



Phone No:9248371455

POWER PURCHASE AGREEMENT

BETWEEN

NTPC LIMITED

AND

Andhra Pradesh Southern Power Distribution Company Ltd.(APSPDCL)

FOR

NP KUNTA ULTRA MEGA SOLAR

POWER PROJECT, Stage - I (250 MW)

THIS POWER PURCHASE AGREEMENT hereinafter called the "Agreement" entered into at Hyderabad on the 24th.....day of April, Two Thousand Fifteen (24/04/2015) between **NTPC Limited**, a Company incorporated under the Companies Act, 1956 having its registered office at NTPC Bhawan, Core 7, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi - 110003 (hereinafter called 'NTPC') which expression shall unless repugnant to the context or meaning thereof include its successors and assigns as party of the first part; and **Andhra Pradesh Southern Power Distribution Company Ltd** having its

श्री. वी. आनन्द / C. V. ANAND
जनरल मैनेजर (कॉमर्शियल)
एन.टी.पी.सी. लिमिटेड / NTPC Limited

[Handwritten signature]
24/4/15

Registered Office at Kesavayanagunta, Tiruchanoor Road, Tirupati, Andhra Pradesh 517501 (hereinafter called 'APSPDCL') which expression shall unless repugnant to the context or meaning thereof include its successors and Permitted Assigns as party of the second part. Each of the parties of the first and second above is individually referred to as a "Party" and collectively as the "Parties".

WHEREAS NTPC is a Generating Company as defined under Section 2(28) of the Electricity Act, 2003 and is a Govt. of India Enterprise.

AND WHEREAS NTPC and Govt. of State of Andhra Pradesh have signed Memorandum of Understanding (MOU) on 16th Sep'2014 to develop 1000 MW Solar power project(s) at suitable site(s) identified by GoAP in a phased manner.

AND WHEREAS NTPC is setting up a Solar energy project named as NP Kunta Ultra Mega Solar Power Project Stage - I at NP Kunta Ultra Mega Solar Park being developed by APSPCL, subject to techno economic feasibility (capacity of 250 MW) in Anantapur district, Andhra Pradesh (herein after referred to as ' NPKUMSPP'and generally referred to as 'Station')

AND WHEREAS NTPC has presently taken up setting up of NP Kunta Ultra Mega Solar Power Project Stage-I (hereinafter referred to as NPKUMSPP 'Stage-I') with a capacity of 250 Mwp, with subsequent expansion by setting up of 750 Mwp capacity in single or multiple stages.

AND WHEREAS the APSPDCL is desirous of purchasing electricity from NPKUMSPP Stage-I and NTPC is willing to sell electricity from NPKUMSPP Stage-I to APSPDCL on mutually agreed terms and conditions mentioned hereunder.

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

1.0 DEFINITIONS

1.1 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 CERC from time to time.




सा. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)




CHIEF GENERAL MANAGER

1.2 The words or expressions mentioned below shall have the meanings respectively as assigned hereunder:

- i) Agreement to Hypothecate cum Deed of Hypothecation Shall have the meaning as ascribed under Article 7.3.8 & 7.3.9
- ii) ACT Shall mean the Electricity Act, 2003 and include any modifications, amendments and substitutions from time to time.
- iii) Agreement Shall mean this Power Purchase agreement including the Articles, schedules, Amendments, modifications and supplements made in writing by the parties from time to time.
- iv) APDISCOMS Shall mean APSPDCL(Andhra Pradesh Southern Power Distribution Company Limited)
- v) APERC Shall mean Andhra Pradesh Electricity Regulatory Commission
- vi) Applicable interest rate Base rate of interest specified by the State Bank of India as on 1st April of the respective year plus 350 basis point
- vii) APTRANSCO Shall mean Transmission corporation of Andhra Pradesh incorporated under the company Act 1956
- viii) Billing Centre The office / RHQ as intimated by NTPC to APSPDCL from where the bills will be raised on them.
- ix) CEA Central Electricity Authority
- x) CERC Central Electricity Regulatory Commission
- xi) Charges for Supply of Electricity Mean and include all charges including the Tariff to be paid by APSPDCL in respect of supply of electricity to them from the Station in accordance with the provisions of this Agreement.
- xii) Change in Law shall have the meaning ascribed thereto in Article 10 of this Agreement;
- xiii) Competent Court of Law shall mean any court or tribunal or any similar judicial or quasi-judicial body in India that has jurisdiction to adjudicate upon issues relating to this Agreement;



सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC Limited


CHIEF GENERAL MANAGER
P&M&IPC
एन टी पी सी लिमिटेड / NTPC Limited


- xiv) COD Commercial Operation Date shall mean the date on which the project is declared by NTPC for the purpose of determining the life of the project.
- xv) Contracted Capacity Shall have the meaning ascribed in Article 2.2 of this agreement
- xvi) CUF Capacity utilisation factor shall mean ratio of total Kwh (units) of power generated by solar plant in tariff year and installed capacity in Kwp multiplied with number of hours in the same tariff year.
- xvii) Delivered Energy Shall mean with respect to any billing month, the Kwh of electrical energy generated by the project and delivered to the Discoms at the interconnection point as measured by the energy meters at the interconnection point during that billing month.
- xviii) Due date of Payment Shall mean the date on which the amount payable by Discom to M/s NTPC for delivered energy during billing month becomes due for payments after 60 days from the date of billing as specified by the Regulator. In case of the payment of bill for charges payable is delayed beyond a period of 60 days from the date of billing late payment surcharge at the rate of 1.50% per month shall be payable.
- xix) Effective Date means the date of signing of this Agreement
- xx) Energy Account Periodic Energy Account issued by Concerned Load Dispatch Centre including amendments thereof.
- xxi) Escrow Agreement Shall have the meaning as ascribed under Article 7.3.8
- xxii) Force Majeure shall have the meaning ascribed thereto in Article 9 of this Agreement;
- xxiii) GOI Government of India
- xxiv) GoAP Government of Andhra Pradesh


Maal

सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड / NTPC Limited
कोर-6, चतुर्थ तल / Core-6, 4th Floor
7, स्कोप कॉम्प्लेक्स / 7, SCOPE Complex
एनटीपीसी लिमिटेड / NTPC Limited
एनटीपीसी लिमिटेड / NTPC Limited
एनटीपीसी लिमिटेड / NTPC Limited


CHIEF GENERAL MANAGER
P&M&IPC
APSPDCL :: TIRUPATI

- xxv) IEGC or State Grid Code Shall mean the Grid Code specified by CERC under Clause (h) of sub-section (1) of Section 79 of The Electricity Act and/or the State Grid Code as specified by the concerned State Commission, referred under Clause (h) of sub-section (1) of section 86 of The Electricity Act 2003, as applicable including any amendment thereof;
- xxvi) Interconnection point Interface point of solar power station with the transmission system developed by APTRANSCO/APSPCL (Andhra Pradesh Solar Power Corporation Ltd.), that is, incoming 33 KV feeder of 33/220 KV pooling substation of APSPCL (Andhra Pradesh Solar Power Corporation Private Limited).
- xxvii) Installed Capacity As given at clause 2.1 of this agreement
- xxviii) LC Irrevocable Unconditional Revolving Letter(s) of Credit.
- xxix) Main and Check Meter Meter for measurement and checking of import/export of energy on the Interconnection point for Energy Accounting.
- xxx) Meter reading date Shall mean 1st of each calendar month
- xxxii) Monthly Bill Provisional Monthly Bill raised by NTPC as per Joint Meter Readings statement certified by NTPC and utility representative. Final Bill will be raised by NTPC as per energy account issued by concerned load despatch centre.
- xxxiii) Metering point At Interconnection Point.
- xxxiv) Party/Parties Shall have the meaning ascribed thereto in the recital to this Agreement
- xxxv) Permitted Assigns Have the meaning as per Article 14 of this agreement
- xxxvi) Project Shall mean the solar power generating unit of installed capacity of 250 MWp of NTPC at NP Kunta Ultra Mega Solar Park.
- xxxvii) Receivables As defined under Article 7.3.8.
- xxxviii) APSLDC Andhra Pradesh State Load Despatch Centre
- xxxix) Station Have the meaning as given in the recital
- xxxx) STU State Transmission Utility

 सी. वी. आनन्द/C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)


CHIEF GENERAL MANAGER
P&M M&IPC
APSPDCL :: TIRUPATI

- xl) Supplementary Bill Have the meaning under the Article 7.1.3 . Bills other than the monthly energy bill.
- xli) Time Schedule Shall mean the time schedule of completion of the project which is 12 months for 200 MW from the date of award and additional 6 months for additional 50 MW
- xl ii) Third Party(ies) Any person other than the person to whom electricity is contracted under this Agreement
- xl iii) Transmission Licensee Have the meaning as per Electricity Act 2003
- xl iv) Tripartite Agreement (TPA) The Tripartite Agreement dated 20th March 2003 signed by Govt of Andhra Pradesh, GOI and Reserve Bank of India as per the provisions of the GOI Scheme for One time Settlement of SEBs dues
- xl v) UNIT Each inverter of the solar photovoltaic generating station along with associated modules { as defined in CEA (Technical Standards for Connectivity to the grid) Amendment Regulations,2013 }

2.0 GENERAL

2.1 INSTALLED CAPACITY:

The total capacity of the station is 250 MWp under Stage -I.

2.2 ALLOCATION OF CAPACITY:

- 2.2.1 The Contracted Capacity to the State of Andhra Pradesh shall be 100 % subject to approval of Ministry of Power, GOI without prejudice to the interest of AP Discoms.
- 2.2.2 The capacity allocation from Station among the APDISCOMs including APSPDCL shall be allocated by GoAP.
- 2.2.3 The above allocation in favour of APSPDCL shall be contracted capacity subject to signing of the agreement.

3.0 TRANSMISSION / WHEELING OF ELECTRICITY

- 3.1 Sale of electricity shall be at the Interconnection point i.e. incoming 33kV feeder of 33/220 KV pooling sub-station of APSPCL. APSPDCL to make the required arrangement for evacuation of electricity from such Interconnection Point of the Station duly coordinating with APSPCL/PGCIL/APTransco and any other agency.



सी. वी. आनन्द / C. V. ANAND

महा प्रबंधक (वाणिज्य)

General Manager (Commercial)


CHIEF GENERAL MANAGER

3.2 NTPC shall not be responsible for payment of Transmission / Wheeling Charges beyond interconnection point.

3.3 All efforts will be made by the beneficiary to maintain the transmission system to have highest availability for evacuation of power.

4.0 SCHEDULING, DESPATCH ,METERING AND ENERGY ACCOUNTING

4.1 SCHEDULING

It is understood and agreed by and between the parties that NTPC shall operate the Station as per the manufacturers' guidelines, applicable grid operating standards and relevant statutory provisions, as applicable from time to time. It is agreed between the Parties that the Station shall be treated as 'MUST RUN' and shall not be subject to merit order scheduling.

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

4.2 METERING

4.2.1 A set of Main and Check Meters of 0.2S accuracy class, as per CEA (Installation & operation of meters) Regulations 2006/IEGC as applicable, shall be Procured and installed by NTPC at 33KV Interconnection point of solar plant (as per clause 1.2. xxvi) based on specifications provided by APSPDCL. A standby meter shall also be installed at 33 KV interconnection point.

4.2.2 The Main and Check Meters shall be checked jointly at the time of installation as per the CEA (Installation & Operation of Meters) Regulations 2006 as amended from time to time.

4.2.3 Data shall be downloaded from the meters at regular intervals as decided by Concerned Load Dispatch Centre for preparation of the Energy Account.

4.2.4 Regular cross checking and analysis of meter readings and meter failure or discrepancies shall be reckoned as per CEA (Installation & Operation of Meters) Regulations 2006 as amended from time to time. If the Main Meter or Check Meter is found to be not working at the time of meter readings or at any other time, NTPC shall inform the Concerned Load Dispatch Centre of the same.



सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड / NTPC Limited


CHIEF GENERAL MANAGER

4.2.5 In case of failure of meters, energy accounting for the period shall be as per procedure laid down by CERC or as per the mutually agreed procedure. In case of absence of any such procedure, the following procedure shall be followed:

In case of failure of Main Meter, readings of Check Meter for the corresponding period shall be considered for energy accounting. If both the Main and Check Meter(s) fail to record or if any of the PT fuses is blown out, energy shall be computed based on standby meters. In case of dispute, resolution shall be as per provision of Article 8.

4.2.6 Periodic testing of both Main and Check Meters shall be carried out in the presence of representatives of NTPC and APSPDCL as per procedure laid out in CEA (Installation & Operation of Meters) Regulations, 2006. For any testing and/ or replacement, notice of seven days will be given.

4.3 ENERGY ACCOUNTING

4.3.1 Monthly bill/s shall be raised by NTPC based on JMR (Joint Meter Reading) signed between NTPC and APSPDCL on 1st day of every month. These bills shall be regularised/modified in the next month bill/s, based upon ratification of energy supplied on the issuance of REA by RLDC/SLDC.

4.3.2 Energy Account issued by Concerned Load Dispatch Centre or any other Competent Authority shall be binding on all the parties for billing and payment purposes.

4.3.3 Any change in the methodology of Energy Account shall be done only as per mutually agreed decisions.

4.3.4 APSPDCL may identify the energy procured from the Station to meet its renewable purchase obligations (as mandated by the Appropriate Commission).

5.0 Commissioning of Solar power generating station

Each UNIT of solar power generating station shall be deemed to be commissioned as and when a block of 5 MW is commissioned progressively on different dates. NTPC will progressively inform APSPDCL in writing atleast 5 days in advance about commissioning of the inverters in the steps of 5 MW. Electricity supplied from inverter UNIT(s), shall be billable from date of commissioning/charging first 5 MW of

सौ. वी. आनन्द/C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)



CHIEF GENERAL MANAGER

capacity and subsequently in blocks of 5 MW. Suitable mechanism will be mutually discussed and finalised before commissioning of 1st 5 MW block. Metering shall be as per clause 4.2.

6.0 Tariff


6.1 The tariff on levelised basis for entire energy supplied from any UNIT of Stage-I (250 MWp) shall be payable by APSPDCL @ Rs 6.16 per kwh .This has been arrived at by considering the Viability Gap Funding (VGF) of Rs. 1.0 crore / MW provided by the Gol vide MNRE letter No 30/11/2014-15/NSM dated 20/03/2015 and availing the accelerated depreciation benefit etc. For the annual CUF above 18.13%, the tariff shall be 50% of Rs. 6.16/Kwh. For the annual CUF between 18.13% and 17.9%, APSPDCL shall compensate NTPC for the energy equivalent to annual CUF of 18.13% at Rs 6.16/Kwh after deducting the compensation received from EPC contractor as per EPC contract. The tariff for all generating UNITS of the Stage-I shall be uniform irrespective of the date of commissioning and shall be put up before the Appropriate Commissions.

6.2 Auxiliary Power consumption:

NTPC is entitled to draw the power for its auxiliary consumption, the limit of which is specified as 0.1% of the capacity of the project. The energy supplied by the Discom to NTPC through a bilateral agreement, to maintain the auxiliaries of the power plant in situations of non-generation of power, in any billing month shall be adjusted from the delivered energy as indicated below.

Net Energy = Delivered Energy by the developer at the Interconnection Point - Energy Drawl from DISCOM for auxiliaries.

However, in case Net Energy in the above calculation is negative, ie. there is NO Delivered Energy by NTPC at the Interconnection Point, then the Energy drawl from the DISCOM shall be billed at the applicable tariff of HT-1 category consumers.


सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड / NTPC Limited


CHIEF GENERAL MANAGER
P&M M&IPC
APSPDCL :: TIRUPATI

6.3 TAXES, LEVIES, DUTIES, ROYALTY, FILING FEES , PUBLICATION EXPENSES, CESS ETC.:

6.3.1 Any tax/levy/duty/Royalty/Cess etc., apart from that already factored in the tariff of Rs.6.16/kwh, as and when levied by any Government/Statutory body/authority , on any future date, shall be borne and additionally paid by APSPDCL to NTPC from the effective date of such taxes , levies, duties, royalty, cess etc.

7 BILLING AND PAYMENT

7.1 BILLING:

The Charges for Supply of Electricity under this Agreement shall be billed by NTPC as per tariff mentioned at Clause 6 above and the same shall be paid by APSPDCL in accordance with the following provisions:

7.1.1 NTPC shall present the bills for electricity supplied to APSPDCL from the Station for the previous month, based on JMR / Energy Account issued by Concerned Load Dispatch Centre or any other Competent Authority.

7.1.2 Billing Centre of NTPC shall carry out billing and associated functions. NTPC would submit the bills to the Officer to be nominated by APSPDCL.

7.1.3 The Monthly Bill for the Station shall include the Charges for Supply of Electricity under this Agreement, income tax, other taxes, duties, cess etc. 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).

7.1.4 APSPDCL shall arrange payment of such Monthly Bill(s)/Supplementary Bill(s) promptly through Letter of Credit (LC) at the designated account of NTPC. The date of transfer of payment to NTPC 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 NTPC shall be paid in full subject to the condition that-

i) there is no apparent arithmetical error in the bill(s)



सी. वी. आनन्द/C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड/ NTPC Limited


CHIEF GENERAL MANAGER
P&M M&IPC

- ii) the bill(s) is/are claimed as per the tariff
- iii) the bill(s) are in accordance with the Energy Accounts issued by Concerned Load Dispatch Centre/ any other Competent Authority. In case of delay in issuance of Energy Account, bills shall be raised based on meter readings available with NTPC and will be adjusted subsequently when Energy Account is issued.

7.1.5 All payments made by APSPDCL, shall be appropriated by NTPC for amounts due from APSPDCL 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 income tax, other tax, royalty etc in the current bill (s).
- iv) towards the other charges in current Monthly Bill

7.1.6 In case APSPDCL disputes any amount, even then, it shall pay 95% of the disputed amount forthwith and file a written objection with NTPC 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 shall not be a valid ground for dispute.

7.1.7 The amount of excess/shortfall with respect to the said 95% payment based on finally determined amount in line with Article 7 shall be paid/adjusted with the applicable interest rate from the date on which the amount in dispute was payable/refundable.

7.2 REBATE AND LATE PAYMENT SURCHARGE

Rebate and Late Payment Surcharge shall be as per applicable Terms and Conditions of Tariff, issued by appropriate Regulatory Commission as amended from time to time. No rebate shall be payable on the bills raised on account of taxes, duties, royalty / cess etc.



सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड / NTPC Limited



CHIEF GENERAL MANAGER
P&M M&IPC
APSPDCL :: TIRUPATI

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

7.3.1 APSPDCL shall establish an irrevocable unconditional revolving Letter of Credit (LC) in favour of NTPC with a public sector / scheduled commercial bank [as per list supplied by NTPC] at least one month prior to the commencement of electricity supply from the first unit of the Station.

7.3.2 The LC shall cover 105% of the one month's estimated billing in respect of electricity supplied from the Station to APSPDCL. This shall be in addition to the obligation of APSPDCL to establish similar letters of credit for supply of electricity to APSPDCL from all other generating Stations of NTPC.

7.3.3 The amount of LC shall be reviewed each half-year commencing April and October in each financial year on the basis of the average of billing of previous 12 months and the LC amount shall be enhanced/reduced accordingly not later than 1st July and 1st January respectively of the same financial year.

7.3.4 The LC shall be established for a minimum period of one year. APSPDCL shall ensure that LC remains valid at all times during the entire/extended validity of this Agreement. LC shall be renewed not later than 30 days prior to expiry of existing LCs.

7.3.5 LC shall specify the manner and dates when bill(s) can be presented to Bank by NTPC. The bills so presented by NTPC to the Bank shall be promptly paid on their presentation. The LC charges shall be borne by APSPDCL.

7.3.6 All costs relating to opening and maintenance and negotiation of LC shall be borne by APSPDCL.

7.3.7 In case of drawal of the LC amount by NTPC in accordance with the terms of this Article, the amount of LC shall be reinstated automatically not later than 7 days from such drawal. APSPDCL shall arrange to furnish to NTPC a certificate to this effect from Bank(s) providing LC. In the event LC is not reinstated within 7 days, regulation of power supply shall be as per Article 7.4.

7.3.8 Provisions of Tripartite Agreement signed on 20.03.2003 between Govt. of AP Govt.



सी. वी. आनन्द/C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)



CHIEF GENERAL MANAGER

of India and Reserve Bank of India under the Scheme for One Time Settlement of SEB dues shall be applicable for supply of electricity from this station and for safeguarding payments for the same. APSPDCL hereby agrees to provide an alternative payment security arrangement before expiry of the TPA either by efflux of time or otherwise on assignment of bulk purchase function to a company not owned or controlled by Govt of Andhra Pradesh in the form of Escrow Arrangement as a back up to the Letter of Credit. Under this arrangement an Escrow Account in favour of NTPC shall be established through which the Receivables of APSPDCL shall be routed as per the terms of Escrow Agreement. APSPDCL hereby agrees that NTPC will have first charge on Receivables of APSPDCL. However, such first ranking 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 the execution of this Agreement and as listed in the schedule enclosed with this Agreement. APSPDCL agrees to enter into a separate 'Agreement to Hypothecate Cum Deed of Hypothecation' whereby, APSPDCL shall hypothecate Receivables to the extent required for Payment of dues of NTPC by APSPDCL including under this Agreement by creation of first charge in favour of NTPC. These Receivables shall be routed through Escrow Account for payment to NTPC in case of default in payments by APSPDCL. "Receivables" for this purpose shall mean all of the present and future 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 APSPDCL in respect of the sale by the APSPDCL to the consumers of electric capacity, energy and / or services or for any other reason whatsoever and all proceeds thereof.

7.3.9 The Escrow Agreement and Agreement to Hypothecate Cum Deed of Hypothecation shall be established by APSPDCL to the satisfaction of NTPC at least one year before the expiry of the TPA either by efflux of time or otherwise on assignment of bulk purchase function to a company not owned by Govt of Andhra Pradesh. In the event before expiry of TPA, APSPDCL does not sign the 'Escrow Agreement' and 'Agreement to Hypothecate Cum Deed of Hypothecation' at least 3 months before the expiry of TPA or APSPDCL creating any superior charge in favour of any other party on its Receivables, NTPC shall have the right to reallocate contracted capacity of APSPDCL to Third Party (ies) . In case of termination of this Agreement or reallocation of capacity due to reasons stated above, APSPDCL shall be liable to pay tariff for such capacity till the capacity is reallocated.



सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड / NTPC Limited



CHIEF GENERAL MANAGER
P&M M&IPC

Since the payments from APSPDCL are currently secured as per the provisions of the TPA, establishing of Escrow Arrangement is not being insisted upon by NTPC presently. APSPDCL and NTPC agree that this Agreement shall be deemed to have created a legally binding first charge on APSPDCL Receivables in favour of NTPC. Accordingly, APSPDCL 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 of payment security to any other entities like electricity supplier(s), banks, financial institutions etc. during the interim period till signing of Escrow Agreement with NTPC, APSPDCL shall duly inform such electricity supplier(s), banks, financial institutions etc. of the legally binding first charge on APSPDCL Receivables in favour of NTPC and the first charge of NTPC shall be in preference to any other charge that APSPDCL may create in favour of any other party.

Except for the provisions of this Agreement, the other terms and conditions of "Escrow Agreement" and "Agreement to Hypothecate cum Deed of Hypothecation", to be entered into by the parties as above, shall be as per the provisions of corresponding documents used for the latest Ultra Mega Power Project competitively bid under Case-II format of Standard Bidding Documents of Government of India.

7.3.10 APSPDCL agrees to ensure that the successor entities of APSPDCL are duly notified of the above arrangement with NTPC and shall be bound by the terms of this Agreement as if they are parties to this Agreement.

7.4 REGULATION OF POWER SUPPLY AND THIRD PARTY SALES

7.4.1 Notwithstanding the obligations of APSPDCL to pay all the dues as per this Agreement, in the event of default in opening/reinstatement of LC of requisite amount as per Article 7.3 in favour of NTPC or non - payment of bills within a period of 60 days of billing, NTPC shall be entitled to regulate the supply of power to APSPDCL from any Power Station of NTPC for which PPA/BPSA has been signed by APSPDCL and/or divert to any other Bulk Power Customer(s)/ Third Party(ies) as per the provisions of generic procedure for regulation of power supply issued by CERC or any other competent authority from time to time read with the provisions of TPA.



सी. वी. आनन्द/C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एन. टी. पी. लिमिटेड/NTPC Limited



CHIEF GENERAL MANAGER
एन. टी. पी. लिमिटेड

- 7.4.2 Supply to APSPDCL shall be restored after a period of 30(thirty) days of setting right of the Default in case of 1st (first) occurrence in the Financial Year. Supply to APSPDCL will be restored after a period of 60(sixty) or 90(ninety) days from setting right of the default of the 2nd (second), 3rd (Third) or subsequent occurrences in the Financial Year, respectively of such defaults.
- 7.4.3 In case of default in payment of bills beyond a period of 90 (ninety) days of billing, NTPC shall have the right to re-allocate part or full allocated capacity from station to third party(ies).
- 7.4.4 In case of regulation/diversion of power, APSPDCL shall continue to be liable to pay the Charges corresponding to average monthly billing of last twelve months from the station from which power is being regulated. Any surplus recovered over and above charge and incidental expenses of the Regulated Capacity shall be adjusted towards unpaid bills from the Station.

8.0 SETTLEMENT OF DISPUTES

- 8.1 All differences or disputes between the parties arising out of or in connection with this Agreement shall be mutually discussed and amicably resolved within 90 days.

8.2 ARBITRATION

- 8.2.1 In the event that the parties are unable to resolve any dispute, controversy or claim relating to or arising under this Agreement, as stated above, the same shall be dealt with as per the provisions of the Electricity Act, 2003. The place of Arbitration shall be New Delhi.

9.0 FORCE MAJEURE

Neither 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 or terrorism or any other reason beyond the control of concerned party. 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



सी. वी. आनन्द/C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)



CHIEF GENERAL MANAGER

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.

10.0 CHANGE IN LAW

DEFINITIONS

The following terms shall have the following meanings:

10.1.1 "Change in Law" means the occurrence of any of the following events after the Effective Date resulting into any additional recurring/ non-recurring expenditure by the Station or any income to the Station:

- the enactment, coming into effect, adoption, promulgation, amendment, modification or repeal (without re-enactment or consolidation), of any Law, including rules and regulations framed pursuant to such Law;
- a change in the interpretation or application of any Law by any Indian Governmental Instrumentality having the legal power to interpret or apply such Law, or any Competent Court of Law;
- the imposition of a requirement for obtaining any Consents, Clearances and Permits which was not required earlier;
- a change in the terms and conditions prescribed for obtaining any Consents, Clearances and Permits or the inclusion of any new terms or conditions for obtaining such Consents, Clearances and Permits; except due to any default of the Station;
- any change in tax or introduction of any tax made applicable for sale of power by the Station to APSPDCL as per the terms of this Agreement.

RELIEF FOR CHANGE IN LAW

10.1.2 The Parties shall be required to approach the CERC for seeking approval of Change in Law.

10.1.3 The decision of the CERC to acknowledge a Change in Law and provide relief for the same shall be final and governing on both the Parties.



सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड / NTPC Limited



CHIEF GENERAL MANAGER
P&M&IPC
APSPDCL

11.0 IMPLEMENTATION OF THE AGREEMENT

All discretions to be exercised and directions, approvals, consents and notices to be given and actions to be taken under these presents unless otherwise expressly provided herein, shall be exercised and given by the signatories to this Agreement or by the authorised representative(s) that each party may nominate in this behalf and notify in writing to the other party by Registered Post. Any other nomination of authorised representative(s) shall be informed likewise in writing to/by APSPDCL within one month of signing of the Agreement. Notwithstanding any nomination, the Regional Executive Director (South), NTPC Ltd., Secunderabad as well as Executive Director (Commercial), NTPC Ltd., NTPC Bhawan, Core 7, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110 003 or their authorised representative(s) at its Registered Office first above mentioned shall be authorised to act severally for and on behalf of NTPC.

12.0 NOTICE

All notices required or referred to under this Agreement shall be in writing and signed by the respective authorised signatories of the parties mentioned herein above, unless otherwise notified. Each such notice shall be deemed to have been duly given if delivered or served by registered mail/speed post of Department of Posts with an acknowledgement due to the other parties in terms of IMPLEMENTATION OF THE AGREEMENT at Article 10 above.

13.0 EFFECTIVE DATE AND DURATION OF AGREEMENT

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

Agreement shall remain operative up to completion of twenty five (25) years from the date of commissioning of full 250 MWp unless it is specifically extended on mutually agreed terms.

14.0 SUCCESSORS AND PERMITTED ASSIGNS

14.1 In case the functions of APSPDCL are reorganised and/or this Agreement is assigned to other organisation(s)/ agency(ies), partly or wholly, the Agreement shall be



सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
NTPC Limited



CHIEF GENERAL MANAGER

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 organisation(s)/agency(ies)/entities provided that the successor organisation(s)/agency(ies) is/are owned or controlled by APSPDCL.


14.2 In the event the functions of APSPDCL are reorganised and/or privatised or this Agreement is assigned to Private organisation(s)/agency (ies), partly or wholly, APSPDCL shall ensure that the agreements namely 'Escrow Agreement' and 'Agreement to Hypothecate Cum Deed of Hypothecation' as mentioned at Article 7.3 under ESTABLISHMENT OF LETTER OF CREDIT(LC) AND PAYMENT SECURITY MECHANISM are signed by the assignee before assignment of this Agreement.

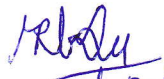
14.3 Only such of the successor entities who fulfil the above requirements and execute the requisite documents as above shall be termed as the permitted assigns.

14.4 In other cases NTPC shall have the right to terminate this Agreement. In the event of termination of this Agreement, APSPDCL shall be liable and continue to pay the Tariff each month till firm arrangement for sale of power generated at the Station with alternate customers substituting APSPDCL is tied up.

IN WITNESS WHEREOF the parties have executed these presents through their Authorised Representatives on the date mentioned above.

WITNESS


1. 
A. ANTHONI
DGM (Comm), NTPC

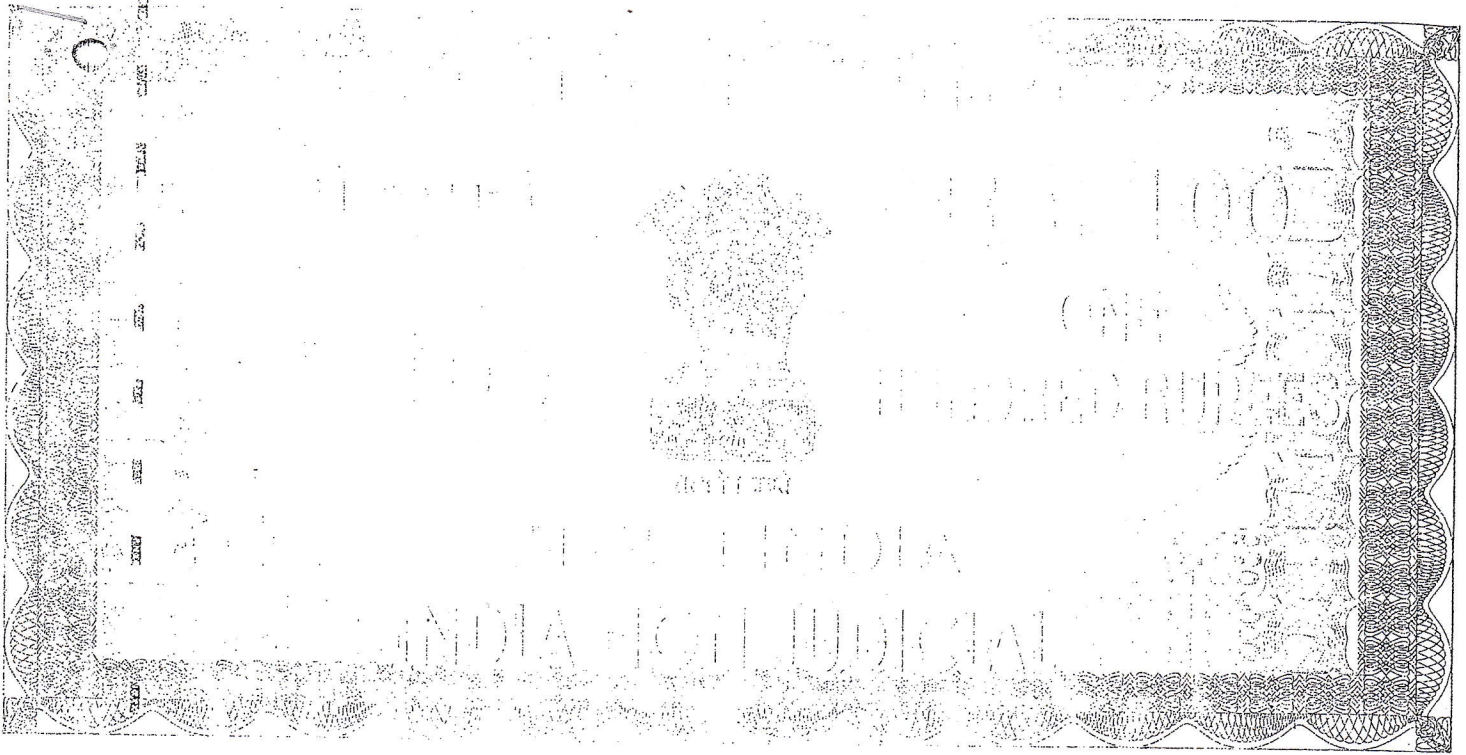
2. 
S. SUBRAMANIAN

सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड / NTPC Limited
कोर-6, चतुर्थ तल / Core-6, 4th Floor
7, स्कोप कॉम्प्लेक्स / 7, SCOPE Complex
लोधी रोड, नई दिल्ली-3 / Lodhi Road, New Delhi-3



For and on behalf of
NTPC Ltd


For and on behalf of
CHIEF GENERAL MANAGER
P&M NTPC
APSPDCL :: TIRUPATI



ఆంధ్రప్రదేశ్ రాష్ట్రం ANDHRA PRADESH
 7067 12/09/2014
 Y. Y. Srinivasa Srinama
 Y. Ramachandrababu
 NTPC LTD.

BK 921307
 P. R.

జానపతి ఇంటి, ప. స. సుందరపల్లి (N)
 R.R. Dist-580 007, Call:9349226411

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter referred to as "MoU") is entered on this 16th day of September 2014 at Hyderabad by and between:

Govt. of State of Andhra Pradesh, through Secretary, Department of Energy, having its Head office at Viduyt Soudha, Khairatabad, Hyderabad-500082, (hereinafter referred to as "GoAP") which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) of the **FIRST PART**

and

NTPC Limited, a Company incorporated under the Companies Act, 1956 and having its registered office at NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi -110003, India (hereinafter referred to as 'NTPC') which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) of the **SECOND PART**

(NTPC and GoAP are hereinafter referred to individually as the "Party" and collectively as "Parties").

[Handwritten signature]
 CHIEF GENERAL MANAGER
 P&M M&IPC
 ABSRDCL :: TIRUPATI

[Handwritten signature]

[Handwritten signature]
 C.V. ANAND
 మా ప్రధానక (వాణిజ్య)

WHEREAS as per NTPC's Corporate Plan, the capacity mix targeted by 2032 comprises of 9% renewable energy which amounts to an installed renewable energy capacity of 11,520 MW. Further NTPC also has a short-term capacity addition target of 1000 MW through renewable energy sources by the year 2017.

AND WHEREAS GoAP intends to set up large scale solar power project(s) in the state and abundant land is available for the same.

AND WHEREAS Ministry of New and Renewable Energy (MNRE) has proposed to issue a notification regarding mandatory establishment of new solar generating capacity by the thermal generating utilities and this notification as and when issued shall be applicable.

AND WHEREAS it was agreed that NTPC & GoAP shall sign an MoU for development of 1000 MW Solar power project(s) in Andhra Pradesh by NTPC.

NOW THEREFORE THIS MEMORANDUM OF UNDERSTANDING ("MoU") WITNESSETH AS FOLLOWS:

In consideration of the aforesaid objectives, the Parties hereto agree to sign these presents on mutually agreed terms and conditions contained hereinafter:


1.0 OBJECTIVE

To develop 1000 MW Solar power project(s) at suitable site(s) identified by GoAP in a phased manner.

2.0 METHODOLOGY

- a) GoAP will identify and allot requisite land on payment of nominal lease rent, to be mutually agreed by the Parties, for 1000MW solar power project(s) at sites with high solar radiation to NTPC initially for a period of 25 years with a provision for further extension on mutually agreed terms.
- b) NTPC shall develop 1000MW solar power project(s) at sites identified by GoAP in a phased manner as mutually agreed.
- c) Applicable tariff for the solar project(s) shall be determined on cost plus basis based on discovered project cost from competitive bidding by NTPC and other parameters based on applicable appropriate commission regulations/norms.
- d) The time-frame for various activities under the MOU including acquisition and handing over of requisite land, infrastructure development, statutory clearances, feasibility studies, competitive bidding, project implementation and development of power evacuation infrastructure etc. shall be finalized and monitored by a joint working group comprising of representatives to be nominated by GoAP and NTPC. The joint working group shall be constituted after signing of the MOU.


CHIEF GENERAL MANAGER
P&M M&IPC
APSPDCL :: TIRUPATI


C. V. ANAND
सा. वा. अधिकारी (वाणिज्य)
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
NTPC Limited

3.0 RESPONSIBILITIES OF THE PARTIES

3.1 Responsibility of GoAP


- a) GoAP will identify and allot requisite land on payment of nominal lease rent, to be mutually agreed in writing by the Parties, for 1000MW solar power project(s) at sites with high solar radiation to NTPC initially for a period of 25 years with a provision for further extension on mutually agreed terms of both the parties.
- b) [Statutory clearances and approvals for the project(s), availability of land and other required infrastructure such as approach road, water supply, power evacuation etc. shall be facilitated by GoAP at no cost to NTPC.]
- c) [GoAP shall facilitate through suitable agency, the establishment of any Sub-Station and/or transmission line from the solar project upto grid substation that may be required for power evacuation, at no cost to NTPC.]
- d) The infrastructure support such as development of approach roads/strengthening of existing roads, drainage, ground leveling, arranging water supply etc. would be facilitated by GoAP through Solar Energy Corporation of India (SECI)/any other agency at no cost to NTPC.
- e) GoAP shall facilitate signing of Power Purchase Agreement (PPA) for the project as per applicable tariff as at para 2.0 (c) above with adequate payment security mechanism in line with existing PPAs for NTPC project.

3.2 Responsibility of NTPC

- a) NTPC shall carry out competitive bidding for works & procurement of equipment as per CPSU/CVC guidelines for determining the discovered project cost. A nominee of GoAP shall be associated while establishing the discovered project cost.
- b) NTPC shall prepare the Feasibility Report (FR) of the identified project(s) for assessing their techno-economical viability.
- c) NTPC shall implement the 1000MW Solar Power Project(s) on Build-Own-Operate (BOO) basis, in a phased manner.

4.0 DETERMINATION OF DISCOVERED PRICE AND APPLICABLE TARIFF

- 4.1 Applicable tariff for the solar project(s) shall be determined on cost plus basis based on discovered project cost from competitive bidding by NTPC and other parameters based on applicable appropriate commission regulations. A nominee of GoAP shall be associated while determining the discovered project cost.
- 4.2 The power generated from the proposed 1000MW solar project(s) shall be allocated to APDISCOMs, subject to approval of both the parties.
- 4.3 These stations shall be treated as must run stations and shall not be subject to scheduling.


CHIEF GENERAL MANAGER
P&M
APSPDCL, TRIPATHI



C.V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)


5.0 EXPENDITURE

- 5.1 NTPC shall bear all costs and expenses towards preparation of feasibility report. However, NTPC shall not incur any other costs, till the techno-economic viability of the project is established and PPA(s) are signed.
- 5.2 Costs towards infrastructure development, land, water, power evacuation system/sub-station etc. shall be arranged by GoAP.
- 5.3 No processing/registration fees, statutory charges etc. shall be levied to NTPC.
- 5.4 In case techno economic viability of the project is established, the cost incurred towards preparation of feasibility report shall be considered as a part of the capital cost of the project. In case the project is transferred to a third party after its techno economic viability is established, all costs incurred by NTPC towards the project(s) shall be reimbursable to NTPC along with interest at prevailing SBI bank rate.

6.0 CONFIDENTIALITY

- 6.1 The parties to the extent of their respective rights to do so, shall exchange such technical information and data as is reasonably required of each party to perform its responsibilities under this MoU. Each party agrees to keep in confidence and to use the same degree of care as it uses with respect to its own proprietary data to prevent the disclosure to third parties of all technical information, data and confidential business information (hereinafter called "Data").
- 6.2 Data exchanged by the parties under this MoU shall not be used for any other purpose. except the purpose set out under this MoU.
- 6.3 Exchange, use and maintaining confidentiality of data shall be mutually discussed and agreed to by the parties.
- 6.4 The preceding provisions of confidentiality and restriction on use of data shall not apply to:
- Information in the public domain or information which subsequently enters into public domain without committing breach of this Article.
 - Information in possession of the party at the time of disclosure and which was not acquired, directly or indirectly from the other party.
 - Information which a party is required to disclose under law, rules or regulations to any judicial or other authorities.
 - Consultants/advisors (from Government or non government agencies from India and abroad), provided they in turn sign a similar undertaking of confidentiality.


CHIEF GENERAL MANAGER
P&M M&IPC
APSPDCL :: TIRUPATI


सी. वी. आनन्द/C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
एनटीपीसी लिमिटेड/ NTPC Limited

copy 4

7.0 AMENDMENT

No amendment of any provision of this MOU shall in any event be effective unless the same has been made in writing by both the parties.

8.0 ASSIGNMENT

Neither party shall have the right to assign this MOU without the other party's prior written consent provided, however, that each of the party hereto reserves the right in its sole discretion to assign its right and obligations under this MoU to a wholly owned affiliate provided that assignee shall furnish an undertaking agreeing to be bound by the terms of this MoU.

9.0 ARBITRATION

9.1 Any matter which is not stipulated herein as well as any disagreement between parties shall be amicably resolved by the Parties based on mutual discussions within the spirit of this MOU.

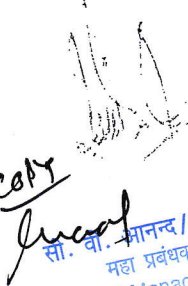
9.2 In case of non resolution of the difference through mutual consultations, the same shall be resolved through arbitration in terms of office memorandum No. 4(1)/2011-DPE(PMA)-GL dated 12.06.2013 issued by Government of India, Ministry of Heavy Industry Dept. of Public Enterprises and Govt. guidelines on the subject issued from time to time. The language of the arbitration shall be English.

10.0 JURISDICTION OF COURT

The Courts at New Delhi shall have exclusive Jurisdiction in all matters relating to or arising out of this MOU

11.0 NOTICES

Any notice to be given under this MoU shall be in writing and shall be deemed to have been duly and properly served upon the Parties hereto if delivered against acknowledgement or by registered mail with acknowledgement due, addressed to the Parties herein at the following addresses or such changed addresses as will be duly notified by the Parties to each others from time to time.

copy
local

सो. वा. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
APSPDCL Limited


CHIEF GENERAL MANAGER
P&M&IPC
APSPDCL :: TIRUPATI



ADDRESS

NTPC

CMD, NTPC Limited.
NTPC Bhawan, Core-7, SCOPE Complex
7; Institutional Area; Lodhi Road
New Delhi – 110 003

**Govt. of State of
Andhra Pradesh**

Secretary(Energy), Govt. of Andhra Pradesh
Vidyut Soudha, Khairatabad, Hyderabad-
500082

12.0 EFFECTIVE DATE & VALIDITY

This MoU shall come into force as soon as it is signed for all purposes and intents and shall remain in force for a period of three years.

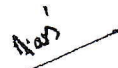
13.0 ENTIRE UNDERSTANDING

This MoU contains the entire understanding between the parties and supersedes all prior or contemporaneous oral or written agreements, commitments understanding or communication with respect to the subject matter thereof.

IN WITNESS WHEREOF THE PARTIES THROUGH THEIR AUTHORISED REPRESENTATIVE HAVE SIGNED THIS MOU ON THIS 16TH DAY OF SEPTEMBER, 2014 AT HYDERABAD

For and on behalf of NTPC Limited


**For and on behalf of Government of
Andhra Pradesh**




**(Dr. Arup Roy Choudhury)
Chairman & Managing Director**

**(Ajay Jain, IAS)
Secretary (Energy)**


WITNESS 1.


JAWAD KHAN

WITNESS 1.


(G. ADINARAYANA)

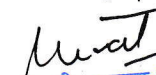
WITNESS 2.


CHIEF GENERAL MANAGER

WITNESS 2.


(G. RAJABABU)

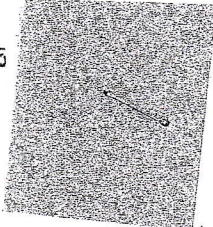
**CHIEF GENERAL MANAGER
P&M&IPC
APSPDCL :: TIRUPATI**

2014

सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)

13/Apr/2015 12:28:38 PM

ksudarshan comm 27804515

1/1



Ref. No.

Date: 11.04.2015

The Chairman & Managing Director,
NTPC Ltd.

URGENT
AO/B-S.

Sir,

13/4/2015

Sub.: Issue of Comfort Letter for Kadiri Solar PV Project- 1000MW

In response to your letter, dt 10.04.2015 with regard to Kadiri Solar PV project (1000MW), we hereby give our consent for availing entire 1000MW. The stage-I of 250 MW would be availed at a tariff of Rs 6.16 per Kwh. Necessary directions have been given to APSPDCL & APEPDCL for signing the PPA at the earliest.

Thanking you,



CHIEF GENERAL MANAGER
P&M&IPC
APSPDCL :: TIRUPATI

Your Sincerely,

AJS
11/4/15
(Ajay Jain)

Copy to : RED (S), NTPC

meat *copy*

सी. वी. आनन्द / C. V. ANAND
महा प्रबंधक (वाणिज्य)
General Manager (Commercial)
NTPC Limited
Floor

Secretary to Government
Energy, Infrastructure & Investment Dept.
A.P. Secretariat, Hyderabad - 500 022.

9. ANNEXURE - 1 (COST OF GENERATION CALCULATION)

Cost of Generation	31-Mar-16	31-Mar-17	31-Mar-18	31-Mar-19	31-Apr-19	31-Mar-20	31-Mar-21	31-Mar-22	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
For the year ending March																												
OSM and lease costs	0.00	0.69	0.72	0.74	0.76	0.79	1.25	1.34	1.45	1.52	1.62	1.72	1.83	1.94	2.07	2.20	2.34	2.49	2.64	2.81	3.00	3.19	3.39	3.61	3.85	4.09		
Interest on Debt	0.00	2.97	2.54	2.10	1.65	1.59	1.33	1.06	0.79	0.51	0.22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Investment VCC - Meritline	0.09	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.15	0.13	0.12	0.12	0.12	0.12	0.12	0.12		
Depreciation	0.00	2.52	2.36	2.14	2.27	2.29	2.31	2.34	2.37	2.39	2.42	2.44	2.46	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47		
Total Cost of Generation	0.00	6.33	5.77	5.22	5.03	4.82	5.05	4.89	4.75	4.58	4.42	4.33	4.26	4.19	4.09	3.98	3.84	3.70	3.56	3.43	3.30	3.18	3.06	2.94	2.82	2.70		
Discount Factor	1.00	0.95	0.96	0.90	0.74	0.59	0.54	0.59	0.54	0.59	0.55	0.51	0.47	0.44	0.41	0.38	0.35	0.32	0.30	0.28	0.26	0.24	0.22	0.21	0.19	0.18	0.16	
Levelized Generation Cost																												
	4.67																											

ADD: IFC	0.00	1.94	1.81	1.82	1.84	1.86	1.88	1.90	1.92	1.94	1.97	1.99	2.00	2.01	2.03	2.04	2.05	2.06	2.07	2.09	2.11	2.12	2.14	2.16	2.18	2.19	2.21	
Depreciation Benefits	0.00	13.37	1.92	-0.78	-0.79	-0.79	-0.80	-0.81	-0.82	-0.83	-0.84	-0.84	-0.84	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	-0.85	
Tax Eff	0.00	8.27	7.57	7.05	6.58	6.08	6.33	6.33	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	
Discount Factor	1.00	0.95	0.96	0.90	0.74	0.59	0.54	0.59	0.54	0.59	0.55	0.51	0.47	0.44	0.41	0.38	0.35	0.32	0.30	0.28	0.26	0.24	0.22	0.21	0.19	0.18	0.16	
Levelized Tariff without AD	6.62																											
Accelerated Depreciation Benefits	0.47																											
Levelized Tariff with AD	6.15																											

Handwritten Signature
सौ. वी. आनन्द / C. V. ANAND
 महा प्रबंधक (वित्तिय) /
 General Manager (Commercial)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोर-6, चतुर्थ तल / Core-6, 4th Floor
 7, स्कोप कॉम्प्लेक्स / 7, SCOPE Complex
 लोधी रोड, नई दिल्ली-3 / Lodhi Road, New Delhi-3

Handwritten Signature
Z. K. KHAN
 A&M (ES-COST ENGINEER)
 NTPC - CC

Handwritten Signature
CHIEF GENERAL MANAGER
 P&M M&IPC
 APSPDCL :: TIRUPATI

Project Cost	Rs. MN		% of Project cost		Debt Ratios		Equity	
	2017	2018	2017	2018	Min DSCR	Average DSCR	2017	2018
Land cost	0.00	0.00%	0.00%	0.00%	0.97	1.07	100	106
EPC cost	15720.56	90.49%	90.49%	62.9	1690		1690	1642.5
Pre-operative & Preliminary expenses.	30.00	0.17%	0.17%	0.1	70		70	81.94
Contingency	164.31	0.95%	0.95%	0.7	10		10	6.72
Infrastructure Cost (Township & Office, Cabling)	680.00	3.91%	3.91%	2.7	90		90	32.85
Project Management Cost	250.00	1.44%	1.44%	1.0	70		70	68.97
Interest during construction	527.58	3.04%	3.04%	2.1	10		10	5.50
Financing charges	0.00	0.00%	0.00%	-	40		40	42.50
Total project cost without WC margin	17372.45	100.00%	100.00%	69.5	20		20	15.30
Working Capital Margin	419.98	1.7	1.7	71.2	2100		2100	2002.28
Project Cost Including WC margin	17792.42							
Cost/MW	69.49							

Annual Summary - Key Financial Parameters	31-Mar-16		31-Mar-17		31-Mar-18		31-Mar-19		31-Mar-20		31-Mar-21		31-Mar-22		31-Mar-23		31-Mar-24		31-Mar-25		31-Mar-26	
	2016	2017	2017	2018	2018	2019	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028
For the year ending March																						
Units available for Sale (MUs)	0.00	354.54	390.57	386.60	382.63	378.66	374.69	370.72	366.75	362.78	358.81	354.84	350.87	346.90	342.93	338.96	334.99	331.02	327.05	323.08	319.11	315.14
CEs generated	0.00	363966	360303	356641	352978	349316	345653	342000	338338	334675	331012	327349	323686	320023	316360	312697	309034	305371	301708	298045	294382	290719
Revenue from Power Sale	0.00	2430.38	2405.93	2381.47	2357.01	2332.56	2308.10	2283.64	2259.19	2234.73	2210.27	2185.81	2161.35	2136.89	2112.43	2087.97	2063.51	2039.05	2014.59	1990.13	1965.67	1941.21
Revenue from CEs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Income	0.00	2430.38	2405.93	2381.47	2357.01	2332.56	2308.10	2283.64	2259.19	2234.73	2210.27	2185.81	2161.35	2136.89	2112.43	2087.97	2063.51	2039.05	2014.59	1990.13	1965.67	1941.21
O&M and land lease costs	0.00	2156.82	2126.59	2096.02	2065.45	2034.88	2004.31	1973.74	1943.17	1912.60	1882.03	1851.46	1820.89	1790.32	1759.75	1729.18	1698.61	1668.04	1637.47	1606.90	1576.33	1545.76
PBDIT	0.00	1172.59	993.48	810.34	707.93	601.87	495.79	389.71	283.63	177.55	71.47	23.84	19.46	15.07	10.68	6.29	1.90	1.51	1.12	0.73	0.34	0.00
Interest on debt	0.00	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95	57.95
Interest on working capital	0.00	994.84	921.97	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06
Depreciation	0.00	68.57	153.64	361.57	490.78	508.71	415.49	469.98	518.50	574.43	624.22	674.01	723.80	773.59	823.38	873.17	922.96	972.75	1022.54	1072.33	1122.12	1171.91
PBT	0.00	89.00	281.69	332.65	271.69	332.65	271.69	332.65	271.69	332.65	271.69	332.65	271.69	332.65	271.69	332.65	271.69	332.65	271.69	332.65	271.69	332.65
PAT	0.00	0.89	0.88	0.88	0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PBDIT / Revenue (%)	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
PAT / Revenue (%)	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
DSCR	0.00	1.01	1.04	0.97	1.00	1.02	0.99	1.01	1.03	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.27	1.30	1.33	1.36	1.39	1.42
Average DSCR	1.07																					
Minimum DSCR	0.97																					
Equity	3137.59	3224.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49	2974.49
Reserves & Surplus	0.00	1.57	11.62	35.26	63.43	96.69	123.86	154.59	188.50	226.06	266.88	309.35	351.82	394.29	436.76	479.23	521.70	564.17	606.64	649.11	691.58	734.05
Net Worth	3137.59	3226.06	2986.11	3009.75	3037.92	3071.18	3098.35	3129.08	3162.99	3200.55	3241.37	3280.55	3319.73	3358.91	3398.09	3437.27	3476.45	3515.63	3554.81	3593.99	3633.17	3672.35
Long Term debt	12550.37	11739.79	9581.63	8423.47	7265.30	6107.14	4948.98	3790.82	2632.65	1474.49	316.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cost of Generation	31-Mar-16		31-Mar-17		31-Mar-18		31-Mar-19		31-Mar-20		31-Mar-21		31-Mar-22		31-Mar-23		31-Mar-24		31-Mar-25		31-Mar-26	
	2016	2017	2017	2018	2018	2019	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028
For the year ending March																						
O&M and land lease costs	0.00	0.69	0.72	0.74	0.76	0.79	0.82	0.85	0.88	0.91	0.94	0.97	1.00	1.03	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.27
Interest on Debt	0.00	2.97	2.54	2.10	1.85	1.59	1.33	1.06	0.79	0.51	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on WC - Normative	0.00	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Depreciation	0.00	2.52	2.36	2.24	2.27	2.29	2.31	2.34	2.37	2.39	2.42	2.44	2.46	2.48	2.50	2.52	2.54	2.56	2.58	2.60	2.62	2.64
Total Cost of Generation	0.00	6.33	5.77	5.22	5.03	4.82	4.61	4.40	4.19	3.98	3.77	3.56	3.35	3.14	2.93	2.72	2.51	2.30	2.09	1.88	1.67	1.46
Discount Factor	0.00	1.00	0.93	0.86	0.80	0.74	0.69	0.64	0.59	0.54	0.49	0.44	0.39	0.34	0.29	0.24	0.19	0.14	0.09	0.04	0.00	0.00
Levelised Generation Cost	0.00	1.94	1.81	1.82	1.84	1.86	1.88	1.90	1.92	1.94	1.97	1.99	2.01	2.03	2.05	2.07	2.09	2.11	2.13	2.15	2.17	2.19

Add: RoE	31-Mar-16		31-Mar-17		31-Mar-18		31-Mar-19		31-Mar-20		31-Mar-21		31-Mar-22		31-Mar-23		31-Mar-24		31-Mar-25		31-Mar-26	
	2016	2017	2017	2018	2018	2019	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028
Depreciation Benefits	0.00	13.27	-1.92	-0.78	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79	-0.79
Tariff	0.00	8.27	7.57	7.05	6.88	6.68	6.53	6.38	6.23	6.08	5.93	5.78	5.63	5.48	5.33	5.18	5.03	4.88	4.73	4.58	4.43	4.28

2/5

Sd/-
सौ. वी. आनन्द / C. V. ANAND
 महा प्रबंधक (वार्डिंग)
 General Manager (Commercial)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोर-6, चतुर्थ तल / Core-6, 4th Floor
 7, स्कोप कॉम्प्लेक्स / 7, SCOPE Complex
 लोदी रोड, नई दिल्ली-110001

CHIEF GENERAL MANAGER
Z. KHAN
P & M M&IPC
AGM (ES-COST ENGG)
APSPDCL :: TIRUPATI
NTPC - CC

-106.00
 14078.06
 -51.94
 -6.72
 131.46
 611.03
 244.50
 485.08
 -15.30
 15370.17
 6
 -47.5
 11.94
 -3.28
 -57.15
 -1.03
 -4.5
 2.5
 -4.7
 -97.72

31-Mar-27 2027	31-Mar-28 2028	31-Mar-29 2029	31-Mar-30 2030	31-Mar-31 2031	31-Mar-32 2032	31-Mar-33 2033	31-Mar-34 2034	31-Mar-35 2035	31-Mar-36 2036	31-Mar-37 2037	31-Mar-38 2038	31-Mar-39 2039	31-Mar-40 2040	31-Mar-41 2041
355.67	353.02	350.37	347.73	345.08	342.43	339.79	337.14	334.49	331.85	329.20	326.55	323.91	321.26	318.61
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2190.91	2174.61	2158.30	2142.00	2125.69	2109.39	2093.09	2076.78	2060.48	2044.17	2027.87	2011.56	1995.26	1978.95	1962.65
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2190.91	2174.61	2158.30	2142.00	2125.69	2109.39	2093.09	2076.78	2060.48	2044.17	2027.87	2011.56	1995.26	1978.95	1962.65
612.04	647.35	681.12	718.65	758.32	802.44	844.61	891.50	941.06	996.17	1048.35	1107.42	1169.33	1238.17	1303.99
1578.87	1527.26	1477.19	1423.35	1367.37	1306.95	1248.47	1185.29	1119.42	1048.01	979.01	904.15	825.93	740.78	658.66
4.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.11	58.32	58.50	58.74	59.02	59.38	59.69	60.09	60.53	61.07	61.55	62.13	62.77	63.54	64.34
867.06	869.44	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06	867.06
649.55	599.49	551.63	503.58	455.53	407.48	359.43	311.38	263.33	215.28	167.23	119.18	71.13	23.08	-25.03
424.74	599.49	551.63	503.58	455.53	407.48	359.43	311.38	263.33	215.28	167.23	119.18	71.13	23.08	-25.03
0.72	0.70	0.68	0.66	0.64	0.62	0.60	0.57	0.54	0.51	0.48	0.45	0.41	0.37	0.34
0.19	0.28	0.26	0.24	0.22	0.20	0.18	0.16	0.14	0.12	0.10	0.08	0.06	0.04	0.02
4.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

31-Mar-27 2027	31-Mar-28 2028	31-Mar-29 2029	31-Mar-30 2030	31-Mar-31 2031	31-Mar-32 2032	31-Mar-33 2033	31-Mar-34 2034	31-Mar-35 2035	31-Mar-36 2036	31-Mar-37 2037	31-Mar-38 2038	31-Mar-39 2039	31-Mar-40 2040	31-Mar-41 2041
1.72	1.83	1.94	2.07	2.20	2.34	2.49	2.64	2.81	3.00	3.19	3.39	3.61	3.85	4.09
0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.16	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.18
2.44	2.46	2.47	2.47	2.46	2.44	2.42	2.40	2.38	2.36	2.34	2.32	2.30	2.28	2.26
4.33	4.46	4.59	4.72	4.85	4.98	5.11	5.24	5.37	5.50	5.63	5.76	5.89	6.02	6.15
0.47	0.44	0.41	0.38	0.35	0.32	0.30	0.28	0.26	0.24	0.22	0.21	0.19	0.18	0.16

31-Mar-27 2027	31-Mar-28 2028	31-Mar-29 2029	31-Mar-30 2030	31-Mar-31 2031	31-Mar-32 2032	31-Mar-33 2033	31-Mar-34 2034	31-Mar-35 2035	31-Mar-36 2036	31-Mar-37 2037	31-Mar-38 2038	31-Mar-39 2039	31-Mar-40 2040	31-Mar-41 2041
1.98	2.00	2.01	2.03	2.04	2.05	2.08	2.09	2.11	2.12	2.14	2.16	2.18	2.19	2.21
-0.84	-0.85	-0.86	-0.23	-0.23	-0.23	-0.23	-0.24	-0.24	-0.24	-0.24	-0.10	0.00	0.00	0.00
6.32	6.46	6.60	4.92	5.08	5.25	5.41	5.59	5.79	6.00	6.21	6.02	5.98	6.25	6.49

3/5
 श्री. वी. उत्तम / C. V. ANAND
 General Manager (Commercial)
 एन.पी.सी. लिमिटेड / NTPC Limited
 कोर-6, एन.पी.सी. बिल्डिंग / Core-6, 4th Floor
 नया दिल्ली / New Delhi

Z. KHAN
 AGM (ES-COST ENGRG)
 NTPC-CC

CHIEF GENERAL MANAGER
 P&M M&IPC
 ASPDCL :: TIRUPATI

Discount Factor 1.00 0.93 0.86 0.80 0.74 0.69 0.64 0.59 0.55 0.51

Levelised Tariff without AD 6.62
 Accelerated Depreciation Benefits 0.47
 Levelised Tariff with AD 6.16

Project IRR with AD Benefits 10.59%
 Project IRR without AD Benefits 8.08%
 WACC 7.81%

Sensitivity Analysis

Interest Rate 9.00%

Equity Contribution 20.00%

Levelised Tariff with AD	5.16	8.00%	9.00%	10.00%	11.00%
Levelised Tariff without AD	6.52	6.04	6.16	6.28	6.40
Project IRR with AD Benefits	10.59%	6.47	6.62	6.78	6.95
WACC	7.81%	10.59%	10.59%	10.51%	10.41%
		7.28%	7.81%	8.33%	8.85%

[Signature]
 CHIEF GENERAL MANAGER
 P&M M&IPC
 APSPDCL :: TIRUPATI

[Signature]
 Z. KHAN
 AGM (EE-CST ENGG)
 NTPC - CC

[Signature]
 श्री. वी. आनन्द / C. V. ANAND
 महा प्रबंधक (व्यापिक)
 General Manager (Commercial)
 एन.टी.पी.सी. लिमिटेड / NTPC Limited
 को. 0. एन.टी.पी.सी. बिल्डिंग 5. 4th Floor
 7, Patel Estate Road, Connaught Place Complex
 लोदी रोड, नई दिल्ली / Lodhi Road, New Delhi-3

0.44 0.41 0.38 0.35 0.32 0.30 0.28 0.26 0.24 0.22 0.21 0.19 0.18 0.15



Z. KHAN
AGM (ES-COST ENGG)

CHIEF GENERAL MANAGER
P&M M&IPC
APSPDCL :: TIRUPATI



सी. वी. आनन्द/C. V. ANAND
महा प्रबंधक (व्यापिक)
General Manager (Commercial)
एनटीपीसी लिमिटेड/NTPC Limited
कोर-6, चतुर्थ तल/ Core-6, 4th Floor
7, स्कोप कॉम्प्लेक्स/7, SCOPE Complex
लोधी रोड, नई दिल्ली-3/Lodhi Road, New Delhi-3