No.	Unit loading (%)	Unit HR degradation (%)	
		Sub- critical units	Super- critical units
1.	90 – 100	0	0
2.	80 - 89.99	1.3	0.9
3.	70 - 79.99	2.8	2.1
4.	60 - 69.99	4.8	3.7
5.	50 - 59.99	7.2	5.7
6.	40 - 49.99	10.0	8.0

ii) Impact on auxiliary energy consumption:

The currently admissible additional auxiliary energy consumption values at part loading of coal/ lignite based thermal generating station as notified by CERC vide notification dated 6.4.2016 are proposed to be appropriately modified as below:

Sl. No.	Module/ plant loading as % of installed capacity	Admissible % degradation in auxiliary energy consumption (% point)
1.	90 to 100	Nil

Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24

2.	80 to 89.99	0.25
3.	70 to 79.99	0.50
4.	60 to 69.99	0.80
5.	50 to 59.99	1.20
6.	40 to 49.99	1.80

**2. Gas/ liquid fuel based thermal generating stations:**

i) Impact on station heat rate:

The degradation of module/ plant heat rate for gas/ liquid fuel based thermal generating stations in CCGT mode of operation are proposed to be considered as below:

Sl. No.	Module/ plant loading as % of installed capacity	Increase in module/ plant heat rate (%)
1.	90 to 100	Nil
2.	80 to 89.99	2.5
3.	70 to 79.99	5
4.	60 to 69.99	8
5.	50 to 59.99	12

ii) Impact on auxiliary energy consumption:

The additional auxiliary energy consumption admissible at part loading of gas/ liquid fuel based thermal generating station is proposed to be considered as below:

Sl. No.	Plant/ module loading as % of installed capacity	Admissible % additional auxiliary energy consumption (% point)
1.	90 to 100	Nil
2.	80 to 89.99	0.25
3.	70 to 79.99	0.50
4.	60 to 69.99	0.80
5.	50 to 59.99	1.20

*Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24*

**G. Transit losses and GCV loss of coal on storage and handling etc.:**

The recommendations of the committee constituted by MoP on 26.2.2018 on the issue of ACQ of thermal power stations including for transit loss and GCV loss of coal on storage & handling etc. is given below:

**a. Losses in Washing of Coal**

For all power plants using washed coal with 34% ash content, additional RoM coal requirement of 7% for ash content up to 40%  $\pm 0.5\%$  and additional RoM coal requirement of 10% for ash content beyond 40% may be considered. Further, additional RoM coal of 1% should also be given as a compensation of 1% loss of washed coal on account of addition of 1% TM (ARB) in washed coal during wet washing process.

**b. Transit Loss**

CERC Tariff Regulation for FY 14-19 allows transit loss of 0.8% for non-pit head plants and 0.2% for pit head plants. However, as per inputs provided by NTPC & RRVUNL, they have experienced an average transit loss of  $\sim 1.2\%$  and  $\sim 1.5\%$  respectively.

For the time being, the Committee feels that Transit Loss as specified by CERC in its present Tariff Regulations should be included in the consumption norms so that power plants can get compensated in terms of quantity that is lost in transit. In case above norms get modified by CERC in future tariff regulations, the prevailing norms in that regulation will be considered.

**c. Loss of Energy in Storage**

CEA has already recommended following recommendations to MoP and CERC related to the issue of loss of energy in storage:

- i. CEA is of the view that while taking coal sample from wagon top, GCV measurement will not be representative for the whole lot due to impact of moisture change. GCV measurement of wagon top coal will give comparatively higher GCV value due to settling of moisture at the bottom of the wagon and loss of moisture from wagon top during transportation of coal. On this account, for calculating energy charge, a GCV compensation of around 70-80 kcal/kg may be allowed to the generator.
- ii. CEA is of the view that there is a loss of GCV in the coal stock where coal is stored inside the power plant. On this account, for calculating energy charge, a GCV compensation of around 35 kcal/kg (on an average 1% loss for a coal of 3500 kcal/kg GCV) may be allowed to the generator for a storage of 30 days in a non-pit head station and 15 kcal/kg for pit head station.
- iii. CEA is of the view that there is minor unavoidable loss of GCV in the coal during handling inside the power plant and for that purpose, a GCV compensation of around 2-3 kcal/kg may be allowed to the generator.

*Recommendations to CERC on Operation Norms for Thermal Power Stations for  
Tariff Period 2019- 24*

Further, in its inputs to MoP & CERC, CEA has suggested that above mentioned margins would vary from plant to plant, season to season and to varying coal characteristics and accordingly a margin of 85-100 kCal/kg for pit head stations and a margin of 105-120 kCal/kg for non-pit head stations may be allowed to the generators as a loss of GCV measured at Wagon top at unloading point till the point of firing in the boiler.

The committee feels that the above recommended losses in coal storage along with loss due to GCV measurement error because of wagon top sampling at plant receiving end are part of energy that needs to be supplied to the generating stations to meet the target generation and hence a quantity compensation for these losses should be provided to the stations. This quantity may be revised further as appropriate post release of revised norms by CERC.

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31

Appendix-B

IMMEDIATE

File No.23014/2/2018-CLD  
Government of India  
Ministry of Coal  
<<>>

Shastri Bhawan, New Delhi,  
Dated the 15<sup>th</sup> May, 2018

To

1. The Chairman-cum-Managing Director,  
Coal India Limited, Coal Bhawan,  
Premise No-04 MAR, Plot No-AF-III, Action Area-1A,  
Newtown, Rajarhat, Kolkata-700155

2. The Chairman-cum-Managing Director,  
Singareni Collieries Company Limited,  
18, Red Hills, Khairatabad PO, Hyderabad,  
Telangana.

**Subject: Meeting of the Standing Linkage Committee (Long-Term) for  
Power Sector- SLC/LT No. 2/2018.**

Sir,

I am directed to forward herewith the approved minutes of the meeting of the SLC (LT) for Power Sector held on 10.04.2018 to consider the requests for linkages to State Sector Power Plants and review status of existing coal linkages/LoAs and other related matters.

Encls.- as above.

Yours faithfully,

*Sujeet Kumar*  
(Sujeet Kumar)

Under Secretary to the Govt. of India

15/5/18

Copy to -

1.	Additional Secretary, Ministry of Coal	Chairperson
2.	Principal Advisor (Energy), NITI Aayog, Yojana Bhawan New Delhi.	Member
3.	Joint Secretary (Coal), Ministry of Coal	Member
4.	Advisor (Projects), Ministry of Coal	Member
5.	Joint Secretary (Thermal), Ministry of Power, Shram Shakti Bhawan, New Delhi	Member
6.	Joint Secretary (Ports), Ministry of Shipping, Transport Bhawan, New Delhi	Member
7.	Joint Secretary, Ministry of Steel, Udyog Bhawan, New Delhi	Member
8.	Joint Secretary, Department of Industrial Policy & Promotion, Udyog Bhawan, New Delhi	Member

1/4

9.	Executive Director, T. T. (F), Railway Board, Room No. 261, Rail Bhawan, New Delhi.	Member
10.	Director (Marketing), Coal India Limited.	Member
11.	CMD's BCCL, CCL, ECL, MCL, NCL, SECL & WCL	Members
12.	Chairman-cum-Managing Director, Central Mine Planning & Design Instt Ltd, Gondwana Place, Kanke Road, Ranchi.	Member
13.	Chairman, Central Electricity Authority, Sewa Bhawan, RK Puram, New Delhi	Member
14.	Chairman, NTPC, Scope Complex, Lodhi Road, New Delhi-110003	Member
15.	Joint Secretary (CBA-II Section), Ministry of Coal	Special Invitee

Copy to:

- (i) Director (Technical), CIL
- (ii) GM (S&M), CIL, Kolkata
- (iii) CGM (CP), CIL, Kolkata
- (iv) GM (S&M), CIL, Delhi.

Copy also to -

- 1. PS to Minister of Coal
- 2. OSD to Minister for Coal
- 3. PSO to Secretary (Coal)
- 4. PPS to Additional Secretary (Coal)
- 5. PPS to Joint Secretary (LA)

Copy also to - NIC, Ministry of Coal with the request to upload it in the website of Ministry of Coal for information of all concerned.

*Sujeet Kumar*  
15/3/19

S.No.	Issue	Summary of discussion	Recommendations with reasons
Agenda Item No. 1.	Confirmation of the Minutes of the SLC(LT) meeting held on 19.01.2018.	There were no comments from any side.	Minutes of the SLC(LT) meeting held on 19.01.2018 are confirmed.
Agenda Item No. 2  Ministry of Power - Request for grant of linkages to Power Plants of NTPC under 'SHAKTI' Policy.	<p>Ministry of Power vide its OM no. FU-2/2017-IPC (Vol.III) dated 26.03.2018 has requested Ministry of Coal to grant long term coal linkage under clause B(i) of SHAKTI Policy to the following Power Plants of NTPC:</p> <p>i. Super Critical Power Project, Singrauli, STPP-III (2x660 MW), NTPC at Uttar Pradesh - MoP has stated that NTPC has tied up inputs i.e. land, water (partially) &amp; PPA (partially) for Singrauli STPP-III. They are in the process of tying up balance quantity of water requirement and supplementary PPA for increased capacity. NTPC has mentioned that as and when old units of Singrauli are retired then NTPC will have to surrender the linkage allocated to the retiring units.</p> <p>ii. Super Critical Power Project, Katwa, (2x660 MW), NTPC at West Bengal - Ministry of Power has stated that NTPC has tied up inputs i.e. land, water, terms of reference and PPA for Katwa STPP (2x660MW). It has been stated that as and when old units of Badarpur TPS are retired then NTPC will have to surrender coal linkage of Badarpur TPS.</p> <p>iii. Allocation of Long-term Coal Linkage for Super Critical Power Project, Talcher, STPP-III (2x660 MW), NTPC at Orissa - MoP has mentioned that NTPC has tied up inputs i.e. land, water, terms of reference &amp; PPA for Talcher Stage-III (2x660 MW). It has been stated that NTPC shall surrender the coal linkage of retiring units of Talcher TPP as and when</p>	<p>i. The PP stated that the Plant is likely to come by 2024 and has no source of coal linkage. The linkages of old units at Singrauli shall be surrendered after the plant is decommissioned.</p> <p>ii. The PP stated that it was earlier allocated coal linkage under automatic transfer policy where linkage of Badarpur was transferred to Katwa, however, the Badarpur plant has still not been decommissioned and it may take another few years before the plant is decommissioned.</p> <p>iii. The PP stated that the Plant is likely to come by 2024 and has no source of coal linkage. The linkages of old units at Talcher shall be surrendered after the plant is decommissioned.</p>	<p>SLC (LT) recommended the grant of linkage to these three plants from CIL.</p> <p>However, during allocation of coal linkage from subsidiary(ies) of CIL, CIL shall have consultations with Ministry of Shipping and Ministry of Railways so that the linkages are allocated from sources based on coal availability and transportability.</p>

Sujeet Kumar  
15/5/18

	they will retire. SLC(LT) to take a view in the matter.		
<b>Item No. 3:</b> <b>Bridge Linkage extension of Ib TPP, 2 x 660 MW, OPGCL, Odisha</b>	<p>Manoharpur and Dip Side Manoharpur coal block were allotted in favor of Orissa Coal and Power Ltd which is a JV company of Odisha Power Generation Corporation Ltd (OPGCL) and OHPC on 31.08.2015. Based on the allotment of coal block, SLC (LT) in its meeting held on 18.03.2016 recommended grant of Bridge Linkage to 2 x 660 MW, Ib TPP from CIL for a period of 3 years from the date of allotment of coal block i.e. 31.08.2015. Bridge Linkage of Ib TPP will expire on 30.08.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>Govt. of Odisha vide letters dated 18.01.2017, 13.11.2017 requested for extension of Bridge Linkage for a period of 5 years i.e. up to 2021-22. Govt. of Odisha vide letter dated 18.01.2017 stated that as per the schedule, the coal production from the linked allocated mines will start from April, 2019 onwards and will be ramped up to full capacity by the year 2022-23.</p> <p>SLC (LT) is to take a view in the matter.</p>	The PP stated that the production from the coal block will start from April, 2019 and the peak rated capacity (PRC) shall be achieved in 2022. The PP also stated that the mine plan is submitted to Ministry of coal for approval. The NA informed that as per the CMPDA the production start date of coal block is 2021.	The SLC(LT) recommended that the Bridge Linkage may be extended up to 2022 and shall be on tapering basis from 2019 to 2022 as per the approved mining plan. The tapering shall be carried out by CCO based on the approved mining plan. In case the coal production commences before the date which is mentioned in the approved mining plan or the production is more than the quantity which is mentioned in the approved mining plan, the PP shall intimate this information to CCO and the coal company and that the PP in no case shall draw excess coal.
<b>Item no. 4:</b> <b>Time Extension of Bridge Linkage for Harduaganj Extn TPP of UPRVUNL (1 x 660 MW).</b>	<p>Saharpur - Jamarpani coal block was allotted to Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd (UPRVUNL) on 13.08.2015 for supplying coal to Harduaganj Extn TPP, Jawaharpur TPP, Obra 'C' and Panki Extn TPP.</p> <p>Based on the allotment of coal block, SLC (LT) in its meeting held on 18.03.2016 granted Bridge Linkage to Harduaganj Extn (1 x 660 MW) for 3 years from the date of allotment of coal</p>	No representative of project proponent was present.	SLC (LT) deferred the case.

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14/5/18 9/11

block i.e. 13.08.2015. Bridge Linkage duration of above Power plant will expire on 12.08.2018.

As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.

UPRVUNL vide letter 12.03.2018 requested for time extension for bridge linkage for end use projects of Saharpur-Jamarpani coal block stating that Power generation from Harduaganj Extn is expected from January 2020. UPRVUNL has applied for fresh PL of 15 Sq. Km on 13.01.2017, but PL has not been issued due to pending of approval of PL with MoC/Jharkhand Govt. UPRVUNL is trying hard to get the PL at the earliest so that exploratory drilling can be started soon. UPRVUNL further stated that considering the facts and hard ground realities at site production of coal from this block is not possible by 12.08.2018. It has been requested to extend Bridge Linkage for further 6 years i.e. up to August 2024.

SLC (LT) is to take a view in the matter.

<p><b>Item no. 5:</b> Time Extension of Bridge Linkage for Jawaharpur TPP of UPRVUNL (2 x 660 MW).</p>	<p>Saharpur-Jamarpani coal block was allotted to Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd (UPRVUNL) on 13.08.2015 for supplying coal to Harduaganj Extn TPP, Jawaharpur TPP, Obra 'C' and Panki Extn TPP.</p>	<p>No representative of the project proponent was present.</p>	<p>SLC (LT) deferred the case.</p>
	<p>Based on the allotment of coal block, SLC (LT) in its meeting held on 18.03.2016 granted Bridge Linkage to Jawaharpur TPS (2 x 660 MW) for 3 years from the date of allotment of coal block i.e. 13.08.2015. Bridge Linkage duration of above Power plant will expire on 12.08.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is</p>		<p><i>Sujat Kumar</i> 15/5/18</p> <p>5/14</p>

	<p>granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>UPRVUNL vide letter 12.03.2018 requested for time extension for bridge linkage for end use projects of Saharpur-Jamarpani coal block stating that Power generation from Jawaharpur is from December 2020. UPRVUNL has applied for fresh PL of 15 Sq. Km on 13.01.2017, but PL has not been issued due to pending of approval of PL with MoC/ Jharkhand Govt. UPRVUNL is trying hard to get the PL at the earliest so that exploratory drilling can be started soon. UPRVUNL further stated that considering the facts and hard ground realities at site production of coal from this block is not possible by 12.08.2018. It has been requested to extend Bridge Linkage for further 6 years i.e. up to August 2024.</p> <p>SLC (LT) is to take a view in the matter.</p>		
<p><b>Item no. 6:</b> <b>Time Extension of Bridge Linkage for Obra 'C' TPS (2 x 660 MW).</b></p>	<p>Saharpur-Jamarpani coal block was allotted to Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd (UPRVUNL) on 13.08.2015 for supplying coal to Harduaganj Extn TPP, Jawaharpur TPP, Obra 'C' and Panki Extn TPP.</p> <p>Based on the allotment of coal block, SLC (LT) in its meeting held on 21.06.2016 granted Bridge Linkage to Obra 'C' TPP (2 x 660 MW) for 3 years from the date of allotment of coal block i.e. 13.08.2015. Bridge Linkage duration of above Power plant will expire on 12.08.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p>	<p>No representative of the project proponent was present.</p>	<p>SLC(LT) deferred the case.</p> <p style="text-align: right;">Sujeet Kumar 15/5/18</p>

6/18

UPRVUNL vide letter 12.03.2018 requested for time extension for bridge linkage for end use projects of Saharpur-Jamarpani coal block stating that Power generation from Obra 'C' is expected from December 2020. UPRVUNL has applied for fresh PL of 15 Sq. Km on 13.01.2017, but PL has not been issued due to pending of approval of PL with MoC/Jharkhand Govt. UPRVUNL is trying hard to get the PL at the earliest so that exploratory drilling can be started soon. UPRVUNL further stated that considering the facts and hard ground realities at site production of coal from this block is not possible by 12.08.2018. It has been requested to extend Bridge Linkage for further 6 years i.e. up to August 2024.

SLC (LT) is to take a view in the matter.

<p><b>Item no. 7:</b> Time Extension of Bridge Linkage for Panki Extn of UPRVUNL (1 x 660 MW).</p>	<p>Saharpur-Jamarpani coal block was allotted to Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd (UPRVUNL) on 13.08.2015 for supplying coal to Harduaganj Extn TPP, Jawaharpur TPP, Obra 'C' and Panki Extn TPP.</p> <p>Based on the allotment of coal block, SLC (LT) in its meeting held on 18.03.2016 granted Bridge Linkage to Panki Extn (1 x 660 MW) for 3 years from the date of allotment of coal block i.e. 13.08.2015. Bridge Linkage duration of above Power plant will expire on 12.08.2018</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>UPRVUNL vide letter 12.03.2018 requested for time extension for bridge linkage for end use projects of Saharpur-Jamarpani coal block stating that UPRVUNL has applied for fresh PL of</p>	<p>No representative of project proponent present.</p>	<p>SLC(LT) deferred the case.</p>
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7/14

	<p>15 Sq. Km on 13.01.2017, but PL has not been issued due to pending of approval of PL with MoC/Jharkhand Govt. UPRVUNL is trying hard to get the PL at the earliest so that exploratory drilling can be started soon. UPRVUNL further stated that considering the facts and hard ground realities at site production of coal from this block is not possible by 12.08.2018. It has been requested to extend Bridge Linkage for further 6 years i.e. up to August 2024.</p> <p>SLC (LT) is to take a view in the matter.</p>		
<p><b>Item no. 8:</b> <b>Time Extension of Bridge Linkage for Tanda STPP of NTPC, 2 x 660 MW (Stage-II).</b></p>	<p>Kerandari coal block was allotted to Tanda STPP of NTPC, 2 x 660 MW (Stage-II) on 08.09.2015. Based on the allotment of coal block, SLC (LT) in its meeting held on 18.03.2016 recommended grant of Bridge Linkages to 2 x 660 MW Tanda STPP for 3 years from the date of allotment of coal block i.e. 08.09.2015. Bridge Linkage will expire on 07.09.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>NTPC vide letter dated 28.02.2018 requested MoP to recommend MoC for extension of bridge Linkage coal for NTPC projects i.e. Kudgi(3 X 800 MW), Barh-II (2 X 660 MW), Lara (2 X 800 MW), Tanda (2 X 660 MW) &amp; Darlipalli (2X800 MW) for another 3 years period/ till coming to production capacity of the coal block/mine allocated to these end use projects.</p> <p>SLC (LT) is to take a view in the matter.</p>	<p>The PP stated that the Stage-II FC of the coal block is pending and the production is likely to start in 2019 and PRC shall be achieved by 2022.</p>	<p>The SLC (LT) recommended that the Bridge Linkage may be extended up to 2022 and shall be on tapering basis from 2019 to 2022 as per the approved mining plan. The tapering shall be carried out by CCO based on the approved mining plan. In case the coal production commences before the date which is mentioned in the approved mining plan or the production is more than the quantity which is mentioned in the approved mining plan, the PP shall intimate this information to CCO and the coal company and in no case shall draw excess coal.</p>
<p><b>Item no. 9:</b> <b>Time Extension of Bridge Linkage for Lara STPP of</b></p>	<p>Talaipalli coal block was allotted to Lara STPP of NTPC, 2 x 800 MW (Stage-I) on 08.09.2015. Based on the allotment of coal block, SLC (LT) in its meeting held</p>	<p>The PP stated that as per the agreement the production from coal block shall start from November, 2019 and peak rated capacity shall be</p>	<p>The SLC (LT) recommended that the Bridge Linkage may be extended up to 2022 and shall be on tapering basis</p>

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<p>NTPC, 2 x 800 MW (Stage-I).</p>	<p>on 8.03.2016 recommended grant of Bridge Linkages to 2 x 800 MW Lara STPP for 3 years from the date of allotment of coal block i.e. 08.09.2015. Bridge Linkage will expire on 07.09.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>NTPC vide letter dated 28.02.2018 requested MoP to recommend MoC for extension of bridge Linkage coal for NTPC projects i.e. Kudgi(3X800 MW), Barh-II (2X660 MW), Lara (2X800 MW), Tanda (2X660 MW) &amp; Darlipalli (2X800 MW) for another 3 years period/ till coming to production capacity of the coal block/mine allocated to these end use projects.</p> <p>SLC (LT) is to take a view in the matter.</p>	<p>achieved in 2022.</p> <p>However, NA intimated that the scheduled date of mine opening permission as per the Allotment agreement is May 2019.</p>	<p>from 2019 to 2022 as per the approved mining plan. The tapering shall be carried out by CCO based on the approved mining plan. In case the coal production commences before the date which is mentioned in the approved mining plan or the production is more than the quantity which is mentioned in the approved mining plan, the PP shall intimate this information to CCO and the coal company and in no case shall draw excess coal.</p>
<p>Item no. 10: Time Extension of Bridge Linkage for Darlipali STPP of NTPC, 2 x 800 MW.</p>	<p>Dulanga coal block was allotted to Darlipali STPP of NTPC, 2 x 800 MW on 08.09.2015. Based on the allotment of coal block, SLC (LT) in its meeting held on 18.03.2016 recommended grant of Bridge Linkages to Darlipali STPP, 2 x 800 MW for 3 years from the date of allotment of coal block i.e. 08.09.2015. Bridge Linkage will expire on 07.09.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>NTPC vide letter dated 28.02.2018 requested MoP to recommend MoC for extension of bridge Linkage coal for NTPC projects i.e. Kudgi(3X800 MW), Barh-II (2X660 MW), Lara (2X800 MW), Tanda (2X660 MW) &amp; Darlipalli (2X800 MW) for another 3 years period/ till coming to production</p>	<p>The PP informed that the coal mine has been opened and the PRC shall be achieved by 2022.</p>	<p>The SLC (LT) recommended that the Bridge Linkage may be extended up to 2022 and shall be on tapering basis from 2018 to 2022 as per the approved mining plan. The tapering shall be carried out by CCO based on the approved mining plan. In case the coal production commences before the date which is mentioned in the approved mining plan or the production is more than the quantity which is mentioned in the approved mining plan, the PP shall intimate this information to CCO and the coal company and in no case shall draw excess coal.</p>

Sujeet Kumar  
15/5/18 9/11

	<p>capacity of the coal block/mine allocated to these end use projects.</p> <p>SLC (LT) is to take a view in the matter.</p>		
<p><b>Item no. 11:</b> <b>Time Extension of Bridge Linkage for Barh STPP of NTPC, 2 x 660 MW.</b></p>	<p>Chatti-Bariatu and Chatti Bariatu (South) coal block was allotted to Barh STPP of NTPC, 2 x 660 MW (Stage-II) on 08.09.2015. Based on the allotment of coal block, SLC (LT) in its meeting held on 13.03.2016 recommended grant of Bridge Linkage to Barh STPP, 2 x 660 MW for 3 years from the date of allotment of coal block i.e. 08.09.2015. Bridge Linkage will expire on 07.09.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>NTPC vide letter dated 28.02.2018 requested MoP to recommend MoC for extension of bridge Linkage coal for NTPC projects i.e. Kudgi(3X800 MW), Barh-II (2X 660 MW), Lara (2X800 MW), Tanda (2X660 MW) &amp; Darlipalli (2X800 MW) for another 3 years period/ till coming to production capacity of the coal block/mine allocated to these end use projects.</p> <p>SLC (LT) is to take a view in the matter.</p>	<p>The PP informed that the coal block opening permission has been obtained and production shall start from 2018 and PRC shall be achieved by 2023.</p>	<p>The SLC (LT) recommended that the Bridge Linkage may be extended up to 2023 and shall be on tapering basis from 2018 to 2023 as per the approved mining plan. The tapering shall be carried out by CCO based on the approved mining plan. In case the coal production commences before the date which is mentioned in the approved mining plan or the production is more than the quantity which is mentioned in the approved mining plan, the PP shall intimate this information to CCO and the coal company and in no case shall draw excess coal.</p>
<p><b>Item no. 12:</b> <b>Time Extension of Bridge Linkage for Kudgi STPP of NTPC (Stage-I), 3 x 800 MW.</b></p>	<p>Bhalumuda coal block was allotted to Kudgi STPP (Stage-I) of NTPC, 3 x 800 MW on 31.03.2015. Based on the allotment of coal block, SLC (LT) in its meeting held on 18.03.2016 recommended grant of Bridge Linkage to Kudgi STPP (Stage-I) of NTPC, 3 x 800 MW for 3 years from the date of allotment of coal block i.e. 31.03.2015. Bridge Linkage was expired on 30.03.2018. With the approval of Competent Authority, Bridge Linkage of Kudgi STPP (3 x 800 MW) has been extended for a period of 3 months from the</p>	<p>The PP informed that due to high stripping ratio more land is required for placing the OB removed from the mine and the PP was also considering for clubbing this block with another adjacent coal block. The PP further informed that another four years shall be needed for development of this coal block.</p> <p>However, CBA-I stated that NTPC requested MoC for merger of Bhalumuda and Bani in one single block for optimal exploitation and OB dump</p>	<p>The SLC (LT) recommended that the Bridge Linkage may be extended up to 2022 and shall be on tapering basis from the year when production starts as per the approved mining plan. The tapering shall be carried out by CCO based on the approved mining plan. In case the coal production commences before the date which is mentioned in the approved mining</p>

*Suyata*  
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	<p>date of which Bridge Linkage expired.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>Comments of CBA-I section regarding status of coal production from Bhalumuda coal block are as under:</p> <p>"The coal block has been allocated under the provisions of Mines and Minerals (Development and Regulation) Act, 1957. This is regionally explored coal block and production from the said block would take time. Further, during the Exploration period and Development period of the coal blocks, the block allocattees are required to achieve the milestones as set forth in the Coal Block Development and Production Agreement (CBDPA) for carrying out the exploration and development activities."</p> <p>NTPC vide letter dated 28.02.2018 requested MoP to recommend MoC for extension of bridge Linkage coal for NTPC projects i.e. Kudgi(3X800 MW), Barh-II (2X660 MW), Lara (2X800 MW), Tanda (2X660 MW) &amp; Darlipalli (2X800 MW) for another 3 years period/till coming to production capacity of the coal block/mine allocated to these end use projects.</p> <p>SLC (LT) is to take a view in the matter.</p>	<p>within the revised block boundary which is under examination</p>	<p>plan or the production is more than the quantity which is mentioned in the approved mining plan, the PP shall intimate this information to CCO and the coal company and in no case shall draw excess coal.</p>
<p>Item no. 13: Transfer of Coal linkage as per Automatic coal transfer policy.</p>	<p>Maharashtra State Power Generation Co. Ltd. (MAHAGENCO) vide letter dated 12.07.17 requested for transfer of old unit's coal linkage of 2.922 MTPA to upcoming Supercritical Units - Bhusawal 660 MW and accord approval for additional .258 MTPA coal to fulfill total requirement of 3.18 MTPA as per Automatic coal transfer policy.</p>	<p>No project proponent was present</p>	<p>SLC(LT) deferred the case.</p> <p style="text-align: right;"><i>Sujeet Kumar</i> 15/5/18 14</p>

Mahagenco stated that MoC allocated Machhakata Coal fields, Odisha, jointly to Mahagenco and Gujarat state electricity co. Ltd under Government dispensation quota vide letter No. 13016/13/2005-CA dtd 6th Feb 2006. The Coal requirement quantity 3.18 MTPA for this unit was proposed to be sourced from Mahanadi / Machhakata. But, Hon. Supreme Court vides Judgment dtd. 25.08.2014 and 24.09.2014 in W.P. No. 120 of 2012 and other connected matters has cancelled the allocation of 204 coal block which includes Machhakata coal block.

Mahagenco is planning to discard the old units Koradi U-5 (1x200MW), Parli U-3 (1x210MW) and Bhusawal U-2(1x210MW) due to expiry of useful life & related environmental issues. As per automatic linkage transfer policy, it has been requested to transfer old unit's coal linkage of 2.922 MTPA from CIL subsidiaries to Bhusawal replacement projects of 1x660MW super critical capacity and to accord approval for addition quantity 0.258MMTPA so that total requirement of 3.18MT at 85% PLF for Bhusawal 660MW.

As per the automatic transfer of coal linkage policy, in view of the multi-fold benefits of Super-Critical units, Linkage granted to old plants shall be automatically transferred to the new plant of Super Critical capacity and if the capacity of new Super critical plant is higher than the old plant, additional coal may be accorded priority, subject to availability of coal.

Comments of CIL are awaited in the matter.

SLC (LT) is to take a view in the matter.

*Pragati Kumar*  
12/11/14

<p>Item no. 14 Extension of bridge Linkage time period for Mahagenco EUP's at Koradi (3 x 660 MW), Chandrapur (2 x 500 MW) and Parli (1 x 250 MW)</p>	<p>Mahagenco vide letter dated 22.03.2018 has requested to extend the Bridge Linage for further three years i.e. up to August 2021 for its EUPs at Chandrapur Unit 8 &amp; 9 (2 x 500 MW), Koradi Unit 8,9 &amp; 10 ( 3 x 660 MW), Parli Unit 8 (1 x 250 MW), considering the delay in start of coal production from allotted mine from garc Palma-II due to delay in getting approval of Forest &amp; Environment clearances incorporating modified bounding coordinates as per Corrigendum issued to the previous Allotment Order.</p>	<p>No project proponent was present</p>	<p>SLC(LT) deferred the case.</p>
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With the permission of the Chair, the following issues which were not listed in the agenda, were also discussed:

S.No.	Issue	Summary of discussion	Recommendations with reasons
<p>1. Request for Extension of Bridge Linkage of SCCL's TPP, 2 x 600 MW (Stage-I), Pegadapalli, Telangana</p>	<p>A request is received from SCCL vide letter dated 07.04.2018 regarding request for extension of Bridge Linkage validity date.</p> <p>It has been stated that Naini coal block in Odisha was allotted to SCCL on 13.08.2015 for SCCL's 2 x 600 MW TPP (Stage-I) and additional 1 x 600 MW 3<sup>rd</sup> unit (Stage-II). SLC (LT) in its meeting held on 18.03.2016 granted Bridge Linkage to 2 x 600 MW Singareni TPP located at Pegadapalli village, Telangana State for 3 years from the date of allotment of coal block i.e. 13.03.2015. Bridge Linkage will expire on 12.08.2018.</p> <p>As per the Bridge Linkage policy, Bridge Linkage is granted for a fixed period of 3 years from the date of allotment of coal block and no further extension thereafter entertained under normal circumstances.</p> <p>It has been stated that after obtaining clearances and establishing other infrastructure facilities, coal production is expected by February 2021 as per the original schedule. It has been requested to extend Bridge Linkage up to March 2021.</p>	<p>The PP informed that the mining plan for the coal block shall be submitted in this month and the production is scheduled to start in February, 2021 and PRC shall be achieved by 2023.</p>	<p>The SLC(LT) recommended that the Bridge Linkage may be extended upto 2023 and shall be on tapering basis from 2021 to 2023 as per the approved mining plan. The tapering shall be carried out by CCO based on the approved mining plan. In case the coal production commences before the date which is mentioned in the approved mining plan or the production is more than the quantity which is mentioned in the approved mining plan, the PP shall intimate this information to CCO and the coal company and in no case shall draw excess coal.</p>

Sujeet Kumar  
13/5/18  
13/14

<p><b>2. Request for Coal linkage under SHAKTI Policy for Bellary TPS Unit 3 (700 MW) and Yermarus TPS (2x800 MW)</b></p>	<p>Ministry of Power vide its OM dated 09.04.2018 has referred to letters received from Minister for Energy, Govt. of Karnataka and KPCL regarding coal linkage under SHAKTI Policy for Bellary TPS Unit 3 (700 MW) &amp; Yermarus TPS (2x800 MW) and extension of Bridge linkage and has stated that the matter has been examined in consultation with CEA.</p> <p>MoP has stated that Bellary TPS Unit 3 (700 MW) and Yermarus TPS (2x800 MW) are commissioned projects and are already under operation. MoP has mentioned that Deocha Pachami coal block was earlier allocated to KPCL with Bellary TPS Unit 3 and Yermarus TPS (2x800 MW) as the end use projects and subsequently allotment of Deocha Pachami coal block was cancelled by Ministry of Coal. MoP has also referred to MoC's letter dated 08.03.2018 regarding discontinuation of bridge linkage after 31.05.2018.</p> <p>Ministry of Power has requested Ministry of Coal to :</p> <p>i. Provide long term coal linkage to Bellary TPS Unit 3 (700 MW) and Yermarus TPS (2x800 MW) under Para B(i) of SHAKTI Policy.</p> <p>ii. Continue the bridge linkage till long term linkage is approved and operationalized for these plants.</p>	<p>Ministry of Power recommended the regular linkage to the Unit 3 of Bellary TPS and Yermarus TPS under Para B(i) of the SHAKTI Policy. The PP requested for grant of linkage as all the units were operational. SCCL informed that it shall not be in a position to supply coal under linkage to these units as it was having linkage commitments with TSGENCO.</p>	<p>SLC(LT) recommended for linkage for the 700 MW Bellary TPS Unit 3 and 2x800 MW Yermarus TPP from SCCL for a period of 3 years from the date of signing of FSA and thereafter the full linkage of all these units shall be transferred to CIL.</p>
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*Subject Matter*  
18/11



SINGARENI COLLIERIES COMPANY LIMITED  
(A Government Company)

**CORPORATE SOCIAL RESPONSIBILITY POLICY**

The Policy is known as Corporate Social Responsibility Policy of The Singareni Collieries Company Limited.

**Preamble:**

One of the greatest challenges facing the world today is integrating economic activity with environmental and social concerns. The objective of such integration is achievement of 'sustainable development'. The mining and mineral industry has come under tremendous pressure to address/ improve social, developmental and environmental concerns. Like other parts of business world, companies are more routinely expected to perform to highest standards of behaviour, going well beyond achieving profitability goals. They are also increasingly being asked to be more transparent. In response to this The Singareni Collieries Company Limited (SCCL) has committed to bringing economic and social benefits through its Corporate Social Responsibility (CSR) initiatives. This policy document may therefore serve SCCL in extending CSR activities for the benefit of Society at large.

**Objective:**

The CSR policy has been framed in accordance with the provisions of the Companies Act, 2013 and the Rules made thereunder.

The main objective of this Policy is to integrate CSR and Sustainability as a key business process for achieving triple-bottom line impact as mentioned below;

- SCCL recognizes that pursuit of sustainable development is an integral part of growing its business, creating value for its stakeholders and in building a responsible future through ethical business practices and governance.
- SCCL supports practical measures and policies that will help to protect and improve the environment.

- SCCL adopts a responsible approach towards communities and aim for sustainable development without creating dependency.

**Major Thrust Areas:**

The major thrust areas of the CSR policy are identified with a view to have long term benefits to the Society which are as under:

1. Basic Services (Drinking Water supply, Sanitation etc.)
2. Health
3. Education
4. Livelihood and Local Economic Development
5. Interventions for marginalized communities such as SCs and STs
6. Other related activities.

**Scope & Implementation:**

**Scope:**

The scope of CSR activities of SCCL in line with Schedule VII of Companies Act, 2013 is as follows:

- Environment
  - ✓ Involvement of community for additional efforts to create better environment while complying with applicable environmental regulations.
  - ✓ Minimise environmental impacts and risks to provide opportunities for building relationships with local communities.
  - ✓ Promote environment friendly technologies.
- Communities & Society
  - ✓ Promote multi-stakeholder partnerships to look at longer-term, sustainable solutions.
  - ✓ Build two-way and inclusive channel of communication with communities.
  - ✓ Provide support during natural calamities, disasters and other emergencies.
- Business
  - ✓ Provide opportunities to local and small entrepreneurs for business participation through ancillarisation.

**Geographical area to be covered:**

A substantial portion of CSR Budget i.e., to the extent of 80% shall be spent on CSR activities in all the four districts of Telangana State viz., Khammam, Warangal, Karimnagar and Adilabad where the coal fields are located and 20% may be spent outside the aforesaid four districts of Telangana State.

**Implementation:**

- ❖ A major portion of the CSR activities should be undertaken in project mode. Every project shall be time framed.
- ❖ Identified CSR activities are to be implemented / carried out by the company itself or by other agencies as prescribed in the provisions of the Companies Act, 2013 and the Rules made thereunder.

To support implementation of the policy, SCCL will undertake the following:

- ✓ Ensure active involvement of the top management through their visible support in spreading the message of CSR & Sustainability within the organization.
- ✓ Devise internal communication strategies to spread awareness of CSR and Sustainability amongst the employees.
- ✓ Ensure committed involvement of all employees in carrying forward the agenda of CSR and Sustainability.
- ✓ Create a suitable organization structure to oversee implementation of the policy.
- ✓ Allocate budget for implementation of CSR and Sustainability initiatives.
- ✓ Periodically measure, review, communicate and report CSR & Sustainability performance as per multi-year plan made in consultation with key stakeholders to the Board.

**Institutional arrangements**

Implementation of the CSR Policy would be driven by:

➤ At the Board level:

There shall be a CSR Committee of Directors which presently comprises C&MD, SCCL as Chairman of the Committee, Director (Finance) as Member, Director (Operations) as Member and Director (PA&W) as Member Convener.

➤ Below Board level:

- ✓ C&MD & Functional Director's shall be responsible and accountable for integrating CSR, Sustainability and Community Development into business processes and support progress towards application of principles of sustainable development into business operations.
- ✓ General Manager (Personnel) Welfare & CSR facilitates integration of CSR, Sustainability and Community Development in business and management systems. He consolidates CSR proposals in consultation with Corporate / Area CGMs / GMs concerned and presents them to Director(PA&W) for making suitable recommendations, with concurrence of Director(Finance), for approval of C&MD / Board in accordance with extant delegation of powers.

**Base Line Survey & Documentation:**

- ❖ CSR activities which are of more than Rs. 1.0 Crore value shall be taken up after ascertaining Social Benefit Analysis through Base Line Survey through the external agency having relevant professional expertise in the field or through internal mechanism.
- ❖ CSR activities relating to providing infrastructure to Schools, Colleges, Professional institutions where social benefit is involved, Base Line Survey is not required. However, the social benefit and justification has to be ascertained.
- ❖ Proper Documentation of CSR activities, expenditure, procurement etc., shall be done and put in the Public Domain i.e., SCCL's Website.

**Monitoring :**

- The CGM / GM concerned shall monitor implementation of CSR activities / Programmes / Projects and send monthly status report to the General Manager (Personnel) Welfare & CSR.
- GM (Personnel) Welfare & CSR shall prepare a consolidated Monthly Report on status of implementation of CSR activities in the company and submits the same to the Committee of Functional Directors who in turn apprises C&MD & CSR Committee.
- CSR Committee at Board level shall review implementation of CSR activities / programmes / projects across the company on quarterly basis.
- Utilization Certificate with statement of expenditure duly certified by a practicing Chartered Accountant/Authorised Auditor shall be submitted by the Organisation/Institution/Trust to whom CSR fund is allocated.

**Upkeep and maintenance of assets created:**

Maintenance of assets created under CSR activities would be the responsibility of the State Government, local representative of the society and NGO concerned through which CSR activities are implemented and undertaking/consent shall also be taken to that effect.

**Reflection of CSR activities:**

All the CSR activities undertaken by the company shall be audited by a local authorized auditor. CSR activities will be reflected in the Annual Report under Social Overhead (CSR).

**Conclusion:**

This Policy supersedes the Policy relating to Surrounding Habitat Assistance Programme (SHAPE).



THE SINGARENI COLLIERIES COMPANY LIMITED  
(A Government Company)  
2 X 600 MW SINGARENI THERMAL POWER PLANT  
Jaipur (V&M)-504216, Mancherial (Dist), Telangana State.

Ref No: STPP/COML/2019-20/45 / 61

Dt.18.03.2019

NOTE

Sub: Approval for submission of ARR and MYT petition and Business and Payment of requisite filing fee to TSERC along with required authorization for filing Multi-year tariff petition for ensuing control period of 2019-24.

\*\*\*\*\*

1. SCCL has established Singareni thermal power plant (STPP) in Jaipur, Telangana in FY 2016-17. SCCL had entered into a Power Purchase Agreement (PPA) with two Distribution companies of Telangana for supplying the total power generated from STPP at a tariff decided by hon'ble Telangana State Electricity Regulatory Commission (TSERC).
2. The Hon'ble TSERC has notified terms and condition for determination of generation tariff regulation 2019 on 04.01.2019. This regulation shall be applicable to all existing and future generating entities for determination of annual revenue requirement in the state of Telangana from 1st April 2019 to 31st March 2024.
3. SCCL has to submit Aggregate Revenue Requirement and Multi-Year tariff petition 2019-24, Business Plan 2019-24 and Capital investment Plan 2019-24 within 31st March 2019 before the Hon'ble TSERC as per regulation 3.8.1, regulation 7 and regulation 27 of generation tariff regulation 2019. The relevant portion of regulation is attached as Flag -A.
4. The capital investment plan is already approved by the competent authority. Further to this, the Aggregate revenue requirement (ARR) and Business Plan are made with the necessary inputs from O&M, finance, Civil, Coal, Personnel & E&M department for submission. The same is now ready for submission to

TSERC. The copy of ARR is attached in Flag -B and copy of business plan is attached in Flag-C.

5. As per Telangana State Electricity Regulation commission, Hyderabad (Conduct of Business) Regulations, 2015, Chapter II, point Sl. No. 11(5), the proceedings initiated before the commission is to be signed by the Managing Director or a Director of the Company. Any other person signing the petition should have authorization from the Board of Directors by a specific or general resolution. Copy of the relevant portion of the regulation is attached as Flag D.
6. Further, as per Sl.No. 4.3.a of Regulation no. 2 of 2016 "Levy of fees for various services rendered by the commission" a fee of Rs 20,000/- per MW with a maximum of Rs 150 lakhs. Further, business plan and capital investment plan can be filed under section 94(2) for which a fee of 10,000 each will be required as per 4.4.c of the fees regulations. Copy of the relevant portion is attached as Flag E.
7. It is to submit that the Director (Finance) was authorized to sign the Tariff Petition for the first control period (2016-19).
8. Accordingly, it is kindly requested to approve
  - I. The ARR and MYT petition and Business Plan for submission to TSERC
  - II. Payment of Rs 150 Lakhs to TSERC towards tariff filing fee along with tariff application.
  - III. Payment of 20 thousand (10 thousand each) towards filing fee for Business plan & capital investment plan.
  - IV. Authorisation of Director (Finance) to sign tariff application of STPP (2X600MW) & all other associated filing related to tariff (Business plan & Capital investment plan) for 2019-24 as it was done previously.

  
18.3.19  
DGM(R&C)/STPP

Ref No: STPP/COML/2019-20/45

Dt.18.03.2019

GM (F&A), STPP

*Signature*  
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ED, STPP

*Signature*  
18/3

*Signature*  
22/3  
GM (F&A)/Corporate

*Signature*  
Director (E&M)

Signed on fax

Director (P&P)

*Signature*  
22/3  
Director (Operations)

*Signature*  
22/3  
Director (Finance)

C&MD  
*Signature*

OFFICE OF G.M. (F&A)  
F.M.S. IN No 2288  
DATE 20/3/19

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Ref No: STPP/COML/2019-20/45

Dt. 18.03.2019

GM (F&A), STPP

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GM (F&A)/Corporate

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Director (E&M)

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Director (P&P)

Director (Operations)

Director (Finance)

C&MD

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OFFICE OF G.M. (F&A)  
F.M.S. IN No. 2288  
DATE 20/3/19

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Annexure-III

भारतीय स्टेट बैंक  
State Bank of India  
सिंगरानी कोयला क्षेत्रीय शाखा HYDERABAD  
डिपॉजिट कोड / CODE No: 04168  
पिन कोड / PIN No. 040-24757979

बैंकर्स चेक  
BANKERS CHEQUE

Key: NIJBET  
Sr. No: 28514

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PAY SECRETARY, TSERC, HYDERABAD \*\*\*\*\*

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OR ORDER

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Name of Applicant

Key: NIJBET Sr. No: 28514  
THE SINGARENI COLLIERIES COMPA

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इसे भारतीय स्टेट बैंक  
FOR STATE BANK OF INDIA

अहस्तांतरणीय / NOT TRANSFERABLE

प्राधिकृत हस्ताक्षरकर्ता  
AUTHORISED SIGNATORY

गोपी  
BRANCH MANAGER  
SS No: 196  
Commercial  
2466808  
Pin: 040-24757979

कम्प्यूटर द्वारा मुद्रित होने पर ही वैध  
VALID ONLY IF COMPUTER PRINTED

केवल 3 महीने के लिए वैध  
VALID FOR 3 MONTHS ONLY

₹ 1,50,000/- एवं अधिक के निशुद्ध दो अधिकारियों द्वारा हस्ताक्षरित होने पर ही वैध है।  
INSTRUMENTS FOR ₹ 1,50,000/- & ABOVE ARE NOT VALID UNLESS SIGNED BY TWO OFFICERS

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