



TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

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Website www.tserc.gov.in

PUBLIC NOTICE

O. P. No. 8 of 2016

In the matter of according consent to the Power Purchase Agreement (PPA) entered into between M/s. Telangana State Southern Power Distribution Company Limited (TSSPDCL) and M/s. Telangana State Northern Power Distribution Company Limited (TSNPDCL) and M/s. Singareni Collieries Company Limited (SCCL) for procurement of power from 2 x 600 MW Singareni Thermal Power Project situated at Pegadapalli Village, Jaipur Mandal in Adilabad District, Telangana.

Whereas the M/s. Telangana State Southern Power Distribution Company Limited (TSSPDCL) and M/s. Telangana State Northern Power Distribution Company Limited (TSNPDCL) (together known as TSDISCOMs) have entered into a Power Purchase Agreement (PPA) with M/s. Singareni Collieries Company Limited (SCCL) on 18.01.2016 for procuring electricity from the 2 x 600 MW Thermal Power Project being established at Pegadapalli (V) in Jaipur (M) of Adilabad (Dist).

Now, TSSPDCL as the lead procurer for TSDISCOMs has sought approval / Consent to the said PPA under Section 86 (1) (b) of the Electricity Act, 2003 read with Sub-section (4) of section 21 of the APER Act, 1998 in respect of Singareni Thermal Power Project, Stage-I (2 x 600 MW)

The said PPA is placed on the website of the Commission at www.tserc.gov.in as well as the website of TSSPDCL being <https://tssouthernpower.com> and that of SCCL namely, www.scclmines.com. Hard-copies of the PPA and further details can be obtained from the Chief General Manager (Comml. & RAC), TSSPDCL, Corporate Office, Mint Compound, Khairathbad, Hyderabad on payment of charges for photocopy and at the offices of SCCL at Hyderabad and Kothagudem, addresses of which are as given in SCCL website.

Now the Commission desires that all the stake holders interested in the matter and public at large may offer their comments, objections and suggestions on the PPA. The comments, objections and suggestions shall be filed in the form prescribed in **Regulation No. 2 of 2015** being Conduct of Business Regulation available on the website of the Commission at www.tserc.gov.in.

The Comments and suggestions may be filed either in writing addressed to the Secretary TSERC at the above address or sent by email to secy@tserc.gov.in. The comments, objections and suggestions should be filed before the Commission on or before 5.00 PM on 30.04.2016 with a copy of such comments served to TSSPDCL for its response.

Sd/-
COMMISSION SECRETARY

Place: Hyderabad
Date: 28.03.2016

POWER PURCHASE AGREEMENT
BETWEEN
THE SINGARENI COLLIERIES COMPANY LIMITED
AND
TELANGANA STATE SOUTHERN POWER DISTRIBUTION COMPANY LIMITED
TELANGANA STATE NORTHERN POWER DISTRIBUTION COMPANY LIMITED
FOR SALE OF POWER
FROM
SINGARENI THERMAL POWER PROJECT (2X600 MW) (STAGE-I)
Dated 18th day of January 2016

THIS POWER PURCHASE AGREEMENT, hereinafter called “Agreement”, entered into at Hyderabad on this 18th day of January, Two Thousand and Sixteen.

Between

1. Telangana State Southern Power Distribution Company Limited constituted on 02-06-2014 under AP Reorganization Act 2014 and the sub-section (6) of section 23 of Andhra Pradesh Electricity Reform Act, 1998 (Act, 30 of 1998) and having its registered office at 6-1-50, Corporate Office, Mint Compound,

Hyderabad-500 063 (hereinafter referred to as “TSSPDCL”); Telangana State Northern Power Distribution Company Limited, constituted on 02-06-2014 under AP Reorganisation Act 2014 the sub-section (6) of section 23 of Andhra Pradesh Electricity Reform Act, 1998 (Act, 30 of 1998) and having its registered office at H.No.2-5-31/2, Corporate Office, Vidyut Bhavan, Nakkalagutta, Hanamkonda, Warangal - 506001 (hereinafter referred to as “TSNPDCL”); (hereinafter each of TSSPDCL and TSNPDCL are, as the context may require, individually referred to as “TSDISCOMS” and collectively referred to as the “TSDISCOMS” which expression shall, unless it be repugnant to the context or meaning thereof include its successors and assigns), as parties of the first part, and

2. THE SINGARENI COLLIERIES COMPANY LIMITED, constituted under the Companies Act 1956 having its registered office at Kothagudem, Khammam District (hereinafter called “SCCL”) which expression shall, unless repugnant to the context or meaning thereof include its successors and assigns), as party of the second part entered on 18.01.2016 and will be submitted to TSERC for approval.

WHEREAS the erstwhile Govt. of Andhra Pradesh had accorded approval to SCCL for setting up of Singareni Thermal Power Project (2 x 600 MW) Stage-I at Pegadapalli village, Jaipur Mandal, Adilabad District, Telangana State, hereinafter referred to as “Singareni Thermal Power Project (2 x 600 MW) Stage-I”, and generally referred to as “PROJECT” whereas SCCL is a Public Sector Company owned by the Government of Telangana and Government of India in the ratio 51:49 and will be executing the Project and to be owned & operated by SCCL.

AND WHEREAS TSDISCOMS are desirous of purchasing the capacity of 1200 MW from Singareni Thermal Power Project (2 x 600 MW) Stage-I and SCCL is willing to sell the same to TSDISCOMS on mutually agreed terms and conditions.

AND WHEREAS SCCL is setting up Singareni Thermal Power Project (2 x 600 MW) Stage-I at Pegadapalli village, Jaipur Mandal, Adilabad District, Telangana State, hereinafter referred to as “Singareni Thermal Power Project (2 x 600 MW) Stage-I”, and generally referred to as “PROJECT” to be owned and operated by SCCL.

The terms and conditions of the Power Purchase Agreement are as per prevailing TSERC regulations and any changes in TSERC regulations that may occur in future shall be applicable for all operating norms or any other parameters.

Now therefore, in consideration of the premises and mutual agreements, covenants and conditions set forth herein, it is hereby agreed between the Parties as follows:

Article 1: INTERPRETATION AND DEFINITIONS

The words or expressions used in this agreement but not defined hereunder shall have the same meaning assigned to them by the Electricity Act 2003 as amended from time to time, the Rules framed there under and Regulations issued by TSERC from time to time.

- 1.1 **'Act'** means the electricity Act, 2003
- 1.2 **Agreement to Hypothecate cum Deed of Hypothecation** - shall have the meaning as ascribed in Annexure V.
- 1.3 **Availability** - 'Availability' as defined in the TSERC (Terms and Conditions of Tariff) Regulations as amended or replaced from time to time
- 1.4 **Acceptance Test for establishing the Capacity of the Unit** - Acceptance test for establishing the Capacity of the Unit shall be performed in the presence of SCCL and TSDISCOMS representatives and on satisfying the capacity of the Unit, the capital cost of the project shall be arrived at on pro-rata basis against the rated capacity.
- 1.5 **'Additional Capitalization'** means the capital expenditure actually incurred after date of commercial operation of the station and admitted by the Commission after prudence check.
- 1.6 **Approved Capital Cost:** to be taken into account at any time for the purposes of the Tariff means, the amount of Capital Cost of the Project shall be the aggregate of the following sub-items.
 - 1.6.1 The Completed Cost approved by TSERC up to COD.
 - 1.6.2 Any additional Project costs incurred for execution of the Project by SCCL and approved by the TSERC to be included in the final Capital Cost.
 - 1.6.3 Cost of initial spares subject to limitation of 2.5% of the Original Project cost.
 - 1.6.4 Any additional works / services that became necessary for efficient and successful operation of the generating station, but not included in the original project cost as per TSERC regulations applicable from time to time.

- 1.7 Authority:** means the Central Electricity Authority referred to in Electricity (Supply) Act, 1948 or any successor entity entrusted with its functions and capacities.
- 1.8 Auxiliary Consumption:** Auxiliary consumption means the energy consumed by SCCL for operating the unit and facilities in the power plant. The difference between generation and net energy export (Ex-Bus) which is measured for billing purposes by means of the existing meters at SCCL generator terminals as well as outgoing feeders from the station bus is Auxiliary Consumption.
- 1.9 Availability Computation:** It is in relation to a Thermal Generating station for any period means the average of the daily average declared capacity for all the days during that period expressed as a percentage of the installed capacity of the Generating stations minus the normative auxiliary consumption in MW, as specified in this regulation and shall be computed in accordance with the following formula.

$$\text{Availability} = 10000 \times \frac{\sum_{i=1}^N \text{DC}_i}{\{N \times \text{IC} \times (100 - \text{AUX}_n)\}} \%$$

Where

DC_i = Average Declared Capacity for the *i*th day of the period in MW

N = No. of Days during the period

IC = Installed Capacity of the generating station in MW

AUX_n = normative auxiliary consumption as percentage of gross generation.

- 1.10 Billing Centre** - The office as intimated by SCCL to the TSSPDCL and TSNPDCL from where the bills will be raised on them.
- 1.11 Billing Date:** The Billing Date shall be 5 (five) days after the Meter Reading Date in each Calendar month.
- 1.12 Billing Month:** The Billing Month means Metering Date of calendar month to the Metering Date of the next calendar month.
- 1.13 Bus Bars / Ex Bus:** Bus bars of the station to which outgoing feeders are connected.
- 1.14 Business Day:** It shall be construed as a reference to a day (other than Sunday) on which banks are generally open for business in Hyderabad.

- 1.15 Capacity Charges:** Capacity Charges (or) Fixed Charges as determined by TSERC and shall be paid in proportion to the Contracted Capacity from time to time
- 1.16 Capital cost:** - Capital cost of project or its units or stages as the case may be, means the capital expenditure thereof as admitted by the Commission for determination of tariff.
- 1.17 Charges for Supply of Electricity:** Mean and include all charges including the Tariff to be paid by the TSSPDCL and TSNPDCL in respect of supply of electricity to them from the Project in accordance with the provisions of this Agreement
- 1.18 COD of the Project:** means the Commercial Operation Date of both the Units.
- 1.19 Commercial Operation Date or COD:** means in relation to each unit of the thermal generating station, the date declared by the generating company after demonstrating the maximum continuous rating (MCR) or the installing capacity (IC) through a successful trial run after notice to the beneficiaries, from 00:00 hour of which scheduling process as per the Electricity Grid Code (IEGC) is fully implemented, and in relation to the generating station as a whole, the date of commercial operation of the last unit of the generating station.
- 1.20 Contracted Capacity:** Capacity contracted (2x600 MW) by TSSPDCL and TSNPDCL under this Agreement
- 1.21 Cut-off date:** Means 31st March of the year closing after two years of the year of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of the year , the cut-off date shall be 31st march of the year closing after three years of the year of commercial operation.
- 1.22 Date of Effectiveness of Agreement:** Date of signing of this agreement including payment security as envisaged in Annexure V.
- 1.23 Debt:** means the amount of any loans, debentures or other similar obligations, contracted or raised and received by SCCL for the Project, but only to the extent that the proceeds of such capital contribution are exclusively utilized on the Capital Cost of the Project.
- 1.24 Debt Repayment:** means, in relation to a specified period, the amount of Debt 70% of the capital cost which SCCL is due to repay in such period, in Indian Rupees in which the Debt is incurred.

- 1.25 Declared Capacity (DC):** means the capability of the generating station to deliver ex-bus Electricity in MW declared by such generating station in relation to any period of the day or Whole of the day, duly taking into account the availability of fuel.
- 1.26 Depreciation:** means the sum of the amounts of depreciation on buildings, equipment and other capital facilities of the Project on the date hereof, and in respect of any asset, shall be allowed upto 90% of the approved Capital Cost and shall cease so soon as its net book value equals the residual value i.e., 10 percent of its original cost as included in the Capital Cost.
- 1.27 Designated Officer:** The Designated Officer in TSSPDCL and TSNPDCL shall be of the rank of a Financial Advisor & Chief Controller of Account (FA & CCA) and GM (F&A) or any other Officer designated by TSSPDCL and TSNPDCL for matters relating to Billing and Payment.
- 1.28 Dispatch Instructions:** Dispatch Instruction shall be as mentioned in the Grid Code as per clause 1.24
- 1.29 Duration of Agreement:** Duration of Agreement shall be 25 years from date of C.O.D of the Project.
- 1.30 Due Date of Payment:** In case of a regular Monthly Bill due date of payment shall be within 60 (Sixty) days from the Billing Date and in case of a Supplementary Bill it shall be within 60 (Sixty) days from the presentation of the Supplementary Bill to the Designated Officer of TSSPDCL and TSNPDCL.
- 1.31 Energy Certification Committee (ECC):** shall be the Body of the Designated Officers constituted at the headquarters by both the Parties to certify each Billing Month the Net Energy Sale by one Party to the other based the Monthly Meter Readings jointly recorded at the power house.
- 1.32 Equity:** means the actual equity (including internal accruals) limited to 30 percent of Approved Capital Cost of the Project in Rupees and is used for the purposes of computation of ROE in fixed charges during the period of the Agreement.
- 1.33 Escrow Agreement:** Shall have the meaning as ascribed in Annexure V.
- 1.34 Grid Code:** Grid Code means the Code of Technical Interface (Grid Code) 2001 Revision 1, June 2001 as approved by APERC vide Proceedings No. APERC / Dir-Engg / Grid- Code/20 dated 26-05-2001 and adopted by TSERC Lr.No. TSERC No. L-01/DD LAW-1 Dt. 24-11-2014 as Regulation No.1 of 2014.

- 1.35 Gross Calorific Value (GCV):** Gross Calorific Value means, in respect of coal and secondary fuel, heat produced in Kcal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel, as the case may be.
- 1.36 Income Tax:** Taxes on Income actually payable and paid shall be limited to Tax on Return on the Equity component of the RoCE, and exclusive of tax on profit, if any, in excess of such return, penalties, interest on delayed payment of tax etc., and duly adjusted for any refund etc. received for previous periods.
- 1.37 Infirm power:** means electricity injected in to grid prior to the commercial operation of a unit or block of generating station.
- 1.38 Installed Capacity:** means the summation of the name plate capacities of all the units of generating station or the capacity of the generating station (reckoned at the generator terminals) as approved by the commission from time to time.
- 1.39 Installed Capacity Test:** In relation to any Generating Unit means any capacity test of such Generating Unit to be carried out pursuant to Annexure-II (Commissioning and Testing).
- 1.40 Interconnection point:** Interconnection point means the point at the outlet side of HV feeder (including the feeders between the generating stations) breaker where the power plant and the grid are connected in the power plant switchyard.
- 1.41 Interest on Working Capital:** The Interest on Working Capital shall be as per the TSERC Norms.
- 1.42 Licensee:** Means a person, granted a licensee under section 14 of the Electricity Act, 2003.
- 1.43 Maximum continuous rating:** It is in relation to unit of the thermal power generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer at rated parameters, and in relation to a unit or block of a combined cycle thermal power generating station means the maximum continuous output at generator terminals, guaranteed by the manufacturer with steam injection and corrected to 50Hz grid frequency and specified site conditions.

- 1.44 Meter:** ‘Meter’ means a device suitable for measuring, indicating and recording consumption of electricity or any other quantity related with electrical system and shall include, wherever applicable, other equipment such as Current Transformer (CT), Voltage Transformer (VT) or Capacitor Voltage Transformer (CVT) necessary for such purpose;
- 1.45 Metering Date:** Metering Date for the first calendar month will be Date of COD of each unit. Subsequent Metering Date will mean midday (12:00 hours) of the last day of each calendar month. However, the Metering Date of the Financial Year ends at 24:00 Hrs on 31st march of Subsequent year and so on.
- 1.46 Monthly Bill:** Monthly Bill will have the meaning ascribed to it under Article 6 for Thermal Energy supplied under this Agreement.
- 1.47 Net Electrical Energy:** It is the energy, supplied from SINGARENI THERMAL POWER PROJECT 2 x 600 MW Stage-I measured in kWh, at the point of interconnection in accordance with the provisions of Article 7.
- 1.48 Plant Load Factor (PLF):**The Plant Load Factor in a Tariff Year expressed in percentage is:

$$PLF = \frac{\text{Total net Electrical Energy measured at Interconnection Point} \times 100}{(\text{Installed Capacity of Thermal Power Station in MW}) \times (8760) \times (100 - A)}$$

Whereas A is the auxiliary consumption expressed in percentage of the thermal Power station.

- 1.49 Project:** means the coal based Thermal Power Station namely Singareni Thermal Power Project (STPP) 2 x 600 MW Stage-I established at Pegadapalli Village, Jaipur Mandal, Adilabad District, Telangana State, India, having a design rated capacity of 2 x 600 MW and all facilities and related assets required for the efficient, economic and safe operation of the Power Station including, without limitation, any railway yard & equipment, coal handling and ash disposal facilities and sampling and testing facilities and infrastructure features where so ever situated.
- 1.50 Prudent Utility Practices:** Prudent Utility Practices means the practices, methods, techniques, and standards that are generally accepted nationally and internationally from time to time and commonly used in the national and international electric utility industry for the operation and maintenance of equipment of the size and having the other characteristics of a Power Station in a safe, prudent and reliable manner consistent with the parameters for such operation and maintenance set forth in this Agreement, which practices, methods,

techniques and standards shall be adjusted as necessary to take account of the requirements of Law, physical conditions at the site on which a Power Station is located and operation and maintenance guidelines of the manufacturers of plant and equipment incorporated in the Power Station which SCCL is required to follow in order to maintain in effect any warranties, guarantees or insurance policies relating thereto.

- 1.51 Station Heat Rate:** Station Heat Rate means the quantum in Kilo Calories of input heat energy required by a Thermal Power Station to generate one Electrical Energy Unit at the Generator terminals, as per TSERC Regulations.
- 1.52 Supplementary Bill:** Supplementary Bill will have the meaning ascribed to it in Article 6.
- 1.53 Tariff Year:** Tariff Year shall be the financial year.
- 1.54 TSERC:** means the Telangana State Electricity Regulatory Commission constituted under the Andhra Pradesh Reorganisation Act, 2014.

Article 2: ALLOCATION, TRANSMISSION & WHEELING OF POWER

2.1 Installed Capacity:

- 2.1.1 The Installed Capacity of Singareni Thermal Power Project Stage -1 is 1200 MW (2x600 MW).
- 2.1.2 The Project is being developed for the sale of 1200 MW power to TSSPDCL and TSNPDCL, excluding Auxiliary Consumption.

2.2 Allocation of Capacity

- 2.2.1 The Project is being developed for the sale of power to TSSPDCL and TSNPDCL in proportion of sharing as approved by Government of Telangana.
- 2.2.2 The allocation made from the Project by Government of Telangana or any other competent authority in favour of TSSPDCL and TSNPDCL shall be contracted capacity subject to signing of the agreement, opening of LC and providing appropriate payment security mechanism as provided at annexure V in this agreement. TSSPDCL and TSNPDCL shall draw electricity against the above contracted capacity limited to the amount of LC opened and maintained by it. SCCL shall intimate SLDC from time to time regarding the quantum of capacity TSSPDCL and TSNPDCL are eligible to draw

2.3 Transmission / Wheeling of Electricity

- 2.3.1 Sale of electricity shall be at the bus bars of the Project and it shall be the obligation and responsibility of TSSPDCL and TSNPDCL in coordination with TSTRANSCO to make the required arrangement for evacuation of electricity from such delivery points of the SCCL

Article 3: SALE AND PURCHASE OF AVAILABLE ELECTRICAL CAPACITY AND ENERGY

3.1 Power Supplies by SCCL

3.1.1 Scheduling: It is understood and agreed by and between the parties that SCCL shall operate the project as a base load station as per the manufacturers' guidelines, applicable grid operating standards, directions of the TSERC and relevant statutory provisions, as applicable from time to time. Methodology of generation scheduling shall be as per IEGC and TSERC appropriate regulations.

All charges / fees related to scheduling and despatch of electricity shall be borne by TSSPDCL and TSNPDCL.

SCCL shall make declaration of the capacity at the busbars of the station after taking into account the capability of the station to deliver Ex-Bus which shall be considered while calculating Declared Capacity (DC)

3.1.2 Declared Capacity : Declared Capacity or 'DC' means the capability of the station to deliver Ex-Bus electricity in MW declared by the station in relation to any period of the day or whole of the day, duly taking into account the availability of Coal as per the procedure laid down in IEGC

Notwithstanding the following, Station shall be deemed as available to the extent of DC declared by the station for any time period:

- (a) Failure on account of TSSPDCL and TSNPDCL to transmit and wheel electricity from the Ex-Bus of the station in coordination with TSTRANSCO
- (b) Any other reason not attributable to SCCL restricting scheduling and despatch of capacity at the Ex-Bus of the station

3.2 Sale and Purchase of Infirm Power: After Synchronization and prior to the COD of any Generating Unit, SCCL will sell and TSSPDCL and TSNPDCL will purchase all infirm power generated by that Generating Unit in proportion to the allocation made. TSSPDCL & TSNPDCL will reimburse SCCL the actual cost of all Coal & Secondary Fuel consumed for such generation.

- 3.3 **Sale and Purchase of Declared Capacity and Net Electrical Energy:** From and after the Commercial Operation Date of the 1st Unit, subject to the provisions of this Agreement, SCCL shall sell, and TSSPDCL and TSNPDCL shall purchase, the entire Declared Capacity and all Net Electrical energy generated by the Unit / Project from the (2x600 MW) Power Project for the consideration set forth in this agreement.

The obligation of SCCL to sell capacity to the TSDISCOMs under this PPA shall, in each Settlement Period, be 80% of the declared capacity of the Unit / Project or to be revised as per TSERC tariff Regulations issued from time to time.

- (a) SCCL shall always inform, along with the Availability Declaration, the capacity committed to TSDISCOMs for each Settlement period.
- (b) **Net Electrical Energy:** Means the Energy Units actually delivered to TSSPDCL and TSNPDCL (TSDISCOMs) by SCCL pursuant to sale to TSDISCOMs of the capacity under Article 3 of this PPA, as computed at the Inter Connection Point, which point shall be the only point at which such Net Electrical Energy shall be computed under this Agreement.

3.3.1 Power Supplies by TSDISCOMS:

Upon SCCL's request, TSDISCOMS shall provide electrical energy to SCCL for construction, start-up and maintenance, and also for commissioning of the Project. TSDISCOMS shall furnish a bill to SCCL for such power at a price equal to TSDISCOMS's published tariff for construction power during the construction and start-up period up to the COD of the Project.

After COD of the Project, Tariff Bills presented by SCCL to TSDISCOMS shall be on a net energy basis taking into account the power supplied by TSDISCOMS to the Project.

3.4 *Dispatch Instructions (DI):*

- 3.4.1 At 10.00 hours every day, SCCL shall DIRECTLY provide Capacity Notice to the SLDC, denoting the Unit-wise Hourly MW Availability (00.00 - 24.00 hours) on day ahead basis. TSDISCOMS shall in turn intimate the same day by 16.00 hours the Generation Schedule to SCCL for the following day with respect to all the Units of the Project that have declared Capacity Notice.

3.4.2 SCCL shall follow the SLDC's directives, to back down, increase or resume generation, decrease generation at times on a day, provided that such directives are consistent with the technical limits of the facility, Prudent Utility Practices or in accordance with discharge functions of SLDC. Number of Dispatch Instructions per day shall not exceed two. The duration of back down and quantum of energy backed down each day shall be reconciled and certified by both SCCL (at Station level) and SLDC on monthly basis.

3.4.3 Nothing contained in this Agreement shall be construed to require SCCL to operate the facility, at any time, including emergency, inconsistent with Prudent Utility Practices and the Technical Limits in any manner.

3.4.4 Backing down limits of units:

For Singareni thermal Power Project, TSDISCOMs capacity shall not be backed down more than the limit of 35.00% of 1200 MW capacity allocated to TSDISCOMs.

In absence of any dispatch instructions from TSTRANSCO, the Units will operate according to the day ahead capacity notice furnished by SCCL.

Article 4: GENERATION TARIFF

4.1 Terms and Conditions

4.1.1 The tariff for the electricity supplied from the Project would be as determined under the tariff regulations of TSERC and tariff order thereof from time to time

4.1.2 Tariff for sale of electricity from the Project would be based on prevailing TSERC Regulations time to time.

4.2 **Capacity Charges (Fixed Charges):** SCCL shall claim the Annual Fixed Charges as approved by TSERC for each Tariff Year. The Annual Fixed Charges shall be computed as per TSERC norms and regulations and shall comprise of the following

- a) Return on capital employed (RoCE)
- b) Depreciation
- c) O&M expenses
- d) Taxes on Income as per actuals

4.2.1 **Capital Cost:** The capital cost of the Project shall be taken as Rs.8250.00 crores (provisional) as per Annexure-I.

4.2.2 **The Operation & Maintenance Charges:** The Operation & Maintenance and Insurance Expenses (O&M) for 600 MW sets would be as per the latest norms or regulations issued by TSERC.

4.2.3 **Interest on Working Capital:** Interest on Working Capital shall be calculated as per TSERC norms / regulations from time to time.

4.2.4 **Debt-Equity ratio:** The debt-equity ratio as on the date of Commercial operation shall be taken as 70:30 for determination of tariff irrespective of the actual quantum of debt and equity.

4.2.5 **Recovery of Fixed Charges:**

- (a) Annual Fixed Charges shall be computed for 100% after the Unit is declared for commercial operation date.
- (b) When the actual Capital Cost of project is finalized, the amount of any over payment or under payment relative to the Approved Capital Cost shall be refunded or paid (as the case may be) in twelve equal payments at the time of the payment of the next twelve monthly bills for Tariff payments after such finalization.

- (c) Target availability of the unit for recovery of full fixed charges shall be 80%.
- (d) One-twelfth of the full “Annual Fixed Charges”, computed pursuant to this Article 4 shall be claimed through the “Monthly Bill”, on every Recovery month of a Financial Year.

SCCL shall receive full Annual Fixed Charges if Availability in the Tariff Period or Tariff Year is not less than 80%. If Availability is less than 80%, Fixed Charges shall be allowed on pro-rata basis.

4.2.6 **Deemed Generation:** Stoppage of generation due to problems in Power evacuation for Generating stations shall be treated as Deemed Generation for the purpose of computation of availability for payment of fixed charges. In case of shortage of fuel, TSSPDCL, TSNPDCL and SCCL will decide and finalise in consultation with Coal Companies at that time.

4.3 **Variable Charge:** For any Billing Month, the Variable Charge component of the Tariff (comprising cost of Coal and Secondary Fuel Oil) shall be determined as per annexure-III

Variable Charges consists of cost of coal & oil. Landed cost of coal and oil shall include Transit and handling charges, royalty on coal, taxes, duties as applicable. Transportation cost by rail/road or any other means and energy charges shall be arrived after considering transit & Windage losses as given in Annexure-IV. Variable charges shall be paid based on the computation as per Annexure-III. Variations, if any, in delivered cost of coal & oil consequent to raising of initial bill shall be adjusted. For claiming such revision, SCCL will raise supplementary Bills.

4.4 **Operating parameters:** The values of Operating parameters like Station Heat Rate, Auxiliary power consumption and specific consumption of secondary fuel oil for the duration of the PPA shall be as per prevailing TSERC Regulations from time to time.

4.5 **Incentive:**

- (a) Target plant load factor for incentive shall be 80%.
- (b) Incentive shall be payable at a flat rate of 25 paisa/kwh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to target Plant Load Factor.

- 4.6 **General:** Any changes in TSERC regulations that may occur in future shall be applicable for all operating norms or any other parameters. For anything not covered in this agreement, TSERC regulations will be applicable.
- 4.7 **Commercial Operation Date or COD:** COD in relation to a generating unit means, the date declared by the generating company after demonstrating the maximum continuous rating (MCR) or the installing capacity (IC) through a successful trial run after notice to the beneficiaries, and in relation to the generating station means, the date of commercial operation of the last unit.

Article 5: TAXES, LEVIES, DUTIES, ROYALTY, CESS ETC

- 5.1 **Levies, Taxes, Duties, Cess:**The above Tariff is exclusive of any statutory taxes, levies, duties, cess or any other kind of imposition (s) whatsoever imposed/charged by any Government (Central/State) and/ or any other local bodies/authorities on generation of electricity including auxiliary consumption or any other type of consumption including water, transmission, environment protection, sale or on supply of power/ energy and / or in respect of any of its installations associated with Generating Stations and/or on Transmission System.
- 5.2 The total amount of such levies/taxes/ duties/ cess etc. payable by SCCL to the authorities concerned in any month on account of the said levies/taxes/duties/cess etc. as referred to above shall be borne and additionally paid by TSSPDCL and TSNPDCL to SCCL.
- 5.3 Incidence of income tax liability on project income limited to the extent of RoE as per the provisions of the Income Tax Act applicable from time to time shall be recovered from TSSPDCL and TSNPDCL duly certified by Statutory Auditors of SCCL.
- 5.4 **Income Tax:** Incidence of tax liability on SCCL as per Income Tax Act in force from time to time shall be payable in addition to the amount as per the Tariff Bill by TSSPDCL and TSNPDCL duly certified by the Auditors of SCCL. However the tax payable on project income exceeding the Return on Equity will not be charged to TSSPDCL and TSNPDCL. If any advance income tax is payable by SCCL in any month, SCCL shall submit a bill to TSSPDCL and TSNPDCL supported by a certificate of its chartered accountant at least 20 (twenty) days before the due date of such payment. TSSPDCL and TSNPDCL shall pay to SCCL an amount equal to such advance tax within ten (10) days from the receipt of such Bill. After the tax assessment is completed for any year, if any, balance tax amount is payable by SCCL, TSSPDCL and TSNPDCL shall pay such balance tax within 15 days of demand by SCCL. In case the tax authority refunds any amounts to SCCL including interest thereon, SCCL shall promptly make an appropriate refund to TSSPDCL and TSNPDCL.
- 5.5 Income Tax applicable for the sale of power under this agreement shall be governed by the applicable TSERC regulations and the parties agree to abide by and comply such regulations.

Article 6: BILLING AND PAYMENT

6.1 Billing:

- 6.1.1 All charges for supply of Electricity under this Agreement shall be billed by SCCL as determined time to time by the TSERC and/ or any other Competent Authority and the same shall be paid by TSSPDCL and TSNPDCL in accordance with the following provisions:
- 6.1.2 SCCL shall present the bills for electricity supplied to TSSPDCL and TSNPDCL from the Project for the previous month based on Energy Account issued by Telangana State Load Dispatch Centre or any other Competent Authority as per TSERC regulations applicable from time to time.
- 6.1.3 Billing Centre of SCCL shall carry out billing and associated functions. SCCL would submit the bills to the officer to be nominated by TSSPDCL and TSNPDCL
- 6.1.4 The Monthly Bill for the Project shall include the Charges for Supply of Electricity under this Agreement, taxes, duties, cess etc including additional bills for the past period (s) on account of orders of TESERC/ Appellate Tribunal for Electricity/ Other Courts/ Other Competent Authority (ies). If for certain reasons some of the charges which otherwise are in accordance with this Agreement, cannot be included in the main Monthly Bills, such charges shall be billed as soon as possible through Supplementary Bill(s).
- 6.1.5 TSSPDCL and TSNPDCL shall arrange payment of such Monthly Bill (s) / Supplementary Bill (s) promptly through irrevocable Letter of Credit at the designated account of SCCL or through RTGS. The date of transfer of payment to SCCL account shall be considered as the date of payment for computation of rebate or late payment of surcharge in respect of such payment. The bill (s) of SCCL shall be paid in full subject to the condition that -
 - i. there is no apparent arithmetical error in the bill (s)
 - ii. the bill (s) is /are claimed as per the notified / agreed tariff
 - iii. they are in accordance with energy accounts issued by Telangana State Load Dispatch Centre or any other Competent Authority as per TSERC regulations applicable from time to time.

6.1.6 All payments made by TSSPDCL and TSNPDCL shall be appropriated by SCCL for amounts due from TSSPDCL and TSNPDCL in the following order of priority:

- i. towards Late Payment Surcharge, payable if any
- ii. towards earlier unpaid bill (s) if any; and
- iii. towards the statutory dues like, other tax, royalty etc in the current bill (s).

6.1.7 In case TSSPDCL and / or TSNPDCL dispute any amount, even then, it shall pay 95% of the disputed amount forthwith and file a written objection with SCCL within 30 days of presentation of the bill, giving following particulars:

- i. Item disputed, with full details / data and reasons of dispute
- ii. Amount disputed against each item

Provided that non acceptance of tariffs determined / approved by TSERC shall not be a valid ground for dispute

6.1.8 The amount of excess / shortfall with respect to the said 95% payment based on finally determined amount in line with Article 6 shall be paid / adjusted with the applicable interest @ 15% per annum from the date on which the amount in dispute was payable / refundable

6.1.9 **Monthly Bill:** On or before each Billing Date, SCCL shall submit to TSSPDCL and TSNPDCL a Monthly Bill based on (a) meter reading (taken pursuant to Article 7) that has either been signed by both Parties or certified by SCCL with respect to TSSPDCL and TSNPDCL'S' refusal to sign within five days of the Metering Date and (b) the Tariff, which will set out the monthly Fixed Charges and the monthly Variable Charges with respect to the Project covered under this Agreement.

6.1.10 Each Monthly Bill for a Billing Month shall be payable by TSSPDCL and/or TSNPDCL in accordance with this Agreement on or before the Due Date of Payment., which will be the date 30 days from the date of presentation of the Tariff Bill to the Designated Officer of TSSPDCL and TSNPDCL.

- 6.2 Supplementary Bills:** Any amount due to SCCL by TSSPDCL and/ or TSNPDCL under this Agreement other than amounts set out in a monthly Tariff Bill shall be payable within thirty (30) days after presentation of Supplementary Bill(s) by SCCL to TSSPDCL and /or TSNPDCL. This will include, but not be limited to the following:
- i. Claims for Income Tax.
 - ii. Claims for increased costs, if any
 - iii. Statutory Duties, Taxes, Cess, Levies, fee, Royalty, etc.
 - iv. Monthly Tariff Adjustments
 - v. Water charges, NALA charges, etc.
 - vi. Any claims of Central/State/Local authorities/Bodies, etc.
 - vii. Any other claim admissible under this Agreement.
- 6.3 Payment mechanism:** The bills shall be presented to the Designated Officer of TSSPDCL and TSNPDCL for payments. Payments by TSSPDCL and TSNPDCL for such bills raised by SCCL shall be made within 60 days through revolving Letter of Credit (LC) or through RTGS. LC is to be opened in favour of SCCL to cover one month receivables valid for the term of the PPA. All LC charges shall be to TSSPDCL and TSNPDCL account. Escrow to cover one month receivables valid for the tenure of the PPA as per the procedure indicated in the Annexure-V.
- 6.3.1 Rebate on payment through LC:** For payment of bills through a letter of credit or through RTGS on presentation, the SCCL and TSSPDCL and TSNPDCL agreed to a maximum rebate of 2 percent of the bill amount. If the payments are made within one week of presentation of the bill, the SCCL and TSSPDCL and TSNPDCL agreed to a maximum rebate of 1.25 percent of the bill amount as per TSERC regulations applicable from time to time.
- 6.3.2 Surcharge Due on Late Payment:** In case the payment by TSSPDCL and TSNPDCL is delayed beyond a period of 60 days from the date of billing, late payment surcharge at the rate of 1.25% per month or part thereof shall be levied by SCCL to TSSPDCL and TSNPDCL
- 6.3.3** Rebate and Late payment surcharge shall be as per terms and conditions of tariff issued by TSERC as applicable from time to time. No rebate shall be payable on the bills raised on account of taxes, duties, royalty/ cess etc

Article 7: METERING

- 7.1 The interface meters, viz. Main and Standby meters, of 0.2S accuracy class shall be installed and maintained by SCCL in coordination with TSTRANSCO, TSDISCOMS as per Central Electricity Authority (Installation and operation of meters) Regulations 2006 as amended from time to time (or) as notified by TSERC and Check meter of 0.2S accuracy class shall be installed and maintained by TSDISCOMS. Cost of the main meter, standby meter and charge for all types of testing and calibration will be borne by SCCL and those of check meter by TSSPDCL and TSNPDCL.
- 7.2 The main and check meters shall be installed on outgoing feeders and the Standby meters on HV side of Generator Transformers and Station Auxiliary Transformers.
- 7.3 The interface meters and the associated CTs and VTs/CVTs shall be got tested for FACTORY ACCEPTANCE TESTS as per relevant IS/IEC and for ACCURACY at an NABL accredited laboratory in presence of representatives of TSTRANSCO and TS DISCOMS for ensuring their healthiness and accuracy respectively.
- 7.4 The interface meters shall be tested at the time of installation at site for accuracy using standard reference meter of better accuracy class than the meter under test.
- 7.5 All the interface meters shall be sealed by SCCL and TS DISCOMS. Whenever seals have to be removed for any reason, advance notice shall be given to other party for witnessing the removal of seals and resealing. The breaking and resealing of the meters shall be recorded by the party, who carried out the work, in the meter register, mentioning the date of removal and resealing, serial numbers of the broken and new seals and the reason for removal of seals.
- 7.6 **Half yearly Checks:** All the interface meters shall be checked for accuracy half yearly by TS DISCOMS and shall be treated as working satisfactorily so long as the errors are within the limits prescribed for meters of the specific class. SCCL shall extend required coordination and attend for the check test.
- 7.7 **Yearly Test for Accuracy:** SCCL shall get the main and stand by interface meters tested at an NABL accredited laboratory once in every year in the presence of representatives of both TSTRANSCO and TS DISCOMS. TSDISCOMS shall get the check interface meters tested at an

NABL accredited laboratory once in every year in the presence of representatives of both TSTRANSCO and SCCL.

- 7.8 SCCL shall install AMR modules for the interface meters to enable online transmission of meters' data to TSTRANSCO/TSDISCOMS.
- 7.9 SCCL shall provide Data Acquisition System ("DAS") facility compatible with TSLDC's Supervisory Control and Data Acquisition ("SCADA") system in consultation with TSLDC for transfer of real time data to SLDC as per IEGC 2010.
- 7.10 Monthly meter readings of main, check and standby meters shall be jointly taken (and a joint acknowledgement thereof signed) by the authorised representatives of SCCL, TSTRANSCO, and TSDISCOMS at an agreed time on each Metering Date and also the load survey data shall be downloaded through MRI. Whenever difference between the readings of main meter and check meter for any month is more than the limit specified in CEA metering regulations 2006, as amended from time to time, corrective measures shall be taken as mentioned therein. Whenever difference between the readings of main meter and standby meters for any month is more than 1.2%, procedure prescribed as in case of main & check meters shall be followed.
- 7.11 Readings of the main meter shall form the basis of billing. In case of failure of main meter or if the error of main meter is beyond the permissible limits, billing for the month shall be done on the basis of the readings of check meter and the main meter shall be replaced immediately. In case of failure of both main meter and check meter billing for the month shall be done based on the readings of standby meters and the main and check meters shall be replaced immediately.

Article 8: CHANGE IN LAW

- 8.1 Change in law:** In the event of any new law, regulation or tax or in the event of any change, amendment, modification or repeal of any law, regulation or tax (including without limitation, any withholding taxes, cess, duties, environmental taxes, sales taxes, property taxes, import fees or assessments) of any Government Authority after the date of effectiveness of this agreement, detrimentally or beneficially affects SCCL, then SCCL shall send a notice in writing to TSSPDCL and TSNPDCL regarding such an event and both parties shall meet and endeavour to agree to an amendment to this agreement to pass on the impact of such an event to TSSPDCL and TSNPDCL, which shall be settled through supplementary invoice. If within 90(ninety) days after such notification, the parties are unable to reach agreement on such amendment, or in the event that an agreement to amend has been reached but no amendment has been executed within 30 (thirty) days after reaching of such agreement to amend, either party shall have the right to commence the dispute resolution procedures set forth in Article 12 to determine the appropriate amendment to this agreement.

Article 9: IMPLEMENTATION OF THE AGREEMENT

- 9.1** All discretions to be exercised and directions, approvals, consents and notices to be given and actions to be taken under these provisions unless otherwise expressly provided herein, shall be exercised and given by the signatories to this Agreement or by the authorized representative(s) that each Party may nominate in this behalf and notify in writing to the other Party by Registered Post with Acknowledgement due. Any other nomination of authorized representative (s) shall be informed likewise in writing to / by TSSPDCL and TSNPDCL within one month of signing of the Agreement. Notwithstanding any nomination, the Chairman & Managing Director / SCCL or his authorized representatives at its Registered Office shall be authorized to act for and on behalf of SCCL.

Article 10: DURATION OF THE AGREEMENT

10.1 The Agreement shall come into effect for all purposes and intent from the date of signing of the Agreement.

Subject to the establishment and continuance of payment security as envisaged under Annexure V to the satisfaction of SCCL, Agreement shall remain operative up to completion of twenty five (25) years from the date of commercial operation of last unit of the Project, unless it is specifically extended on mutually agreed terms.

This Agreement may be extended, renewed, amended or replaced by another Agreement, on or before the expiry of this agreement, on such terms and for such further period of time as the Parties may mutually agree subject to prior consent of Telangana State Electricity Regulatory Commission (TSERC).

Article 11: FORCE MAJEURE

11.1 No party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the Agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. Generation/drawal of power shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.

The Generator is entitled to claim only fixed charges and cannot claim any consequent losses during Force Majeure Period

Article 12: ARBITRATION

- 12.1** All differences or disputes between the parties arising out of or in connection with this Agreement shall be endeavoured to be settled amicably through negotiation between the Chief Executives of the respective parties within 90 days, failing which shall be settled through arbitration as provided herein.

In the event of any such differences or disputes between the parties, any party may by a written notice of 30 days to the other party request Telangana State Electricity Regulatory commission (TSERC) to settle such disputes. The same shall be dealt as per the provisions of Electricity Act 2003. The place of Arbitration shall be at Hyderabad.

Article 13: GENERAL

- 13.1** Agreement final and complete: This Agreement contains the full and complete understanding between the parties and supersedes all prior arrangements and understandings whether written or oral appertaining to the subject matter of this Agreement and may not be varied except by an instrument in writing signed by all of the parties to this Agreement. No representations or promises not expressly contained in this Agreement have any effect of modifying this Agreement.
- 13.2** **Waiver:** If any provision of this Agreement shall be adjudged by a court to be unlawful void or unenforceable such provision shall to the extent required be severed from this Agreement and rendered ineffective as far as possible without modifying the remaining provisions of this Agreement and shall not in any way affect any other circumstances or the validity or enforcement of this Agreement.

No failure or delay on the part of the parties to this Agreement relating to the exercise of any right power privilege or remedy provided under this Agreement shall operate as a waiver of such right power privilege or remedy or as a waiver of any preceding or succeeding breach by the other party to this Agreement nor shall any single or partial exercise of any right power privilege or remedy preclude any other or further exercise of such or any other right power privilege or remedy provided in this Agreement all of which are several and cumulative and are not

exclusive of each other or of any other rights or remedies otherwise available to a party at law or in equity.

- 13.3 Circumstances not covered in this Agreement:** The parties acknowledge and accept that it has not been possible to envisage all the circumstances that may arise in the course of the dealings between the parties and therefore it has not been possible to provide for all such eventualities. In the course of the implementation of the Agreement the parties may be faced with matters which have not been expressly dealt with in this Agreement.

The parties shall discuss and find an appropriate solution to such matters amicably and parties shall act on best endeavour basis keeping in view the interest of both the parties. If the parties are unable to arrive at a settlement, the matter shall be referred to arbitration in accordance with Article 12 and the decision of the arbitrator(s) shall be final and binding on the parties.

ARTICLE 14: NOTICE

- 14.1** All notices required or referred to under this Agreement shall be in writing and signed by the respective authorized signatories of the Parties mentioned herein above, unless otherwise notified. Each such notice shall be deemed to have been duly given to the other Party if delivered or served by Registered Post/Speed Post or by any other mode with an acknowledgement in terms of Article 9.

ARTICLE 15: ASSIGNMENT

- 15.1** In case the functions of TSSPDCL and TSNPDCL are reorganized and /or this Agreement is assigned to other organization (s) / agency (ies), party or wholly, the Agreement shall be binding mutatis mutandis upon the successor Distribution / Trading Organisation (s) / agency (ies) / entities and shall continue to remain valid with respect to the obligations of the successor organization (s) / agency (ies) is / are owned or controlled by the Government of Telangana.
- 15.2** In the event the functions of TSSPDCL and TSNPDCL are reorganized and / or privatized or this Agreement is assigned to Private Organisation (s) / agency (ies), partly or wholly, TSSPDCL and TSNPDCL shall ensure that the agreements namely 'Escrow Agreement' and 'Agreement to Hypothecate Cum Deed of Hypothecation' as mentioned at Annexure V under ESTABLISHMENT OF LETTER OF CREDIT (LC) AND PAYMENTT

SECURITY MECHANISM are signed by the assignee before assignment of this Agreement.

- 15.3 Only such of the successor entities who fulfill the above requirements and execute the requisite documents as above shall be termed as the permitted assigns
- 15.4 In other cases, SCCL shall have the right to terminate this Agreement. In the event of termination of this Agreement, TSSPDCL and TSNPDCL shall be liable and continue to pay the Capacity Charges each month till firm arrangement for sale of TSSPDCL's and /or TSNPDCL'S share with alternate customers substituting the TSSPDCL and TSNPDCL is tied up.
- 15.5 For the purpose of obtaining financing for the Project, SCCL may assign or create security over its rights and interests under or pursuant to this Agreement to any one or all the lenders of this Project.

IN WITNESS WHEREOF THE PARTIES HAVE SIGNED THIS AGREEMENT ON THE DAY, MONTH AND YEAR FIRST WRITTEN ABOVE.

For and on behalf of
**THE SINGARENI COLLIERIES COMPANY
LIMITED**

For and on behalf of
TSDISCOMS

1.

TSSPDCL

2.

TSNPDCL

In the presence of

In the presence of

1.

1.

ANNEXURE-1

SINGARENI THERMAL POWER PROJECT (2X600MW)		
DETAILS OF PROJECT COST		
Sl.No	Description	Rs. Crores
1	Total BTG Package	3681.22
2	Total Cost of BoP	916.01
3	Total Cost of SCCL Scope Works	1002.48
4	Erection, Testing and Commissioning including insurance	
4.1	BTG	439.74
4.2	BoP	154.00
5	Taxes, Duties, Freight & Insurance	860.05
6	Contingencies	38.00
7	Establishment Costs	55.00
8	Consultancy & Engineering	127.00
9	Start up Fuel	40.00
10	Operator training	1.50
11	Financing Expenses	10.00
12	Interest During Construction	925.00
	Total Cost	8250.00

ANNEXURE-II

COMMISSIONING & TESTING

1. Commissioning and Testing

1.1 Guidelines

The commissioning of the Project will require satisfactory performance of a number of tests prescribed to demonstrate conformance with regulatory requirements.

An Installed Capacity Test shall be carried out during the Reliability Run as defined in the "Tests on Completion" in the EPC Contract entered into, or to be entered into, by SCCL for the purposes of the Project.

SCCL shall give TSSPDCL and TSNPDCL at least fifteen (15) days prior written notice of the date on which the Installed Capacity Test will commence.

SCCL, TSSPDCL and TSNPDCL shall designate representatives to witness and observe the test. The Generating Unit shall be operated within the manufacturer's specified limits and in accordance with Prudent Utility Practices for the duration of the test.

1.2 Test Conditions - General Considerations

The Installed Capacity Test shall be designed and carried out in accordance with standard ASME PTC 6 - Turbo-Generators.

- (i) The Installed Capacity Test will be run under any and all ambient conditions (temperature, humidity etc) that may exist during the time of the Installed Capacity Test, and no corrections in final generator gross output will be allowed as a result of prevailing ambient conditions.
- (ii) The fuel will be within the range of the fuel specification in the Coal Supply Agreement (CSA). In addition, the ability of the Power Station to meet rated capacity with fuel of the lowest quality permitted under the CSA will be demonstrated.
- (iii) Correction curves will be used if Grid operation during the Installed Capacity Test exceeds the Grid Technical Limits.

- (iv) The Installed Capacity Test shall be deemed to have demonstrated the gross generation capacity of the Generating Unit under all design conditions and therefore no adjustments shall be made on account of fuel quality or ambient conditions.
- (v) Electrical system Characteristics Test shall demonstrate the Project's ability to operate within the limits of the electrical system characteristics. Electrical system characteristics compliance shall be deemed to be achieved in case of:
 - (a) Voltage provided the Project operates within the nominal voltage levels of the Grid for the duration of the Installed Capacity Test. If during the test, voltage tests cannot be performed due to Grid constraints, data supplied from tests of the generator step-up transformers and generator supplied by the manufacturers shall be used to establish the ability of the Project to operate within the specified voltage limits.
 - (b) Grid frequency provided the Project operates within the nominal frequency levels for the duration of the Installed Capacity Test.
 - (c) Power factor, provided the Project operates within the power factor range for the duration of the Installed Capacity Test. If, during the Installed Capacity Test, power factor tests cannot be performed due to Grid constraints, data supplied from tests of the generators and the generator step-up transformers supplied by the manufacturers shall be used to establish the ability of the Project to operate within the specified voltage limits.

Electrical output shall be measured at the generator terminals using test class instruments with an overall measurement uncertainty of $\pm 0.5\%$ (utilizing meters of class 0.2S accuracy) as per ASME PTC 19.1. The metering system shall be capable of measuring instantaneous output (MW), hourly average power (MW) and the integrated energy over the relevant test period (MWh).

The generating Unit shall not be treated as passing its Installed Capacity Test unless it has demonstrated an Installed Capacity of at least equal to 540 MW.

1.3 Installed Capacity Test

For each generating Unit, Installed Capacity Test shall be carried out at maximum continuous rating over a continuous period of seventy-two (72) hours for determination of installed capacity of the unit. Provided that if any Generating Unit's Installed Capacity is determined to be higher than 600 MW, including if any permitted retest shall result in such Generating Unit's Installed Capacity being higher than 600 MW, then the Installed Capacity of such Generating Unit shall be limited to 600 MW and shall apply for the purpose of calculation of PLF.

A Generating Unit shall not be rejected by TSDISCOMs on the grounds of the installed Capacity test being demonstrated, at less than 540 MW inspite of the best efforts made by SCCL.

1.4 Test Results

1.4.1 Within five (5) Days after the conclusion of the Installed Capacity Test SCCL shall submit a written report to TSSPDCL and TSNPDCL which shall contain:

- (i) details of the results of the tests including sufficient data to demonstrate that all requirements of the Installed Capacity Test and the Electrical System Test have been met;
- (ii) if a Generating Unit has passed the Installed Capacity Test for the purposes of COD, the date and time for commencement of Commercial Operation for each of such Generating Units for the purposes of this Agreement.

1.4.2 If TSSPDCL and / or TSNPDCL dispute any or all of the results contained in the report provided by SCCL pursuant to paragraph 1.4.1 above then TSSPDCL and / or TSNPDCL shall initiate the Informal Dispute and Arbitration detailed in Article 12 of this Agreement.

1.4.3 Energy generated during testing and commissioning: At all times after the Scheduled Date of Synchronisation of each Generating Unit, TSSPDCL and TSNPDCL shall accept all electrical output produced by such Generating Unit during start-up, commissioning and testing performed pursuant to Article 3 of this Agreement.

ANNEXURE - III

COMPUTATION OF VARIABLE CHARGES

Variable Charge = $V_C * E$

$$V_C = \frac{100 \{ P_p \times (Q_p)n + P_s \times (Q_s)n \}}{(100 - (AUXn))}$$

Where,

- P_p = Landed cost of primary fuel namely coal or lignite or gas or liquid fuel in Rs/Kg or Rs/cubic-metre (m^3) or Rs./litre, as the case may be
- $(Q_p)n$ = Quantity of primary fuel required for generation of one kWh of electricity at generator terminals in Kg or litre or m^3 , as the case may be, and shall be computed on the basis of normative Gross Station Heat Rate (less heat contributed by secondary fuel oil for coal/lignite based generating stations) and gross calorific value of coal/lignite or gas or liquid fuel as fired.
- P_s = Landed cost of Secondary fuel oil in Rs./ml
- $(Q_s)n$ = Normative Quantity of Secondary fuel oil in ml/kWh as per TSERC norms, and
- $AUXn$ = Normative Auxiliary Energy Consumption as percentage of gross generation

The monthly Variable Charge to be shown in the Monthly Thermal energy Bill will be the aggregate of the Variable Charge calculated for each of the Thermal Power Stations, i.e.,
Monthly Variable Charge in Thermal Tariff Bill

$$= V_C * E$$

Where

V_C = Variable Charge per unit calculated pursuant to this article.

E = Net Electrical Energy in kWh delivered at the Interconnecting point.

ANNEXURE-IV

COMPUTATION OF DELIVERED COST OF COAL - THERMAL PLANTS

1. **Weight of Coal:** In terms of the then APERC's Order dt. 24.03.03 (Para 122), the cost of coal lost in transit, windage & shrinkage etc., needs to be factored into the Variable charge since SCCL has little control over such loss. Thus the weight of coal received for each Thermal Power Station for the purpose of calculating Weighted Average Delivered Cost of Coal will be the actual weight of coal received at the Thermal Power Station, i.e., it will be the weight of coal supplied by the supplier reduced by the quantity lost in transit, windage & shrinkage, etc. This loss shall however be limited to 0.2% or actual whichever is less.

2. **Cost of Coal:** Total Cost of Coal* delivered at each Thermal Power Station shall constitute the price paid to the coal supplier, all incidental duties and taxes paid to the State or Central Government and cost of optimal transportation.
* Cost of coal means at which Coal is transported and priced for respective grades as per SCCL's Coal Marketing Department.

3. **Weighted Average Delivered Cost of Coal:**
The cost of coal for the computation of Variable Charges will be the weighted average delivered cost of coal. For the purpose of the weighted average, cost of coal received will be the total cost of coal calculated as per clause 2 above divided by the quantity of coal delivered at the Thermal PowerStation (in Rs. Per metric tonne), as per Clause 1 above.

Example:

Opening Stock at KTPS = 100 metric tonne

Opening Weighted average cost of coal=Rs.920 per metric tonne

Let quantity of Coal supplied by Mahanadi Coal Fields Ltd to KTPS = 100 metric tonnes

Cost of Coal:

Basic Cost = Rs. 70,000

Royalty = Rs. 500

CST = Rs.280

Freight = Rs. 23,000

Total Cost = Rs. 93780

Coal Lost in Transit, Windage & Shrinkage = 0.8 metric tonne

Coal delivered at KTPS = 99.2 metric tonne

Closing Weighted Average cost of coal

= $[\text{Cost of Coal received} + (\text{Op Stock} * \text{Op Weighted Average Cost/Tonne})] / [\text{Op Stock} + \text{Coal delivered \#}]$

= $\text{Rs. } 93,780 + (\text{Rs. } 920 * 100) / [100 + 99.2] = \text{Rs. } 933 \text{ per metric tonne.}$

The cost to be taken for the purpose of Variable Cost is Rs. 933 per Tonne
#considering transit loss, windage & shrinkage etc.

ANNEXURE-V

ESTABLISHMENT OF LETTER OF CREDIT (LC) AND PAYMENT SECURITY MECHANISM

- 1.0 TSSPDCL and TSNPDCL shall establish an irrevocable revolving letters of Credit (LC) in favour of SCCL with any public sector / scheduled commercial bank (as per list supported by SCCL) at least one month prior to the commencement of electricity supply from the first unit of the Project
- 2.0 The LC shall cover 105% of the month's estimated billing in respect of electricity supplied from the Project to TSSPDCL and TSNPDCL.
- 3.0 The amount of LC shall be reviewed on half yearly basis on 1st April and 1st October in each financial year on the basis of the average of billing of previous 12 months
- 4.0 The LCs shall be established for a minimum period of one year. TSSPDCL and TSNPDCL shall ensure that a valid LC is made available at all times during the entire/extended validity of this agreement. New LCs shall be furnished / existing LCs reinstated not later than 30 days prior to the expiry of existing LCs
- 5.0 LC shall specify the manner and dates when bill (s) can be presented to Bank by SCCL. The bills so presented by SCCL to the bank shall be promptly paid on their presentation. The LC charges shall be borne by TSSPDCL and TSNPDCL respectively for their LCs
- 6.0 All costs relating to opening and maintenance and negotiation of LC shall be borne by TSSPDCL and TSNPDCL respectively
- 7.0 In case of drawal of the LC amount by SCCL in accordance with the terms of this Article, the amount of LC shall be reinstated automatically not later than 7 days from such drawal. TSSPDCL and TSNPDCL shall arrange to furnish to SCCL a certificate to this effect from Bank (s) providing LC. In the event LC is not reinstated within 7 days, regulation of power supply to the extent of 2.5% of the Contracted Capacity will start with immediate effect from 00 hrs on 8th day. SCCL will have right to divert 2.5% of the contracted capacity to Third Party (ies) and or reduce the schedule of TSSPDCL and / or TSNPDCL by the same quantum whoever fails.

Provided that TSSPDCL and / or TSNPDCL shall continue to be liable to pay the Capacity Charges in proportion to its contracted capacity during the period of regulation / diversion of capacity or till the capacity is re-allocated to other Bulk Power Customer (s) / Third Party (ies).

- 8.0 In addition to above, TSSPDCL and TSNPDCL hereby agrees separately to provide an alternative payment security arrangement in the form of Escrow Arrangement as a back up to the Letters of Credit. Under this arrangement an Escrow Account in favour of SCCL shall be established through which the receivables of TSSPDCL and TSNPDCL shall be routed as per the terms of Escrow Agreement. TSSPDCL and TSNPDCL hereby agrees that SCCL will have first charge on Receivable of TSSPDCL and TSNPDCL. However, such first charge shall be on the amounts, in excess of amounts, which have already been charged or agreed to be charged prior to the date of execution of this Agreement and as listed in the schedule enclosed with this Agreement. TSSPDCL and TSNPDCL agreed to enter into a separate 'Agreement to Hypothecate Cum Deed of Hypothecation' whereby, TSSPDCL and TSNPDCL shall hypothecate Receivables to the extent required for Payment of dues of SCCL by TSSPDCL and TSNPDCL including under this Agreement by creation of first charge in favour of SCCL. These Receivable shall be routed through Escrow Account for payment to SCCL in case of default in payments by TSSPDCL and / or TSNPDCL. "Receivables" for this purpose shall mean all of the present and future payments, receipts, obligations, monies, claims, bills and any other property whatsoever which may from time to time be derived from or accrue or be offered or due to the TSSPDCL and TSNPDCL in respect of the sale by the TSSPDCL and / or TSNPDCL to the consumers of electric capacity, energy and /or services or for any other reason whatsoever and all proceeds thereof.
- 9.0 The Escrow Agreement and Agreement to Hypothecate Cum Deed of Hypothecation shall be established by TSSPDCL and TSNPDCL to the satisfaction of SCCL within 60 days of entering into this Agreement. In the event, TSSPDCL and TSNPDCL does not sign the 'Escrow Agreement' and 'Agreement to Hypothecate Cum Deed of Hypothecation' within the said period or TSSPDCL and TSNPDCL creating any superior charge in favour of any other party on its Receivable, SCCL shall have the right to reallocate contracted capacity of TSSPDCL and/or TSNPDCL to Third Party (ies). In case of termination of this Agreement or reallocation of capacity due to reasons stated above, TSSPDCL and TSNPDCL shall be liable to pay capacity charges for such capacity till the capacity is reallocated.

TSSPDCL, TSNPDCL and SCCL agree that this Agreement shall be deemed to have created a legally binding first charge on TSSPDCL'S and TSNPDCL'S Receivables in favour of SCCL. Accordingly, TSSPDCL and TSNPDCL shall not create any encumbrance, charge and lien or otherwise execute any instrument which in any way affects the first charge over the Receivables. While creating any subsequent charge on its Receivables or agreeing to provide Escrow cover or any other form or payment security to any other entities like electricity supplier(s), banks, financial institutions etc. during the interim period till signing of Escrow Agreement with SCCL, TSSPDCL and TSNPDCL shall duly inform such electricity supplier (s), banks, financial institutions etc of the legally binding first charge on TSSPDCL'S and TSNPDCL'S Receivables in favour of SCCL and the first charge of SCCL shall be in preference to any other charge that TSSPDCL and TSNPDCL may create in favour of any other party.

TSSPDCL and TSNPDCL agree to ensure that the successor entities of TSSPDCL and TSNPDCL are duly notified of the above arrangement with SCCL and shall be bound by the terms of this Agreement as if they are parties of this Agreement.

- 10.0 Notwithstanding the obligations of TSSPDCL and TSNPDCL to pay all the dues as per this Agreement, in the event of non-payment of bills within a period of 60 days from date of billing or default in opening of LC of requisite amount in favour of SCCL by TSSPDCL and TSNPDCL separately, SCCL shall be entitled to regulate / divert the contracted capacity of TSSPDCL and / or TSNPDCL to any other Bulk Power Customer (s) / Third Party (ies) as per the provisions of generic procedure for regulation of power supply issued by TSERC.

In case of default in payment of bills beyond a period of 90 days of billing by TSSPDCL or TSNPDCL, SCCL shall have the right to re-allocate TSSPDCL'S or TSNPDCL'S power to other Bulk Power Customers (s).

It is clarified that the above arrangement shall not be construed as relieving TSSPDCL and TSNPDCL of any of its obligations to SCCL including obligation of payment of Capacity Charges

For the removal of any doubt it is clarified that in case of default, TSSPDCL and TSNPDCL shall continue to be liable to pay the Capacity Charges in proportion to their contracted Capacity during the period of regulation / diversion of capacity or till the capacity is re-allocated to other Bulk Power Customer (s) / Third Party (ies)