

### తెలంగాಣ तेलंगाना TELANGANA

SL. No. 12/52 Date: 02-08-2016 Rs.100/-

Sold to: G. Anil

S/o: G. David R/o Hyderabad For Whom: Natco Power Pvt Ltd

### M. 8 Stattle 21894!

#### M. SARITHA DEVI

LICENCED. STAMP VENDOR
LIC. No: 16 - 04 - 1/2005
REN. No. 16 - 04 - 32/2011
H. No.8-3-903/F/1.Opp.Image Hospital.
Nagarjuna Nagar Road, Ameerpet.
HYDERABAD (SOUTH) DISTRICT.
Phone No: 040-23759009, 9290118899.

# POWER PURCHASE AGREEMENT BETWEEN SOUTHERN POWER DISTRIBUTION COMPANY OF A.I

SOUTHERN POWER DISTRIBUTION COMPANY OF A.P. LIMITED AND

M/S. NATCO POWER PRIVATE LIMITED

This Power Purchase Agreement (the "Agreement") entered into this day of August 2016 between Southern Power Distribution Company of AP Limited (DISCOM), incorporated by the Government of Andhra Pradesh in accordance with the Andhra Pradesh Electricity Reform Act 1998 (Act No.30 of 1998), under the provisions of Companies Act, 1956, having its office at 19-13-65/A, Ragavendra Nagar, Kesavayana Gunta, Tiruchanoor Road Tirupati, Pin – 517501,AP, India, hereinafter referred to as the "DISCOM" (which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) as first party, and M/s NATCO Power Private Limited, a company incorporated under companies Act, 1956, having

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC
APSPDCL :: TIRUPATI

1

registered office at NATCO House Road #2, Banjara Hills, Hyderabad – 500 034 India, hereinafter referred to as the "Wind Power Producer" (which expression shall, unless repugnant to the con-text or meaning thereof, include its successors and assigns) as second party.

- 2. WHEREAS, the Wind Power Producer is setting up the Renewable Energy Project i.e., the 1.6 MW capacity Wind power Betamcherla in Kurnool District, Andhra Pradesh (hereafter Project,) with a proposal of 0.008 MW for Auxiliary Consumption MW for export to grid for Sale to DISCOM as detailed in Schedule I attached herewith, and New and Renewable Energy Development Corporation of Andhra Pradesh Limited hereafter referred to as M/s NREDCAP has accorded approval to the said project in their proceedings No. NREDCAP/WE/EEIPL/7202/2015, dt.24.07.2015, & NREDCAP/WE/EEIPL/7202/2016, dt.19.05.2016 and the Wind Power Producer has entered into an Agreement with NREDCAP on 19.05.2016 and the copies whereof are attached herewith as Schedule-II and Schedule III respectively;
- 3. WHEREAS, it has been agreed that the Project will be designed, engineered and constructed and operated by or on behalf of the Wind Power Producer or its successors with reasonable diligence subject to all Indian laws, rules, regulations and orders having the force of law;
- 4. Whereas, the proposed Project is being setup at Betamcherla in Kurnool District, and will be connected to the designated sub-station i.e., Dhone sub-station at 33KV voltage level for power evacuation from wind power projects by erecting an exclusive 33KV group feeder. The project will share a common metering on the above feeder at the designated sub-station. The project will also have a separate group metering at project's switchyard.
- 5. The terms and conditions of the Agreement are subject to the provisions of the Electricity Act, 2003 (36 of 2003) and the amendments made to the act from time to time, and also subject to regulation by the APERC.
- 6. NOW THEREFORE, in consideration of the foregoing premises and their mutual covenants herein, and for other valuable consideration, the receipt and sufficiency of which are acknowledged, the parties hereto, intending to be legally bound hereby agree as follows:

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

## ARTICLE 1 DEFINITIONS

As used in this Agreement, the following terms shall have the meanings set forth herein below. Defined terms of singular number shall include the plural and vice-versa.

- 1.1 AP**TRANSCO:** Transmission Corporation of Andhra Pradesh Limited, incorporated by the Government of Andhra Pradesh.
- 1.2 Billing Date: means the fifth (5th) day after the Meter Reading Date.
- 1.3 **Billing Month:** means the period commencing from 25th of the calendar month and ending on the 24th of the next calendar month.
- 1.4 **Commercial Operation Date (COD):** means, with respect to each Generating unit, the date on which such Generating unit is declared by the Wind Power Producer to be operational, provided that the Wind Power Producer shall not declare a Generating unit to be operational until such Generating unit has completed its performance acceptance test as per standards prescribed.

**Explanation:** In respect of Non-conventional based power projects the date of synchronisation of the first unit of the project will be treated as the Commercial Operation Date of the project.

1.5 **Delivered Energy:** means, with respect to any Billing Month, the kilo watt hours (kWh) of electrical energy generated by the Project and delivered to the DISCOM at the Interconnection Point as defined in Article 1.10, as measured by the common energy meter at the Interconnection Point during that Billing Month. As indicated in the preamble, the delivered energy recorded by the common meter shall be sum of energy delivered by all Wind power projects connected to the Pooling Substation.

**Explanation 1:** For the purpose of clarification, Delivered Energy, excludes all energy consumed in the Project, by the main plant and equipment, lighting and other loads of the Project from the energy generated and as recorded by energy meter at Interconnection Point.

**Explanation 2:** The delivered energy in a Billing Month shall be limited to the energy calculated based on the Capacity agreed for export to network for sale to DISCOM as mentioned in Preamble and Schedule – 1, multiplied with number of hours and fraction thereof the project is in operation during that billing month. In case any excess energy is delivered no payment shall be made for the same.

FOR NATCO POWER PRIVATE LIMITED

3

CHIEF GENERAL MANAGER
P & MM & IPC
APSPECL :: TIRUPATI

**Explanation 3:** The Delivered Energy will be equal to energy recorded by the individual meter at Project's switchyard minus apportioned line losses from Project's switchyard to meter at 132/33 KV Dhone Sub-station and shall be calculated as per the formula mentioned below:

Where

X1 is the reading of the energy meter installed at the Project's switchyard.

Z% is the line loss incurred in the transmission line between the Project and the interconnected Substation and shall be:

$$\mathbf{z} = \frac{(X1 + X2 + X3 + X4 + ____) - Y}{(X1 + X2 + X3 + X4 + ____)}$$
Where

Y is the reading of the common energy meter installed on the 33KV side of the interconnected Substation, X1, X2, X3, X4 etc. are the readings of the energy meters installed at the various individual Wind power projects being developed/proposed to be set up in the area and connected to the Pooling Substation.

- 1.6 **Due Date of Payment:** means the date on which the amount payable by the DISCOM to the Wind Power Producer hereunder for Delivered Energy, if any, supplied during a Billing Month becomes due for payment, which date shall be thirty (30) days from the Meter Reading Date provided the bill is received by DISCOM within 5 days from Meter Reading Date, and in the case of any supplemental or other bill or claim, if any, the due date of payment shall be thirty (30) days from the date of the presentation of such bill or claim to the designated officer of the DISCOM.
- 1.7 **Financial Year:** shall mean, with respect to the initial Fiscal Year, the period beginning on the Commercial Operation Date and ending at 12.00 midnight on the following March 31. Each successive Financial Year shall begin on April 1 and end on the following March 31, except that the final Fiscal Year shall end on the date of expiry of the Term or on termination of this Agreement, whichever is earlier.
- 1.8 **Installed Capacity:** means the total rated capacity in MW of all the Wind Energy Generators installed by the Wind Power Producer.
- 1.9 Interconnection Facilities: means all the equipment and facilities, including, but not limited to, all metering facilities, switch gear, substation

N. SADASIVA RAO

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

facilities, transmission lines and related infrastructure, to be installed at the voltage specified in Article 1.20 at the Wind Power Producer's expense from time to time throughout the term of this Agreement, necessary to enable the DISCOM to economically, reliably and safely receive Delivered Energy from the Project in accordance with the terms of this Agreement. As indicated in the preamble, the interconnection facilities beyond Project's switchyard shall be common for Wind Power Producer and other Wind power projects connected to the Pooling point.

- 1.10 **Interconnection Point:** means the point or points where the Project and the DISCOM (APCPDCL)/APTRANSCO grid system are interconnected. For this project, interconnection point is at the designated sub-station i.e., 132/33KV Dhone sub-station. The metering for the project will be provided at the interconnection point as per Article 4.1. As indicated in the preamble of this Agreement, interconnection point for this project is common with other wind power projects connected to the designated sub-station.
- 1.11 **Meter Reading Date:** means mid-day (i.e., noon) of the 24th (twenty-fourth) day of each calendar month, at the Interconnection Point.
- 1.12 **Metering Point:** means points where metering shall be provided for Project and shall be as follows:
- (i) Common meter provided at the Interconnection Point for purposes of recording of Delivered Energy of the Project;
- (ii) Individual meter provided at Project's switchyard;
- (iii) Metering point shall include two separate sets of 0.2 /0.2S class accuracy electronic tri-vector meters as specified in Article 4.1, main meter installed by the Wind Power Producer and the check meter installed by the DISCOM and both sealed by the DISCOM, having facilities to record both export and import of electricity to / from the grid.
- 1.13 **Project:** means the 1.6 MW capacity Wind power project at Betamcherla in Kurnool District, Andhra Pradesh with a proposal of 0.008 MW for Auxiliary Consumption and 1.592 MW for export to network for Sale to DISCOM as entrusted to the Wind Power Producer for construction and operation as detailed in Agreement entered into with NREDCAP as shown in Schedule III attached herewith and includes the metering system.
- 1.14 **Prudent Utility Practices:** means those practices, methods, techniques and standards, that are generally accepted for use in electric utility industries taking into account conditions in India, and used in prudent electric utility engineering and operations to design,

FOR NATCO POWER PRIVATE LIMITED

M. SADASIVA RAO Director CHIEF GENERAL MANAGER

engineer, construct, test, operate and maintain equipment lawfully, safely, efficiently and economically as applicable to power stations of the size, service and type of the Project, and that generally conform to the manufacturers' operation and maintenance guidelines.

- 1.15 SLDC: means the State Load Dispatch Center as notified by the State Government under the provisions of the Electricity Act 2003.
- 1.16 System **Emergency:** means a condition affecting the APTRANSCO's/DISCOM's electrical network which threatens the safe and reliable operation of such system or which is likely to result in the disruption of safe, adequate and continuous electric supply by the APTRANSCO/DISCOM, or which endangers life or property, which condition is affected or aggravated by the continued delivery of Delivered Energy from the Project.
- 1.17 Surcharge on Reactive Power drawn by Wind Farms: means the charges leviable on the reactive power drawn by Wind Farms at the rate of 25 paise (twenty five paise) per KVARh of reactive energy drawn from grid upto 10% of net active energy generated and 50 paise per KVARh for total drawl if reactive energy drawn is more than 10% of net active energy generated. The above mentioned rates are subject to revision as per APERC orders from time to time. The reactive power drawn as recorded by meters at interconnection point includes the reactive power drawn by all the Wind Power Producers in the cluster. As such the reactive power recorded by the meters at the interconnection point shall be shared by all the individual power producers in the ratio of the active energy delivered by them individually.

**Explanation 1:** Induction generators used in Wind Farms draw reactive power from grid during generator mode and motor mode.

**Explanation 2:** Surcharge on reactive power drawn by Wind Farms will be levied on the Wind Power Producer.

- 1.18 **Unit:** When used in relation to the generating equipment, means one set of turbine generator and auxiliary equipment, and facilities forming part of the project and when used in relation to electrical energy, means kilo watt hour (kWh).
- 1.19 **Voltage of Delivery:** means the voltage at which the electrical energy generated by the project is required to be delivered to the APTRANSCO at the Interconnection Point and the Voltage of Delivery is as detailed below:

For NATCO POWER PRIVATE LIMITED

SADASIVA RAO

P & MM & IPC

### (Note: Insert Table A or Table B whichever is applicable) TABLE - A

#### At 33 KV level:

Project interfacing		Specified type of	Proposed Wind	
From	То	AAAC Conductor (size)	power capacity on each 33 KV line	
Wind project	Existing 33/11 KV DISCOM SS	55 sqmm	8 MW	
		100 sqmm	10 MW*	
		150 sqmm		
Wind project	EHT Pooling SS or existing EHT APTRANSCO SS	55 sqmm	8 MW	
		100 sqmm	12 MW	
		150 sqmm	17 MW**	

<sup>\*</sup> Capacity is restricted considering less load availability in DISCOM SS.

This Project will generate electrical energy at 690 Volts, which will be stepped up to 33 KV at Project's switchyard and interconnected to the designated sub-station 132/33 KV Dhone SS of APTRANSCO at 33 KV voltage level for power delivered to the grid.

1.20 All other words and expressions, used herein and not defined herein but defined in Indian Electricity Rules 1956, AP Electricity Reform Act, 1998 and the Electricity Act, 2003 shall have the meanings respectively assigned to them in the said Acts.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

<sup>\*\*</sup> As amended vide Commission's order dated 11-07-2012 in O.P.No. 7 of 2012 read with letter dated 04-06-2014 attached herewith as Schedule - IV

## ARTICLE 2 PURCHASE OF DELIVERED ENERGY AND TARIFF

- 2.1 All the Delivered Energy at the interconnection point for sale to DISCOM will be purchased at the tariff provided for in Article 2.2 from and after the date of Commercial Operation of the Project. Title to Delivered Energy purchased shall pass from the Wind Power Producer to the DISCOM at the Interconnection Point.
- 2.2 The Wind Power Producer shall be paid tariff for energy delivered at the interconnection point for sale to DISCOM, which shall be firm at Rs.4.84 per unit without considering Accelerated Depreciation for a period of 25 Years from the Commercial Operation Date (COD) as per APERC order dated 26.03.2016 in O.P. No. 13 of 2016.
- 2.3 Tariff Determined under these regulations shall be exclusive of taxes and duties as may be levied by the Government.
  - Provided that the taxes and duties levied by the Government shall be allowed as pass through on actually incurred basis.
- 2.4 Income Tax/ MAT is a pass through and is to be paid by the Distribution Licensees to the developer upon receipt of the claim from the developer. This is over and above the tariff determination made here in.
  - Electricity Duty is a pass through and is to be paid by the Distribution Licensees to the developer upon receipt of the claim from the developer. This is over and above the tariff determination made herein.
- 2.5 Where in any Billing month, the energy supplied by the DISCOM to the Wind Power Producer as a bilateral arrangement to maintain the Auxiliaries in the power plant in situations of non-generation of power, shall be billed by the DISCOM, and the Wind Power Producer shall pay the DISCOM for such electricity supplies, at the DISCOM's then-effective tariff applicable to High Tension Category-I Consumers. For this purpose, the maximum demand specified in such DISCOM's Tariff shall be computed by dividing the amount of such energy supplied by the DISCOM by hours of drawl of power from the grid in the Month.

**Explanation:** The Wind plants during the plant shut down periods shall draw the energy from DISCOM only for the essential loads not exceeding auxiliary consumption.

For NATCO POWER PRIVATE LIMITED

VI SADASIVA RAD

Director

CHIEF GENERAL MANAGER P & MM & IPC

### ARTICLE 3 INTERCONNECTION FACILITIES

- 3.1 Upon receipt of a requisition from the Wind Power Producer, the APTRANSCO and DISCOM will prepare an estimate for arranging interconnection facilities for power evacuation at the voltage level as per Article 1.20. The Wind Power Producer have to bear the entire cost of the interconnection facilities as per the sanctioned estimate. The APTRANSCO and DISCOM shall evaluate, design, and install the Interconnection Facilities and perform all work, at the Wind Power Producer's expense, necessary to economically, reliably and safely connect the grid system to the Project switch yard.
- 3.2 APTRANSCO and DISCOM may also permit the Wind Power Producer to execute the interconnection facilities for power evacuation as per the sanctioned estimate at it's discretion duly collecting the supervision charges as per procedure in vogue.
- 3.3 The Wind Power Producer shall own, operate and maintain interconnection facilities from Project to Pooling Substation from time to time and necessary expenditure shall have to be borne by the Wind Power Producer. The maintenance work on the Generating units has to be done in coordination with the APTRANSCO and DISCOM.
- 3.4 The Wind Power Producer shall agree to pay to the DISCOM, on or before signing of this Agreement, at the rate of Rs.37,000/- per MW of Installed Capacity and for fractions thereof on a pro-rata basis as a one time lump sum payment for the sole purpose of providing the required MVAR capacity at the Substation of the APTRANSCO/DISCOM to which the Project is interconnected to supply the requisite reactive power to the Grid System. APTRANSCO/DISCOM shall install the capacitors of required capacity, at the substation of the APTRANSCO and DISCOM to which the project is interconnected before commercial operation date of the project.
- 3.5 Any modifications or procedures or changes in arranging interconnection facilities for power evacuations rest with APTRANSCO and DISCOM.
- 3.6 During the period prior to the Commercial Operation Date, on the request of the Wind Power Producer, the DISCOM will supply energy to the Project for internal consumption, on the Terms and Conditions and at the tariff rates that are applicable from time to time to the category of consumers of the DISCOM to which the Wind Power Producer belongs, provided separate metering arrangements as may be required under the Terms and Conditions of such tariff have been installed at the Project.

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

P & MM & IPC
APSPDCL :: TIRUPATI

## ARTICLE 4 METERING AND PROTECTION

- 4.1 The Wind Power Producer shall install main meters of Static type 0.2 / 0.2S class accuracy at the Metering Point and the DISCOM shall install check meters of Static type at the same point and of the same accuracy. The main meters and check meters will each consist of a pair of export and import meters with facility for recording meter readings using Meter Recording Instrument. For the purpose of uniformity the Wind Power Producer shall follow metering specifications as developed by the DISCOM from time to time.
- 4.2 All of the meters required to be installed pursuant to Article 4.1 above shall be jointly inspected and sealed on behalf of both parties and shall not be interfered with, tested or checked except in the presence of representatives of both parties.
- 4.3 The meter readings from the main meters will form the basis of billing. If any of the meters required to be installed pursuant to Article 4.1 above are found to be registering inaccurately the affected meter will be immediately be replaced.
- 4.4 Where the half yearly meter check indicates an error in one of the main meter/meters beyond the limits for such meter but no such error is indicated in the corresponding check meter/meters, billing for the month will be done on the basis of the reading on the check meter/meters and the main meter will be replaced immediately.
- 4.5 If during the half yearly test checks, both the main meters and the corresponding check meters are found to be beyond permissible limits of error, both the meters shall be immediately replaced and the correction applied to the consumption registered by the main meter to arrive at the correct delivered energy for billing purposes for the period of the one month up to the time of such test check, computation of delivered energy for the period thereafter till the next monthly meter reading shall be as per the replaced main meter.
- 4.6 Corrections in delivered energy billing, whenever necessary, shall be applicable to the period between the previous monthly meter reading and the date and time of the test calibration in the current month when the error is observed and this correction shall be for the full value of the absolute error. For the purpose of determining the correction to be applied to any meter registering inaccurately, the meter shall be tested under conditions simulating 100, 50, 20 and 10 percent load at unity power factor and 0.5 power factor. Of these eight values, the error at the load and power factor

FOR NATCO POWER PRIVATE LIMITED.

N. SADASIVA RAO

P & MM & IPC
APSPDCL :: TIRUPATI

nearest the average monthly load served at the Interconnection Point during the applicable period shall be taken as the error to be applied for correction.

- 4.7 If both the main and check meters fail to record or if any of the PT fuses are blown out, then the energy will be computed on a mutually agreeable basis for that period of defect.
- 4.8 The main and check meters shall be tested and calibrated once in a Financial year utilizing a Standard Meter. The Standard Meter shall be calibrated once in every year at the approved Laboratory by Government of India / Government of Andhra Pradesh, as per Terms and Conditions of supply.
- 4.9 All main and check meters tests shall be jointly conducted by the authorized representatives of both parties and the results and correction so arrived at mutually will be applicable and binding on both the parties.
- 4.10 On the Meter Reading Date of each month, meter readings shall be taken (and an acknowledgement thereof signed) by the authorized representatives of both parties.
- 4.11 Within six (6) months following the execution of this Agreement, the Wind Power Producer and the DISCOM shall mutually agree to technical and performance specifications (including, but not limited to, the metering configuration for the Project) concerning the design and operation of the facilities required to be installed by the Wind Power Producer in order for the Wind Power Producer to operate in parallel with the grid. Thereafter, any change in such specifications shall be subject to mutual agreement of the parties.
- 4.12 The Project shall be operated and maintained in accordance with good and generally accepted utility standards with respect to synchronizing, voltage, frequency and reactive power control.
- 4.13 Voltage regulation shall be such as to enable continued paralleling and synchronisation with the network voltage at the point of interconnection.
- 4.14 The equipment of the Wind Power Producer shall be designed for fluctuations in the frequency within limits of -5% and +3% of the standard frequency of 50 cycles per second.
- 4.15 The Wind power developer shall ensure that the power factor of the power delivered to the DISCOM is maintained as per the APERC/CEA/CERC norms from the time to time.

11

FOR NATCO POWER PRIVATE LIMITED

SADASIVA RAO Director

CHIEF GENERAL MANAGER
P & MM & IPC

- 4.16 Any change in rupturing capacity of switch-gear, settings of the relays, etc., shall be subject to approval of the DISCOM.
- 4.17 As the Project's generator may carry fault currents that may occur on the grid, the Wind Power Producer shall provide adequate generator and switchgear protection against such faults. The DISCOM is not responsible for damage, if any, caused to the Project's generator and allied equipment during parallel operation of the generator with the grid.
- 4.18 The Wind Power Producer shall make a good faith effort to operate the Project in such a manner as to avoid fluctuations and disturbances to the APTRANSCO's / DISCOM's network due to parallel operation with the network.
- 4.19 The Wind Power Producer shall control and operate the Project as per Prudent Utility Practices. The DISCOM shall only be entitled to request the Wind Power Producer to reduce electric power and energy deliveries from the Project during a System Emergency, and then only to the extent that in the DISCOM's reasonable judgment such a reduction will alleviate the emergency. The DISCOM shall give the Wind Power Producer as much advance notice of such a reduction as is practicable under the circumstances and shall use all reasonable efforts to remedy the circumstance causing the reduction as soon as possible. Any reduction required of the Wind Power Producer hereunder shall be implemented in a manner consistent with safe operating procedures.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC
APSPDCL :: TIRUPATI

12

### ARTICLE 5 BILLING AND PAYMENT

- 5.1 For Delivered Energy purchased, Wind Power Producer shall furnish a bill to the DISCOM calculated at the rate provided for in Article 2.2, in such form as may be mutually agreed between the DISCOM and the Wind Power Producer, for the billing month on or before the 5th working day following the Meter Reading Date.
- 5.2 The DISCOM shall be entitled to a rebate of 1% of the total amount billed in any billing month for payments made before the due date of payment. Any payment made beyond the due date of payment, DISCOM shall pay interest at existing SBI base rates plus one percent and in case this rate is reduced, such reduced rate is applicable from the date of reduction.
- 5.3 The DISCOM shall pay the bill on monthly basis as per Article 5.1.
- 5.4 **Letter of Credit:** Not later than 30 days prior to the Scheduled COD of the Generating Unit, DISCOM shall cause to be in effect an irrevocable revolving Letter of Credit issued in favour of Wind Power Developer for a minimum period of one year by a Scheduled Bank (the "Letter of Credit").
- a. However Letter of Credit shall not be invoked for any disputed bill amount.
- 5.5 **Direct payment:** Wind developer shall submit bills for the energy delivered during the billing period as per the provision of this PPA and there upon DISCOMs shall make payment for the eligible bill amount by the due date of payment.
- 5.6 **Billing disputes:** The DISCOM shall pay the bills of Wind Power Producer promptly subject to the clauses 5.1 and 5.2 above.

The DISCOM shall notify Wind Power Producer in respect of any disallowed amount on account of any dispute as to all or any portion of the bill. Wind Power Producer shall immediately take up issue with all relevant information with DISCOM which shall be rectified by the DISCOM, if found satisfactory. Otherwise notify its (DISCOM's) rejection of the disputed claim within reasonable time with reasons therefor. The dispute may also be decided by mutual agreement. If the resolution of any dispute requires the DISCOM to reimburse Wind Power Producer, the amount to be reimbursed shall bear interest at SBI base rates plus one percent and in case this rate is reduced, such reduced rate is applicable from the date of reduction from the date of disallowance to the date of reimbursement.

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

P & MM & IPC

5.7 All payments by the DISCOM to Wind Power Producer hereunder shall be made to such address as may be designated by Wind Power Producer to the DISCOM in writing from time to time.

Address

: NATCO Power Private Limited

Natco House, Road #2, Banjara Hills, Hyderabad - 500 034

Telephone

: 914023547532

Fax

: 914023548243

Mobile No.

: 9866005204

Email id

: sada@natcopharma.co.in

For NATCO POWER, PRIVATE LIMITED

N. SADASIVA RAO

CHIEF GENERAL MANAGER

## ARTICLE 6 UNDERTAKING

- 6.1 The Wind Power Producer shall be responsible:
- (i) For proper maintenance of the project in accordance with established prudent utility practices.
- (ii) For operation, maintenance, overhaul of the plant, equipment, works, switch yard and transmission lines and equipment up to the Interconnection Point of the project in close coordination with the DISCOM.
- (iii) The Wind Power Producer shall furnish the generation and maintenance schedules every year.
- (iv) For making all payments on account of any taxes, cess, duties or levies imposed by any Government or competent statutory authority on the land, equipment, material or works of the project or on the energy generated or consumed by the project or the Wind Power Producer or on the income or assets of the Wind Power Producer.
- (v) For obtaining necessary approvals, permits or licences for operation of the project and sale of energy to DISCOM there from under the provision of the relevant laws.
- (vi) The Wind Power Producer have to comply with the provisions of the AP Code of Technical Interface (Grid Code).
- (vii) For achieving Commercial Operation Date within two years from the date of signing of the Agreement.
- (viii) For seeking approval of APTRANSCO and DISCOM in respect of Interconnection Facilities, Pooling Substation and synchronization of the Project with grid.
- (ix) The Wind Power Producer shall not dismantle and take away project machinery and interconnection facilities during the PPA term.
- (x) After 25th year of the operation from Commercial Operation Date, if plant continues to operate, the DISCOM shall have the first right of refusal on power purchase from the Wind power plant. The tariff beyond 25th year shall be as mutually agreed by both the parties, subject to approval of APERC.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

P & MM & IPC

APSPDCL:: TIRUPATI

15

(xi) Sharing of Clean Development Mechanism (CDM) benefits:

The Proceeds of carbon credit from approved CDM Project shall be shared between generating company and concerned beneficiaries in the following manner namely.

- (a) 100% of the gross proceeds on account of CDM benefits is to be retained by the project developer in the first year after the date of commercial operation of the generating station.
- (b) In the second year, the share of the beneficiaries shall be 10 % which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the generating company and the beneficiaries.

#### 6.2 The DISCOM agrees:

- (i) To make all reasonable efforts for making arrangements for evacuation of power from the project to be completed prior to the Commercial Operation Date of the Project subject to Article 3.
- (ii) For purchase of Delivered Energy from the project as per section 2.2.
- (iii) To co-ordinate with APTRANSCO and assist the Wind Power Producer in obtaining approval for the interconnection facilities where the interconnection is at 132 kV or above voltages, for synchronization, Commercial Operation, regular operation etc., as required by the Wind Power Producer.

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER P & MM & IPC

## ARTICLE 7 DURATION OF AGREEMENT

This Agreement shall be effective upon its execution and delivery thereof between parties hereto and shall continue in force from the Commercial Operation Date (COD) and until the twenty fifth (25th) anniversary that is for a period of twenty five years from the Commercial Operation Date (COD). This Agreement may be renewed for such further period of time and on such terms and conditions as may be mutually agreed upon by the parties, 90 days prior to the expiry of the said period of twenty five years, subject to the consent of the APERC. Any and all incentives/conditions envisaged in the Articles of this Agreement are subject to modification from time to time as per the directions of APERC.

FOR NATCO POWER PRIVATE LIMITED

M. SADASIVA RAO Director

CHIEF GENERAL MANAGER P & MM & IPC

## ARTICLE 8 NOTICES

8.1 Except as otherwise expressly provided in this Agreement, all notices or other communications which are required or permitted hereunder shall be in writing and sufficient if delivered personally or sent by registered or certified mail, email or fax addressed as follows:

#### If to the Wind Power Producer:

Attention

NATCO Power Private Limited

Natco House, Road #2, Banjara Hills,

Hyderabad - 500 034

Telephone

: 914023547532

Fax

: 914023548243 : 9866005204

Mobile No. Email id

: sada@natcopharma.co.in

Attention

: Chief General Manager, (IPC & P&MM)

APSPDCL,

19-13-65-A, Corporate Office,

Ragavendra Nagar, Kesavayana Gunta,

Tiruchanoor Rd, Tirupati - AP, India - 517501

Fax No.

: 0877-2237407

Telephone No.

: 0877-2237407

Email id

: gmipcspdcl@gmail.com

8.2 All notices or communications given by email, fax shall be confirmed by depositing a copy of the same in the post office in an envelope properly addressed to the appropriate party for delivery by registered or certified mail. All notices shall be deemed delivered upon receipt, including notices given by email, fax regardless of the date the confirmation of such notice is received.

8.3 Any party may by written notice change the address and/or addresses to which such notices and communications to it are to be delivered or mailed.

FOR NAICO POWER PRIVATE LIMITED

N. SADASIVA RAO

P & MM & IPC

APSPDCL :: TIRUPATI

CHIEF GENERAL MANAGER

## ARTICLE 9 DEFAULT

- 9.1 The Wind Power Producer shall achieve Commercial Operation Date within two years from the date of signing of the Agreement, default of which, the Agreement is liable for termination and the same can be done at the option of DISCOM with due notice.
- 9.2 In the event, DISCOM commits a breach of any of the terms of this Agreement, the Wind Power Producer shall be entitled to specific performance of this Agreement or claim such damages as would be available under Law or both, at its option, by giving 30 days notice to DISCOM.
- 9.3 In the event, Wind Power Producer commits a breach of any of the terms of this Agreement, the DISCOM shall be entitled to specific performance of this Agreement or claim such damages as would be available under Law or both, at its option, by giving 30 days notice to Wind Power Producer.
- 9.4 If the default continues for a period of 30 days or more, either party will have a right to issue a preliminary notice for termination of this Agreement. If the default is not cured within 30 days thereafter, either party can terminate this Agreement and can claim damages at its option.

9.5 In the event of cancellation of the Project allotted to the Wind Power Producer by NREDCAP for any reason, the PPA with DISCOM will automatically get cancelled;

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

## ARTICLE 10 DISPUTE RESOLUTION

- 10.1 Each Party shall designate in writing to the other party a representative who shall be authorized to resolve any dispute arising under this Agreement in an equitable manner.
- 10.2. Following notice by one Party to the other setting out the particulars of the dispute, if the designated representatives are unable to resolve a dispute under this Agreement within 15 days, such dispute shall be referred by such representatives to a senior officer designated by the Wind Power Producer and a senior officer designated by the DISCOM, respectively, who shall attempt to resolve the dispute within a further period of 15 days.
- 10.3. The Parties hereto agree to use their best efforts to attempt to resolve all disputes arising hereunder promptly, equitably and in good faith and further agree to provide each other with reasonable access during normal business hours to any and all non-privileged records, information and data pertaining to any such dispute.

10.4 Failing resolution of the dispute in terms of the above provisions or even otherwise, any party may approach the AP Electricity Regulatory Commission to adjudicate upon the dispute in terms of Section 86 (1) (f) of Electricity Act, 2003.

FOR NATCO POWER PRIVATE LIMITEL

N. SADASIVA RAO

P& MM & IPC

## ARTICLE 11 SPECIAL PROVISIONS

11.1 The waiver of any breach or failure to enforce any of the terms, covenants or conditions of this Agreement shall not in any way affect, limit, modify or waive the future enforcement of such terms, covenants or conditions.

11.2 No oral or written modification of this Agreement either before or after its execution shall be of any force or effect unless such modification is in writing and signed by the duly authorized representatives of the Wind Power Producer and the DISCOM, subject to the condition that any further modification of the Agreement shall be done only with the prior approval of Andhra Pradesh Electricity Regulatory Commission. However, the amendments to the Agreement as per the respective orders of APERC from time to time shall be carried out.

11.3 However, in respect of power evacuation, the voltage levels for interfacing with grid will be as per Article 1.20. The cost of interconnection facilities has to be borne by the Wind Power Producer as per Article 3.

11.4 The invalidity or unenforceability for any reason of any provision of this Agreement shall not prejudice or affect the validity or enforceability of any other provision of this Agreement.

11.5 The failure of any party to insist in one or more instances upon the strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or relinquishment of any such rights but the same shall continue in full force and effect.

11.6 Unless the context otherwise requires, every arrangement, procedure or any other matter which is, under any of the provisions of this Agreement, required to be mutually agreed upon between the parties, shall be concluded by a written Agreement between the parties not later than the date specified

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director

CHIEF GENERAL MANAGER P & MM & IPC

in the concerned clause of this Agreement, subject to the consent of the APERC.

11.7 This Agreement, including Schedule 1, 2 & 3 attached hereto, constitute the entire agreement between the parties with respect to the subject matter hereof, and there are no oral or written understandings, representations or commitments of any kind, express or implied, not set forth herein.

11.8 The headings contained herein are included solely for the convenience of the parties and are not to be used as a basis for interpreting the various sections of this Agreement.

11.9 The parties each agree to act in good faith in implementing the terms and conditions of this Agreement and in carrying out their respective obligations hereunder.

11.10 In the event of the merger or re-organisation of DISCOM, if the resulting entity is able to perform DISCOM's obligations hereunder in no less a manner than DISCOM, the resulting entity shall take the right and responsibility for performance of DISCOM's obligations.

11.11 In the event of the merger or re-organisation of Wind Power Producer if the resulting entity is able to perform Wind Power Producer's obligations hereunder in no less a manner than Wind Power Producer, the resulting entity shall take the right and responsibility for performance of Wind Power Producer's obligations.

11.12 **Assignment and Financing:** Neither party shall assign this Agreement or any portion thereof to any third party without the prior written consent of the other party which consent shall not be unreasonably withheld.

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

IN WITNESS WHEREOF, the Wind Power Producer and the DISCOM have caused this Agreement to be executed as of the date and the year first set forth above.

CHIEF GENERAL MANAGER
For and behalf of

SOUTHERN POWER DISTRIBUTION COMPANY

OF A.P.LIMITED

WITNESS

DELPPA 5/8/16 By

2. Its:

FOR NATCO POWER PRIVATE LIMITED

For and behalf of

M/S.NATCO Power Private Limited

WITNESS

1. Theyard

By:

(B.Nagaragu)

2. far Its:

# SCHEDULE 1 Particulars of the Project (Referred to in the Preamble to the Agreement)

Name of the Project	Location	No. of Wind Energy Converters	Capacity of the Project	Capacity export to the grid *
M/s.NATCO Power Private Limited	Betamcherla in Kurnool District  Loc No. SyNo. N3 - 719/1 & 719/2	1 Nos. (1.6 MW)	1.6 MW	1.592

 $<sup>^{*}</sup>$  Out of 1.6 MW, 0.008 MW is for Auxiliary Consumption and 1.592 MW is for export to grid for sale to DISCOM.

FOR NATCO POWER PRIVATE LIMITED

M. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

### SCHEDULE - II

(Copy of sanction proceedings from NREDCAP to the Company)

### SCHEDULE - III

(Copy of agreement entered into by the Company with NREDCAP)

### SCHEDULE - IV

Annexure – I to the Commission's order dated 30-03-2010 in O.P.No. 40 of 2010 and Commission's order dated 11-07-2012 in O.P.No.7 of 2012 and letter dated 04-06-2014 & Regulation No. 1 of 2015 and as per APERC Order dated 26.03.2016 in O.P. No.13 of 2016

FOR NATCO POWER PRIVATE LIMITED

A. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

### ్రాంధ్రప్రదేశ్ నూతన మలయు పునరుద్ధరణీయ ఇంధన వనరుల అభివృద్ధి సంస్థ లి. New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

(A State Government Company)

(Formerly Non-Conventional Energy Development Corporation of Andhra Pradesh Ltd.)
Regd. Office: 5-8-207/2, Pisgah Complex, Nampally, Hyderabad - 500 001. India.

Tel: Off: 040-23202391, 23202262, 23203376 Fax: 040-23201666. E-mail: info@nedcap.gov.in, nedcap@ap.nic.in Website: www.nedcap.gov.in

Ref:- NREDCAP/WE/EEIPL/7202/2015

Dt.24.07.2015

#### **PROCEEDINGS**

Sub: Wind Power Project in private sector - Sanction of 24 MW (14.40 MW + 9.60 MW) capacity Wind farm Power Project at Betamcherla, Kurnool District - Reg

Ref: 1. Applications for allotment of wind farm dt. 24.04.2013 & 03.02.2015

2. G.O. Ms.No.9, Dt. 13.02.2015 of Energy I &I (PR.II) Dept, GOAP

3 Minutes of the 239th Board Meeting held on 28.05.2015.

 This office Lr.No. NREDCAP/WE/EEIP!/816/2013, Dt. 29.04.2013

 This office Lr.No. NREDCAP/WE/EEIPL/7202/2015, Dt. 19.02.2015

6. Lr.No. Nil, dt.17.07.2015 of M/s Ecoren Energy India Pvt. Ltd

#### 888

In the reference 1st cited, M/s Ecoren Energy India Pvt. Ltd., have applied to NREDCAP for allotment of 24 MW (14.40 MW & 9.60 MW) capacity wind power project at Betamcherla, Kurnool District, for generation of electric power on commercial basis.

In the reference 4<sup>th</sup> & 5<sup>th</sup> cited, Provisional Allotment Letter was issued stipulating the terms and conditions for issue of Sanction Letter and for execution of the Agreement. M/s Ecoren Energy India Pvt. Ltd., vide its letter 6<sup>th</sup> cited, have fulfilled the conditions of the Provisional Allotment.

Based on orders of the Govt. and the resolution of the Board of NREDCAP, 24 MW capacity wind power project has been sanctioned to M/s Ecoren Energy India Pvt. Ltd, to set up at Betamcherla, Kurnool District for generation of power on commercial basis. The allotment is accorded subjected to the following conditions.

The allotment of the land and lease of the land shall be subject to Govt.
orders issued in this regard.

2. The wind power project shall be established in the specified area as indicated in the proposal.

FOR NATCO POWER PRIVATE LIMITED

Director

CHIEF GENERAL MANAGER

P & MM & IPC APSPDCL :: TIRUPATI

SADASIVA RAO

- The wind power project allotted now is as per the Wind power policy announced by the Govt. of A.P. vide G.O Ms No.9, Energy Infrastructure & Investment (PR-II) Department, dated 13-02-2015.
- In case of private lands, the company shall make its own arrangements for procurement of land, subject to approval of the area of operation by NREDCAP.
- The Company shall install wind turbines, so as not to affect the performance of the other wind turbines and maintain safety standards in consultation with NREDCAP.
- 6. The company may explore the possibility of installing higher capacity Wind Electric Generators to achieve higher plant load factor.
- The company shall install the Wind Electric Generators under the project, which are having the approval of National Institute of Wind Energy (Formerly C-WET)
- 8. No second hand or used wind turbines, imported from abroad or procured locally shall be installed.
- If there is any change in the proposal submitted along-with the application, the same shall be brought `to the notice of NREDCAP and approval shall be obtained for such changes.
- 10. The wind farm developer should ensure that the wind mill generate grid quality power with power factor not less than 0.85 and should draw minimum reactive power
- 11. The company can sell the projects/ sub-projects to promoters with prior approval of NREDCAP/ Government of Andhra Pradesh, duly complying with the payment of fee and other requirements if any.
- 12. The Company shall abide by the regulations of the Andhra Pradesh Electricity Regulatory Commission (APERC). The proceedings issued by APERC from time to time shall be followed.
- 13. The company shall enter into Power Purchase Agreement or Open access agreement or Wheeling agreement with DISCOMs as per the policy of the Govt. in this regard from time to time.

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC
APSPDCL :: TIRUPATI

- 14. The company shall pay Rs.1.50 Lakhs plus service tax per Megawatt as sanction fee to NREDCAP at the time of entering into agreement.
- 15. The company shall obtain all clearances necessary for installation of wind electric Generators in accordance with statutory provisions, guidelines issued by the Government of India and the Government of Andhra Pradesh from time to time.
- 16. The company shall complete the financial closure within a period of six months from the date of signing of the Agreement or before such extensions as may be accepted and granted by the NREDCAP on request by the company on account of delays in obtaining all necessary consents, licenses, authorizations and clearances required from the Government of Andhra Pradesh and Government of India.
- 17. The company shall execute the work as per terms of the allotment letter and complete within 18 months from the date of achieving the financial closure. In case, the company fails to execute the work within the stipulated time, NREDCAP will recommend to Govt. for the resumption of land and the project allotment will be cancelled.
- 18.At the time of land allotment, the company shall give a schedule of execution of the project. The project must be commissioned within a period of two years from the date of this agreement. The company shall provide an irrevocable bank guarantee of Rs.2,00,000/- (Rupees Two lakhs only) per megawatt in case of Govt. lands and Rs.1,00,000/- (Rupees One lakh only) per MW in case of private lands, at the time of agreement, valid for a period of two years (24 months) or a demand draft drawn in favour of NREDCAP, payable at Hyderabad for an equivalent amount in lieu of Bank guarantee, at the time of agreement. The amount will be adjusted against penalties imposed, if any, due to delay in execution of the project.
- 19. If the company fails to complete the project as per agreed schedule, the penalties will be imposed as per the terms of the agreement and if the project is not commissioned as per the schedule, all permissions including the allotment of land would stand automatically cancelled and the bank guarantee given by the company will be encashed.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC
APSPDCL :: TIRUPATI

- 20. The company shall permit the other wind developers to use the roads and other infrastructure facilities if any on the allotted land and also provide infrastructure and other facilities for conveyance and for transmission of power necessary in that area.
- 21. The company shall permit the officers of the New and Renewable Energy Development Corporation of A.P. Ltd / Government of Andhra Pradesh / Government of India for inspection/verification.
- 22. The company shall prepare an action plan in detail for completion of wind power project allotted within a target period of 2 years and communicate the action plan for each item of work within 3 months from the date of signing of agreement. The company shall submit quarterly progress reports for each quarter ending March, June, September and December. The progress will be reviewed by NREDCAP, based on quarterly report regularly. Based on progress of works against set mile stones, NREDCAP may consider for reduction of Bank guarantee and accordingly to release the proportionate bank guarantee.

The receipt of the letter may be acknowledged.

Sd/V.C & MANAGING DIRECTOR

To
M/s. Ecoren Energy India (P) Ltd,
Plot No. 481, 4<sup>th</sup> floor, 36" Square,
Road No. 36, Jubilee Hills,
HYDERABAD – 500033.

Copy to Chairman and Managing Director, APSPDCL, Tirupati.

Copy to the Chief Engineer, IPC, AP Power Coordination Committee, AP TRANSCO, Hyderabad.

Copy to the District Collector, Kurnool

Copy to the Executive Engineer (WD), NREDCAP, Ananthapur/Kurnool Dists.

PROJECT DIRECTOR (WE) 7/15

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

रु. 100



HUNDRED RUPEES

## रित INDIA INDIA NON JUDICIAL

M. Souther उट्टिल्स तेलंगाना TELANGANA M. SARITHA DEVI seld to ... & Anil LICENCED STAMP VENDOR No. 16-04-1/2005 Ren. No. 16-04-34/20 810. 010. WIO DAYID RID HYD H.Ne: 8-3-903/F Opp: Image Hospital. Negarjune Negar Road, Ameerpet. FOR WHOM EDREN ENERGY PADIA PYT LTD 1 HYD Hyderapack8outh KAst 929011689

**AGREEMENT** 

THIS AGREEMENT is entered into on this day of July, 2015, at Hyderabad, by and between

New and Renewable Energy Development Corporation of Andhra Pradesh Itd., (NREDCAP) a fully owned State Government Company, registered under the Companies Act, 1956, having its office at 5-8-207/2, Pisgah Complex, Nampally, Hyderabad 500 001 (India), represented by its Vice Chairman & Managing Director, NREDCAP which expression shall, unless it be hereinafter referred to as the repugnant to the context or meaning thereof, include its administrators, successors and assigns; of the FIRST PART,

AND

For ECOREN ENERGY INDIA PVT. LTD.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

rised Signator CHIEF GENERAL MANAGER & Manager

P & MM & IPC APSPDCL :: TIRUPATI

OF NATCO POWER PRIVATE LIM

SADASIVA RAO

Director

M/s Ecoren Energy India Pvt. Limited, a company incorporated under the Companies Act, 1956 registered under the Indian Partnership Act 1932, having its registered office at Plot No. 481, 4<sup>th</sup> floor, 36' Square, Road No. 36, Jubilee Hills, Hyderabad— 500033 represented by its Authorised Signatory Sri P. Raghawa, hereinafter referred to as the 'Developer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and permitted assigns, of the SECOND PART.

The NREDCAP and the Developer are severally referred to as the Party and collectively as Parties.

#### WHEREAS,

- NREDCAP is the Nodal Agency for approval of wind energy projects upto 40 A. MW capacity and, therefore, for setting up of wind farms in the Potential Areas in the State of Andhra Pradesh as per the guidelines of the Ministry of New and Renewable Energy (MNRE), Government of India and also the guidelines under the Andhra Pradesh Wind Power Policy-2015 of the Government of Andhra Pradesh (GOAP) notified vide GO MS No.9, Energy Infrastructure & Investment (PR-II) Department, dated 13-02-2015 (hereinafter called the 'Policy') as well. For the projects with more than 40 MW Capacity, the GOAP grants clearance on the recommendations of NREDCAP. The Policy, inter-alia, aims at encouraging optimum utilization of the available wind power potential in the State by facilitating adoption of state of art technology through private participation, balancing the interest of the customers and the developers, permitting the developers for using the power produced for captive consumption or making sale to a third party or to DISCOMs as per the guidelines under the Policy, and the Indian Electricity Act 2003 and the rules and regulations made and the directions issued by GOAP thereunder. Under the Policy the Developer is also eligible for certain incentives and concessions. As per the existing Policy guidelines of NREDCAP, where the Developer is a manufacturer or supplier, such Developer can transfer the capacities allotted to it to any customer provided prior approval of NREDCAP stipulating such of the terms and conditions as it considers necessary and appropriate is obtained.
  - **B.** Under the Policy the Eligible Developers have to approach NREDCAP with the prescribed application for allotment of wind power capacity allotment in the potential areas. After due consideration of the eligibility and other factors, NREDCAP sanctions the capacity in favour of the applicant duly specifying the terms and conditions of sanction. On fulfillment of the conditions of the sanction, the Developer has to approach the Government/District Collector in case the potential area is located in the government lands for allotment of land as recommended by NREDCAP, and in case the potential area is located in private lands the Developer shall acquire the land from the owners.

For ECOREN ENERGY INDIA PVT. LTD.

OF NATCO POWER PRIVATE LIMITED

Authorised Signatory

N. SADASIVA RAO

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

CHIEF GENERAL MANAGER

P & MM & IVice Chairman & Managing Director

C. The Developer has submitted two applications on 24.04.2013 & 03.02.2015 for allotment of 24 MW (14.40 MW & 9.60 MW) capacity in Betamcherla, Kurnool District (hereinafter called the 'Area') and NREDCAP, through its sanction letter No. NREDCAP/WE/EEIPL/7202/2015, dated 24.07.2015 has sanctioned setting up and operation of the Wind Farm Project for generation of 24 MW capacity in Betamcherla, Kurnool District (hereinafter called the 'Project) stipulating the terms and conditions therefor and for entering into this Agreement.

### NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

#### ARTICLE 1

### **DEFINITIONS AND INTERPRETATION**

#### 1.1 Definitions

In this Agreement, the words and expressions, unless and otherwise defined or described herein, shall, unless repugnant to the context or meaning thereof, have the meaning assigned in the Andhra Pradesh Electricity Reforms Act 1998 (APERC Act), the Indian Electricity Act 2003 and GO MS No.9, Energy Infrastructure & Investment (PR-II) Department, dated 13-02-2015, GOAP.

#### 1.2 Public Interest

The award, Development, Operation and Maintenance of the Project is in public interest.

#### 1.3 Essence of Time

As the Project Implementation is as per a pre-decided time schedule, the Developer shall ensure that the Project is executed within the Project Implementation Period, to be specific on or before the COD.

#### **ARTICLE 2**

#### **GRANT OF ALLOTMENT**

### 2.1 SANCTION OF ALLOTMENT OF CAPACITY

Subject to and in accordance with the terms and conditions set forth in this Agreement and the Developer undertaking to observe and perform the covenants, obligations, responsibilities, terms and conditions of the Agreement NREDCAP hereby sanctions setting up by the Developer of a Wind Farm Project in the identified Potential Area of Anantapur District for generation of wind power for commercial use (sale)/ captive consumption.

FOR ECOREN ENERGY INDIA PVT. LTD.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

or NATCO POWER PRIVATA Authorised Signator

CHIEF GENERAL Widel@ERan & Managing Director

P & MM & IPC APSPDCL :: TIRUPATI

N. SADASIVA RAO Director

#### 2.2 Financing

The Developer shall set up and operate the Project with its own finance. There shall be no financial contribution from NREDCAP.

#### 2.3 Applicability of other Laws

The sanction of the Project and its development and operation by the Developer shall be subject to the Indian Electricity Act 2003 and the Rules and Regulations made thereunder from time to time; the Regulations and directions of the Andhra Pradesh Electricity Regulatory Commission (APERC); the Policy as amended from time to time and all other Applicable Laws.

#### 2.4 Sanction Fee

The sanction fee paid by the Developer in terms of the sanction letter for entering this Agreement is one-time payment and non-refundable.

#### 2.5 Facilitation by NREDCAP

NREDCAP may assist the Developer in securing the required clearances for the Project at the State and Central Government levels and grant of loans by IREDA/PFC/REC and other terms loan Agencies/Commercial Banks without any liability of whatever nature in the event of rejection or delayed issue of such clearances by the relevant agencies. However, this could not be binding on NREDCAP.

### 2.6 Regulation of Allotment

The Policy empowers NREDCAP to regulate the allotment of wind generation power projects.

#### **ARTICLE 3**

#### LAND ALLOTMENT

#### 3.1 Allotment of Government Land

(a) The Developer shall make an application to Government of Andhra Pradesh/District Collector through NREDCAP to the extent of the land required in case the land where the Project is being set up is Government land with reference to the extent required vis-à-vis the capacity allotted.

FOR ECOREN ENERGY JAPIA PVT. LTD.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

For NATCO POWER PRIVATE UNITED Signatory

Vice Chairman & Managing Director

CHIEF GENERAL MANAGER
P & MM & IPC

ARAO P & MIN & IPC

APSPDCL :: TIRUPATI

(b) The Developer shall submit a micro-siting map to NREDCAP duly indicating the extent of land along with survey number details. After due scrutiny and vetting of the micro siting map, NREDCAP will recommend the proposal to the District Collector to consider allotment of land for the Project. The extent area of approved could be same or different from the area sought by the developer as per the micro siting map submitted by the developer within the same potential area as per the MNRE guidelines and the decision of NREDCAP shall be final and binding.

NREDCAP shall not be responsible nor shall it be liable for non-allotment of the land by the Government for whatever reasons.

#### 3.2 Private Land

Where the Project proposed to be set up is in a private land, the Developer shall make its own arrangements for procurement of land, subject to approval of the area of operation by NREDCAP.

### 3.3 Proportionate Allotment

- (a) The Developer is aware that the capacity allotment in the potential areas is based on the wind power potential estimated in the micro survey reports prepared by the NIWE or NREDCAP and that the wind power potential assessment made either by NIWE or NREDCAP is only an estimate on broad basis and actual potential may be higher or lower than the estimation made.
- (b) In all such cases of variation, NREDCAP shall have the right as under and the Developer hereby undertakes to abide by the decision of NREDCAP therefor.
- (i) In cases where the actual potential is less than provisionally allotted based on the estimated capacity, NREDCAP shall have the right, without any liability of whatever nature, to allot the land, government or private, proportionately among the various project developers in based on the actual potential at the site, and
- (ii) In case where the actual potential is higher than the provisionally allotted capacity, the provisionally allotted capacity will remain the same and the land, government or private, will accordingly be allotted proportionally with reference to the actual capacity among the various project development in the same area and any surplus land left over in the area will be allotted to the new developers.

FOR ECOREN ENERGY JADIA PVT. LTD.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

CHIEF GENERAL MANAGERairman & Managing Director
P & MM & IPC

APSPDCL :: TIRUPATI

FOR NATCO POWED DOWN

N. SADASIVA RAO

#### **ARTICLE 4**

#### PROJECT COMPLETION AND OPERATION

#### 4.1 Project Completion Period

The Project Completion shall be within 24 months from the date of the Agreement that includes the time required for securing all the Applicable Clearances, Approvals etc., and for Financial Closure. At the time of land allotment, the Developer shall submit to NREDCAP a Project Completion Schedule with set timelines for each component for approval of and monitoring by NREDCAP.

#### 4.2 Delays in Project Completion

- (a) In case of any delay in achieving the timelines under any of the components as per the approved Project Completion Schedule the Developer shall pay to NREDCAP a penalty by way of liquidated damages Rs.40,000 per MW (Rupees forty thousand only) in case the Project is being set up in Government land; and Rs.20,000 per MW (Rupees twenty thousand only) in case the Project is being set up in private land, for each 15 days delay or fraction thereof provided such delay shall not extend beyond three months. The said liquidated damages shall be payable by the Developer within such time as may be stipulated in the Notice.
- (b) In the event of Developer failing to pay the amount under Clause (a) above within the stipulated time, the Performance Guarantee will be invoked for the equivalent amount, in which case the Developer shall replenish the invoked amount or shall submit a fresh Guarantee within 7 (Seven) days from the date of such invocation. Failure to do so, shall be an event of default and notwithstanding anything contained in the Agreement and without prejudice to its rights and entitlements NREDCAP will have if any under the Agreement, the Agreement shall stand terminated without any further notice of whatever nature and the Developer hereby consents for the same.
- (c) If the Project is not completed even within the aforesaid three months beyond the schedule date of completion, notwithstanding anything contained in the Agreement, the Agreement shall stand terminated at the instance of the Developer without any requirement of issue of any prior notice of whatever nature and the Performance Guarantee shall also stand forfeited. All Clearances, Approvals and Permissions etc., since secured by the Developer shall become inoperative subject to the terms and conditions of issue of such Clearances, and the allotment of land shall also stand withdrawn and resumed.

For NATCO POWER PRIVATION For NATCO POWER PRIVATION AND SAPASIVA DATE AND SET THE PRIVATION OF ANALYSIS APSPECE :: TIRUPATION & Managing Director

(d) NREDCAP or the appropriate authority, on a representation made by the Developer, may grant extension of time for completion of the Project on reasonable and justifiable grounds as in the cases of delay in handing over of the land by the District Collector in spite of sincere approach for the same by the Developer or acquiring the land due to Force Majeure event or any other legal issues or administrative regulations of the Government or any other valid reasons of which the NREDCAP or the appropriate authority consider appropriate and fit. However, such extension shall not be more than 12 months in case of private or Govt. land and or more than 36 months in case of forest lands

#### **ARTICLE 5**

#### PERFORMANCE GUARANTEE

- (a) For due and satisfactory performance of its obligations under the Agreement, the Developer has submitted Bank Guarantees No. 4084IBGIS150013, dt. 07.07.2015 for Rs.14.40 lakh & No. 4084IBGIS150012, dt. 07.07.2015 for Rs.9.60 lakh valid upto 06.10.2017 towards performance guarantee.
- (b) In all cases where the Project is not completed within twenty four months and the Agreement is not terminated for whatever reasons including extension of time by levying penalties as in Article 4 above or for any other reasons as provided in the Agreement, it shall be the responsibility of the Developer to get the Bank Guarantee extended within 7 (seven) days of expiry of 18 months, failing which the Agreement shall be deemed to have expired or to have been terminated at the end of the 24<sup>th</sup> month irrespective of the progress in the Project Completion made.
- (c) The Performance Guarantee will be invoked for any defaults of the Developer and/or towards any dues to NREDCAP as stipulated herein above and also as provided in the Agreement.
- (d) NREDCAP, on an application made by the Developer, may consider releasing proportionate amount of Performance Guarantee based on the substantial progress made in the Project Completion. The decision of NREDCAP in the matter of 'substantial progress' and the quantum of amount to be released shall be final and binding on the Developer and no correspondence from the Developer in this regard shall be entertained.

For ECOREN ENERGY INDIA PVT. LTD.

For NATCO POWER PRIVATE UMITED GENERAL MANAGER

P & MM & IPC

ACTION ACTION OF A PRIVATE OF A PROPORTION OF

### **ARTICLE 6**

### **OBLIGATIONS OF DEVELOPER**

- 6. In addition to and not in derogation or substitution of any of the obligations set out elsewhere in this Agreement, the Developer shall as mandatory obligation
  - a) Set up the Project in the specified and demarcated site of the Area.
  - b) Ensure that the wind turbines installed shall not affect the performance of the other wind turbines and maintain safety standards in consultation with NREDCAP.
  - c) Explore the possibility of installing higher capacity Wind Electric Generators to achieve higher plant load factor and that the Wind Electric Generators under the project having the approval of C-WET shall only be installed.
  - d) Ensure that no second hand or used wind turbines, imported from abroad or procured locally shall be installed.
  - Report to NREDCAP if there is any change in the proposal submitted alongwith the application, and obtain prior written approval of NREDCAP for such changes.
  - f) Ensure that the wind mill generate grid quality power with power factor not less than 0.85 and should draw minimum reactive power.
  - g) Enter into the Power Purchase Agreement or Open Access Agreement or Wheeling Agreement with DISCOMs in terms of the Policy and the orders and/or guidelines of the Government of Andhra Pradesh issued thereunder and also the Indian Electricity Act 2003 and the rules and regulations made thereunder, from time to time.
  - h) Secure and keep in force at all times all Applicable Clearances, Permits, Sanctions, Approvals and No Objection Certificates necessary for setting up of the Project including installation of Wind Electric Generators under the Applicable Laws from the Relevant Authorities.
  - i) The company shall enter into Power Purchase Agreement with DISCOMs in respect of Govt. and Forest areas, as per the policy of the Govt. in regard from time to time. In case of wind power capacities set up in private land, the developer shall enter into Power Purchase Agreement or Open Access Agreement or Wheeling Agreement with DISCOMs as per policy decided by the Govt.

For ECOREN ENERGY INDIA PVT. LTD.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

NATCO POWER PRIVATE ANTHORSE Signatory

P & MM & IPC

APSPDCL : Vice Chairman & Managing Director

N. SADASIVA RAO Director

- j) Achieve the Financial Closure within a period of six months from the date of signing of the Agreement or earlier thereto subject to any extension granted in writing by NREDCAP at the request of the Developer either due to delays in securing the Clearances etc. under Clause (h) above or due to any Force Majeure Event. Any extension so granted by NREDCAP shall not ipso-facto extend the Project Completion Period.
- k) Permit the other wind developers to use the roads and other infrastructure facilities if any on the allotted land and also provide infrastructure and other facilities for conveyance and for transmission of power necessary in that area.
- I) Ensure in case of company, the shareholder having highest equity in the paid up capital of the company shall continue to hold the same and in any case not less than 26% in case of Partnership firm the Partner holding highest stake in the Firm shall continue as such minimum period of one year after commissioning of the project. This will not be applicable in respect of manufacturers and suppliers of machinery for transfer of capacity once the development is made at the site. No change in the shareholding pattern / the Parties stake in the Firm shall be made without the written approval of NREDCAP. However, the Developer is allowed to sell projects/sub-projects to their customers after development of site with infrastructure including the power evacuation arrangements.
- m) Ensure that the Project Site remains free from all encroachments and take all steps necessary to remove encroachments, if any.
- n) Make payment to any Government Agency, if required, for provision of such services as are not provided in the normal course or are available only on payment.
- o) Operate and maintain the Project at all times during the Operations Period in conformity with this Agreement including but not limited to the Specifications and Standards, and Good Industry Practice and as per the orders/guidelines of the Government of Andhra Pradesh under the Policy; and the Indian Electricity Act 2003 and the rules and regulations made thereunder from time to time.
- p) Keep and maintain the Project Site in a neat and clean and hygienic condition and in conformity with the Applicable Laws and Applicable Permits.

For NATCO POWER PRIVATE CIMENTAL Signatory CHIEF GENERAL MANAGER

P & MM & IPC

N. SADASIVA RAO

N. SADASIVA RAO

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

P & MM & IPC

APSPDCL: Vice Chairman & Managing Director

- q) Comply with all the terms and conditions and satisfactorily performance of all its obligations stipulated under this Agreement in addition to such other obligations and undertakings under the provisions of the land allotment and PPA.
- r) Alone be responsible for all or any risks of whatever nature attached or inherent to development, construction, marketing, operation of and investment in the Project.
- s) Report to NREDCAP of any default notices issued by the Relevant Authorities in matters concerning the setting up of the Project or its operation and maintenance and the remedial measures being taken/taken by it.
- Pay and discharges all taxes, levies, charges, fees, cess, levies and other impositions of whatever description under law including the service tax concerning the subject matter of the Agreement

### **ARTICLE 7**

## PROJECT COMPLETION CERTIFICATE AND INSPECTIONS

## 7.1. Project Completion Certificate

The Project shall be deemed to have been completed in terms of this Agreement, only after inspection and testing and on issue of the completion certificate by the concerned DISCOM (Power Distribution Company of Andhra Pradesh) or AP Transco (Transmission Corporation of Andhra Pradesh), as the case may be.

## 7.2 Inspections

NREDCAP through its Authorised Officer/s shall have the right and similarly the officers of other departments/organizations of the Government of India or the Government of Andhra Pradesh having jurisdiction over the Project for inspection of the Project and the Developer shall permit such inspections and failure to do so by the Developer shall be a default.

# 7.3 Periodical Reports

The Developer shall submit quarterly progress reports for each quarter ending March, June, September and December for review by NREDCAP until commissioning of the Project and thereafter monthly progress reports on power generation.

or NATCO POWER PRIVATE LANGE Signatory

CHIEF GENERAL MANAGER

N. SADASIVA RAO

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

CHIEF GENERAL MANAGER

P & MM & IPC

APSPDCL :: TIKUPATI

### **ARTICLE 8**

### **EVENTS OF DEFAULT AND TERMINATION**

### 8.1 Event of Default and Termination

- (a) Save and except as otherwise provided in the Agreement, in case of any default of the Developer, NREDCAP shall have the right to terminate the Agreement with 30 (thirty) days advance notice.
- (b) Upon Termination under Clause (a) above, NREDCAP shall have no obligation to compensate the Developer in any manner.

### **ARTICLE 9**

### **MISCELLANEOUS**

## 9.1 Dispute Resolution

(a) Amicable Resolution

Save where expressly stated otherwise in this Agreement, any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to this Agreement including completion or otherwise of the Project between the Parties and so notified in writing by either Party to the other (the "Dispute") in the first instance shall be attempted to be resolved amicably by the Parties

(b) Appeal

In the event of the Parties not finding an acceptable solution to the dispute(s) within 30(thirty) days, the Developer may appeal to the Chairman of the Board of Directors of NREDCAP whose decision shall be final and binding.

# 9.2 Governing Law and Jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India and the Courts at Hyderabad, Andhra Pradesh State, India shall have jurisdiction over all matters arising out of or relating to this Agreement.

FOR ECOREN ENERGY INDIA PVT. LTD.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd

Author sed Signatory

CHIEF GENERAL MANAGER

Y P & MM & IPC

APSPDCL :: TIP/GPApairman & Managing Director

N. SADASIVA RAO Director

### 9.3 Waiver

- (a) Waiver by either Party of any default or any rights under the Agreement by the other Party in the observance and performance of any provision of or obligations or under this Agreement
  - i. Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions or obligations under this Agreement
  - ii. Shall not be effective unless it is in writing and executed by a duly authorized representative of such Party; and
  - iii. Shall not affect the validity or enforceability of this Agreement in any manner.
- (b) Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

### 9.4 Amendments

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the Agreement between the Parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by the Parties hereto and evidenced in writing.

# 9.5 Exclusion of Implied Warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by any Party not contained in a binding legal agreement executed by the Parties.

FOR ECOREN ENERGY INDIA PVT. LTD.

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

For NATCO POWER PRIVATE LIMITED GOVERNMENT AUTHORISED Signatory

CHIEF GENERAL MANAGER
P & MM & IPC

APSPDCL :: TIPVLE Chairman & Managing Director

N. SADASIVA RAO Director

### 9.6 Counterparts

This Agreement shall be executed in two counterparts on non-judicial papers of Rs.100/- each and registered if required under law at the cost and expense of the Developer which when executed and delivered shall constitute an original of this Agreement

# IN WITNESS WHEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS ON THE DATE FIRST ABOVE WRITTEN.

Signed, Sealed and Delivered

For and on behalf of Developer by:

For ECOREN ENERGY INDIA PVT. LTU.

Signature of Authorized Person

Signed, Sealed and Delivered

For and on behalf of the NREDCAP

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

Signature of Authorized Person Vice Chairman & Managing Director

### Witnesses

In the presence of

1) Signature:

Managa

P.V. Ramerh

Addrocc

P.D. NRED CATI Hyderal

2) Signature:

Name

9. Anie

Address

flot No: ux1

Load No 36, Jubilee Hils

FOR NATCO POWER PRIVATE LIMITED 4 - 5000 33

N. SADASIVA RAO Director P & MM & IPC

APSPDCL :: TIRUPATI

# ఆంధ్రప్రదేశ్ నూతన మలియు పునరుద్ధరణీయ ఇంధన వనరుల అఇవృబ్ధి సంస్థ లి. New & Renewable Energy Development Corporation of Andhra Pradesh Ltd.

(A State Government Company)

(Formerly Non-Conventional Energy Development Corporation of Andhra Pradesh Ltd.) Regd. Office: # 5-8-207/2, Pisgah Complex, Nampally, Hyderabad - 500 001. India.

Tel: Off: 040-23202391, 23202262. 23203376 Fax: 040-2320 1666 E-mail: info@nedcap.gov.in, nedcap@ap.nic.in Website: www.nedcap.gov.in



Dt.19.05.2016

To M/s NATCO Power Pvt. Ltd, NATCO House Road#2, Banjara Hills, HYDERABAD- 500 034.

Sirs.

Sub: Transfer of 1.60 MW capacity wind farm in favour of M/s NATCO Power Pvt. Ltd wind farm allotment given to M/s Ecoren Energy India (P)Ltd, – orders issued – Reg.

Ref: 1. T.O. Sanction Lr. No.NREDCAP/WE/EEIPL/7202/2015, Dt.24.07.2015

2. Agreement entered on 24.07.2015

3. Lr.No. Nil, dt. 12.05.2016 of M/s. Ecoren Energy India (P) Ltd

 Board Resolutions of both companies of M/s. Ecoren Energy India (P) Ltd & M/s NATCO Power Pvt. Ltd

5. G.O. Rt No.61, Dt.24-3-2011 of Energy (RES) Dept, GOAP, Hyderabad

### 8 8 8

In the reference 1<sup>st</sup> & 2<sup>nd</sup> cited, 24 MW capacity wind farm project was allotted to M/s Ecoren Energy India (P) Ltd to set up at Betamcherla, Kurnool district.

In the reference 3<sup>rd</sup> cited, M/s Ecoren Energy India (P) Ltd, has informed that they have proposed to develop 1.60 MW Capacity wind farm project at Betamcherla, Kurnool district through M/s NATCO Power Pvt. Ltd and requested to transfer 1.60 MW capacity in the name of M/s NATCO Power Pvt. Ltd to set up at Betamcherla, Kurnool district.

Taking into consideration of Board resolutions of M/s Ecoren Energy India (P) Ltd & M/s NATCO Power Pvt. Ltd, and request of M/s Ecoren Energy India (P) Ltd permission is hereby accorded to transfer 1.60 MW wind power capacity sanctioned to set up at Betamcherla, Kurnool district in favour of M/s NATCO Power Pvt. Ltd, NATCO House Road#2, Banjara Hills, Hyderabad- 500 034 from M/s Ecoren Energy India (P) Ltd to set up 1.60 MW capacity at Betamcherla, Kurnool district.

FOR NATCO POWERYPRIVATE LIMITED

CHIEF GENERAL MANAGER

P & MM & IPC

APSPDGL :: TIRUPATI

A RAO

"Energy is Life - Conserve it"

M/s NATCO Power Pvt. Ltd, is requested to enter into agreement with NREDCAP as per the prescribed format (enclosed) within one month from the date of this order. The other terms and conditions of the sanction order issued to M/s Ecoren Energy India (P) Ltd will hold good to this transfer of project of 1.60 MW capacity to M/s NATCO Power Pvt. Ltd.

Thanking you,

Yours faithfully, Sd/-VC & Managing Director

Encl:a.a.

Copy to M/s Ecoren Energy India (P) Ltd, Plot No. 481, 4th floor, 36" Square,

Road No. 36, Jubilee Hills, HYDERABAD - 500033

Copy to Chairman and Managing Director, APSPDCL, Tirupathi.

Copy to the Executive Director (P, RAC & Reforms), AP TRANSCO, Vidyut

Soudha, Hyderabad

Copy to the Chief Engineer, IPC, APPCC, AP TRANSCO, Hyderabad.

Copy to the District Collector, Kurnool District.

Copy to the District Manager, Kurnool/Ananthapur Districts

//FBO//

PROJECT DIRECTOR (WE)

For NATCO POWER, PRIVATE LIMITED

N. SADASIVA RAO
Director

CHIEF GENERAL MANAGER

APSPDCL :: TIRUPATI

HUNDRED RUPEES RAINDIA INDIAMONSUDICIAL

# මීළුරු तेलंगाना TELANGANA

S.No. 533 5 Date 17-05-2016 Sold to Anail S/ODIOWIO DENIL 40 HA For Whom 415 Nates Power PUL Hd HYD

## 446824 Bathini Niranjan Reddy

STAMP VENDER License No. 16-04-23/2014 8-3-218/610/A, Rahmath Nagat, Yeusufguda, Hyderabad-500 045

### **AGREEMENT**

THIS AGREEMENT is entered into on this 19th of May, 2016 at Hyderabad, by

(1) New and Renewable Energy Development Corporation of Andhra Pradesh Itd., (Formerly NEDCAP) a fully owned State Government Company, registered under the Companies Act, 1956, having its office at 5-8-207/2, Pisgah Complex, Nampally, Hyderabad 500 001 (India), represented by its Vice Chairman & Managing Director, hereinafter referred to as the NREDCAP of the FIRST PART,

### AND

(2) M/s NATCO Power Pvt. Ltd, a company incorporated under the Companies Act, 1956, having its registered office at: NATCO House Road#2, Banjara Hills, Hyderabad- 500 034, represented by its Authorized Signatory, Sri Nannapaneni Sadasiva Rao, hereinafter referred to as the Developer'/ 'Customer' of the SECOND PART.

Contd...

OF ECOREM ENERGY INDIA PVT. LTD.

For NATCO POWER PRIVATE LIMITEL

For Naw & Renewable Energy Development Compension of Andhra Pradash Ltd.

ce Chairman & Managing Director AUTHORISED SIGNATUEF GENERAL MANAGER

P& MM & IPC APSPDCL :: TIRUPATI

N. SADASIVA RAO Director

(3) M/s Ecoren Energy India (P) Ltd, a company incorporated under the Companies Act, 1956, having its registered office at: Plot No. 481, 4th floor, 36" Square, Road No. 36, Jubilee Hills, Hyderabad - 500033, represented by its Authorized Signatory, Sri Podapati Raghawa, hereinafter referred to as the 'Developer'/ Customer' of the THIRD PART.

The NREDCAP, Customer and the Developer are severally referred to as the Party and collectively as Parties.

The expressions 'NREDCAP', 'Developer' / 'Customer' and 'Developer' shall unless repugnant to the context or meaning thereof, include respectively their successors, administrators and permitted assigns,

### WHEREAS,

NREDCAP is the Nodal Agency for approval of wind energy projects upto 40 MW capacity and, therefore, for setting up of wind farms in the Potential Areas in the State of Andhra Pradesh as per the guidelines of the Ministry of New and Renewable Energy (MNRE), Government of India and also the guidelines under the Andhra Pradesh Wind Power Policy-2015 of the Government of Andhra Pradesh (GOAP) notified vide GO MS No.9, Energy Infrastructure & Investment (PR-II) Department, dated 13-02-2015 (hereinafter called the 'Policy') as well. For the projects with more than 40 MW Capacity, the GOAP grants clearance on the recommendations of NREDCAP. The Policy, inter-alia, aims at encouraging optimum utilization of the available wind power potential in the State by facilitating adoption of state of art technology through private participation, balancing the interest of the customers and the developers, permitting the developers for using the power produced for captive consumption or making sale to a third party or to DISCOMs as per the guidelines under the Policy, and the Indian Electricity Act 2003 and the rules and regulations made and the directions issued by GOAP thereunder. Under the Policy the Developer is also eligible for certain incentives and concessions. As per the existing Policy guidelines of NREDCAP, where the Developer is a manufacturer or supplier, such Developer can transfer the capacities allotted to it to any customer provided prior approval of NREDCAP stipulating such of the terms and conditions as it considers necessary and appropriate is obtained.

Contd...

For ECOREN ENERGY INDIA PVT. LTD. Corporation of Andhra Pradesh Ltd. For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

Director

For New & Renewable Energy Development

Vice Chairman & Managing Director

AUTHORISED SIGNATHEF GENERAL MANAGER P & MM & IPC

APSPDCL :: TIRUPATI

The Third Party was earlier sanctioned 24 MW wind farm projects to be set up at Betamcherla, Kurnool District and accordingly an Agreement was entered between NREDCAP and the Developers as given in following table, hereinafter referred as the 'Principal Agreement' containing the terms and conditions thereof. Para 2 of the Principal Agreement enables development of the wind power projects by the Developer for customers/users.

SI. No	Company Name	Proceedings No. & Agreement Date	Capacity Sanctioned (In MW)
1	M/s Ecoren Energy India (P) Ltd	Sanction Lr.No. NREDCAP/WE/ EEIPL/7202/201 Dt.24.07.2015 Agreement dt. 24.07.2015	24
		Total	24

The Third Party through their Letter No. Lr.No. Nil, dt. 12.05.2016 informed that they intended to execute 1.60 MW through M/s NATCO Power Pvt. Ltd as per the details given below, hereinafter referred to as the 'Project', duly conveying its no objection and consent for transfer of the Project in the name of the Second Party from the existing capacity sanctioned.

SI No	Customer Name	Capacity in MW	Capacity transferred from	Capacity transferred (In MW)
1	M/s NATCO Power Pvt. Ltd	1.60	M/s Ecoren Energy India (P) Ltd	1.60
	Total	1.60		1.60

After due consideration of the proposals under (B) above, the First Party, through its Letter/ Proc No. NREDCAP/WE/7202/2016, Dt.19.05.2016 and granted permission for the transfer of the Project stipulating the terms and conditions therefor and for entering into this Agreement. The Second Party having complied with the conditions of the said permission letter of NREDCAP requested for execution of this Agreement. Contd...

For New & Renewable Energy Development

For ECOREN ENERGY INDIA PVT. LTD. FOR NATCO POWER PRIVATE LIMITEI Corporation of Andhra Pradesh Ltd. Vice Chairman & Managing Director AUTHORISED SCHAFFOR ENERAL MANAGER N. SADASIVA RAO P & MM & IPC Director APSPDCL :: TIRUPATI

# NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

### ARTICLE 1 **DEFINITIONS AND INTERPRETATION**

#### 1.2 **Definitions**

In this Agreement, the words and expressions, unless and otherwise defined or described herein, shall, unless repugnant to the context or meaning thereof, have the meaning assigned in the Andhra Pradesh Electricity Reforms Act 1998 (APERC Act), the Indian Electricity Act 2003 and GO MS No.9, Energy Infrastructure & Investment (PR-II) Department, dated 13-02-2015, GOAP or in the Principal Agreement appended hereto.

#### **Public Interest** 1.2

The sanction, development, operation and maintenance of the Project is in public interest.

#### **Essence of Time** 1.3

As the Project Implementation is as per a pre-decided time schedule, the Customer shall ensure that the Project is executed within the Project Implementation Period.

### ARTICLE 2 **GRANT OF ALLOTMENT**

## 2.4 Transfer of Sanctioned Capacity

Subject to and in accordance with the terms and conditions set forth in this Agreement and the Principal Agreement and the Customer undertaking to observe and perform the covenants, obligations, responsibilities, terms and conditions of this Agreement and the Principal Agreement as well, NREDCAP hereby sanctions transfer of 1.60 MW capacity wind power from wind power project earlier sanctioned to the Developer M/s Ecoren Energy India (P) Ltd, to and in the name of the developer / Customer for setting up of the Project as per the following table for generation of 1.60 MW capacity of wind power for captive use/sale of power to AP DISCOM/Sale of power to third party.

SI.No.	Customer Name	Capacity (MW)	Location details
1	M/s NATCO Power Pvt. Ltd	1.60	Betamcherla, Kurnool district

APSPDGL :: TIRUPATI

Contd..

For ECOREN ENERGY INDIA PVT. LTD. For NATCO POWER PRIVATE LIMITED For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd. RESIGNATORRAL MANAGERAN & Managing Director I. SADASIVA RAO P & MM & IPC Director

### 2.5 Financing

The Customer shall set up and operate the Project with its own finance. There shall be no financial contribution from NREDCAP.

### 2.6 Applicability of other Laws

The sanction of the Project and its development and operation by the Customer shall be subject to the Indian Electricity Act 2003 the Rules and Regulations made thereunder from time to time; the Regulations and directions of the Andhra Pradesh Electricity Regulatory Commission (APERC); the Policy of the GOAP and NREDCAP as formulated and amended from time to time and all other Applicable Laws.

### 2.4 Regulation of Allotment

The Policy empowers NREDCAP to regulate the allotment of wind generation power projects.

# ARTICLE 3 PERFORMANCE GUARANTEE

The Performance Guarantee submitted by the Developer and renewed from time to time shall be proportionately applicable to this Project and it shall be the responsibility of the Customer to ensure that the Performance Guarantee well before its expiry renewed from time to time and no notice therefor shall be issued by NREDCAP duly complying with the stipulations and conditions specified in Article 5 of the Principal Agreement.

### **ARTICLE 4**

### **EFFECT OF PRINCIPAL AGREEMENT**

Save except as otherwise and to the extent provided in this Agreement all other terms and conditions of the Principal Agreement including rights, entitlement, obligations and liabilities shall remain the same and binding on the Parties. It is clarified that any extension of time granted by NREDCAP for any particular event in terms of the Principal Agreement shall also be applicable to this Agreement.

Contd...

For ECOREN ENERGY INDIA PVT. LTD.

For NATCO POWER PRIVATE LIMITE For New & Renewable Energy Development

Corporation of Andhra Pradesh Ltd.

Authorised Signatory

Authorised Signatory

Authorised Signatory

N. SADASIVA RAO

Director

P & MM & IPC

APSPDCL :: TIRIIPATI

### **ARTICLE 5**

### **MISCELLANEOUS**

### 5.1 Dispute Resolution

(a) Amicable Resolution

Save where expressly stated otherwise in this Agreement, any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to this Agreement including completion or otherwise of the Project between the Parties and so notified in writing by either Party to the other (the "Dispute") in the first instance shall be attempted to be resolved amicably by the Parties (b) Appeal

 In the event of the Parties not finding an acceptable solution to the dispute(s) within 30(thirty) days, the Customer may appeal to the Chairman of the Board of Directors of NREDCAP whose decision shall be final and binding.

### 5.2 Governing Law and Jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India and the Courts at Hyderabad, Andhra Pradesh State, India shall have jurisdiction over all matters arising out of or relating to this Agreement.

### 5.3 Waiver

- (a) Waiver by either Party of any default or any rights under the Agreement by the other Party in the observance and performance of any provision of or obligations or under this Agreement
  - shall not operate or be construed as a waiver of any other or subsequent Default hereof or of other provisions or obligations under this Agreement
  - ii. Shall not be effective unless it is in writing and executed by a duly Authorized representative of such Party; and
  - iii. Shall not affect the validity or enforceability of this Agreement in any Manner.
  - iv. Neither the failure by either Party to insist on any occasion upon the Performance of the terms, conditions and provisions of this Agreement

Contd..

P. Lagrang For NAICO PO	OWER PRIVATE OF IM	CHIEF GENERAL P & MM 8	Vice Chairman MANAGER	able Energy Development Andhra Pradesh Ltd.
	pliector	APSPDGL :: 1	TIRUPATI	

or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

### 5.4 Amendments

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the Agreement among the Parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by the Parties hereto and evidenced in writing.

### 5.5 Exclusion of Implied Warranties etc.

2. This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by any contained in a binding legal agreement executed by the Parties.

### 5.6 Indemnity

The Customer and the Developer hereby undertake and agrees to defend, indemnify and hold harmless the NREDCAP, its officers, employees and consultants from and against any and all claims, liabilities, actions, demands, judgments, losses, costs, expenses, suits, actions and damages arising by reason of bodily injury, death or damages to property sustained by third parties that are caused by an act of negligence or the wilful misconduct of the Customer and/or Developer or by their officer/s, director/s, sub-contractor/s, agent/s or employees.

### 5.7 Notices

Unless otherwise stated, notices to be given under this Agreement including but not limited to a notice of waiver of any term, breach of any term of this Agreement and termination of this Agreement, shall be in writing and shall be given by registered post, hand delivery, recognized national courier, mail, telex or facsimile transmission and delivered or transmitted to the Parties at their respective addresses set forth below:

### If to the NREDCAP

Vice Chairman and Managing Director, 5-8-207/2, Pisgah Complex, Nampally, Hyderabad 500 001 Fax.No.040 23201666, email: info@nedcap.gov.in If to the Customer M/s NATCO Power Pvt. Ltd, NATCO House Road#2, Banjara Hills, HYDERABAD- 500 034. Phone: 040-23547532

### If to the Developer

M/s. Ecoren Energy India (P) Ltd, Plot No. 481, 4<sup>th</sup> floor, 36" Square, Road No. 36, Jubilee Hills, **HYDERABAD – 500033**, Phone: 040-23551374

Or such address, or facsimile number as may be duly notified by the respective Parties from time to time, and shall be deemed to have been made or delivered (i) in the case of any communication made by letter, when delivered by hand, by recognized national courier or by mail (registered, return receipt requested) at that address and (ii) in the case of any communication made by facsimile, when transmitted properly addressed to such facsimile number and copy sent by mail. In case of any change in the address, it shall be the responsibility of each party to get such change recorded in relevant records of the other Party/ies and get confirmation to that effect.

### 5.8 Partial Invalidity / Severability

If for whatever reason, any provision of this Agreement is or become invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentally to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable. Provided failure to agree upon any such provisions shall not be subject to dispute resolution under this Agreement or otherwise.

### 5.9 Precedence of Documents

The following documents / agreements between the Parties shall be construed as mutually explanatory to one another provided that in the event of any conflict or repugnancy between them the order of precedence of the documents shall be:

- a) This Agreement, including Schedules and Annexure.
- b) The Principal Agreement.
- c) Letter of Sanction.
- d) Proposals submitted by the Customer and Developer

Contd..

FOR ECOREN ENERGY INDI	A DICT ITO		
/1/ / /	For NATCO POW	PRIVATE LIMITET FOR New &	Panaurahia Farana
J. Legloword	OVER PRIVATEINIDAM	D LIN M	audit of Andria Pradesh Ltd.
7-0101300	Sach St AUTH	HORISED STENSTONERAL MA	NAGERBULE
	W. JADASIVA RAO	APSPDCL :: TIRU	airman & Managing Director
	Director	W. OLDOF :: LIKO	PATI

### 5.10 Counterparts

This Agreement shall be executed in three counterparts on non-judicial papers of Rs.100/- each and registered if required under law at the cost and expense of the Developer which when executed and delivered shall constitute an original of this Agreement.

IN WITNESS WHEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

Signed, Sealed and Delivered For and on behalf of Customer by:

For NATCO POWER PRIVATE LIMITED

Signature of Authorised Person

(Name) (Designation)

(Seal)

Signed, Sealed and Delivered For and on behalf of the NREDCAP

For New & Renewable Energy Development Corporation of Andhra Pradesh Ltd. apperlas

Vice Chairman & Managing Director

Signature of Authorised Person

(Name)

(Designation)

(Seal)

Signed, Sealed and Delivered For and on behalf of Developer by

FOR ECOREN ENERGY INDIA PVT. LTD.

Signature of Authorised Person

(Name)

(Designation)

(Seal)

Witnesses

In the presence of P.V. Ramach
Name
P.V. Ramach
NAME
P.D. NREDCAD Hyd

2) Signature N. Humanto

Name N. HUSSAIN - NO
Address H. NO. 2.2.1144/17/3, Flat-NO. G3

OMSRI Nilayam Apartment.

FOR NATCO POWER PRIVATE LIMITED

OL.

OL.

CHIEF GENERAL MANAGER

D & MM & IPC

APSPDCL :: TIRUPATI

# ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION HYDERABAD

Order Dated 26-03-2016 IN O.P.No.13 of 2016 (SUO - MOTU)

Present: Sri Justice G. Bhavani Prasad, Chairman Dr. P. Raghu, Member Sri P. Rama Mohan, Member

In the matter of notifying the generic preferential tariff applicable from 01-04-2016 to 31-03-2017 in respect of Wind Power Projects in the State of Andhra Pradesh pursuant to Regulation 6 of Regulation 1 of 2015

The Commission has issued the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Wind Power Projects) Regulation, 2015 and notified on 31-07-2015.

As per the Regulation 6 of Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Wind Power Projects) Regulation, 2015, the Commission shall notify the generic preferential tariff on suo-motu basis at the beginning of the each year of the tariff period for the wind power projects for which norms have been specified under the Regulation.

Accordingly, the parameters taken into consideration as per the Regulation 1 of 2015 for determination of tariff are as hereunder:

SI.No.	Parameter	Value
1.	Tariff Period	25 years GAZ M
2.	Useful Life	25 years
3.	Capital Cost	Rs.600.9 Lakhs/MW (including evacuation cost)
4.	O & M Expenses	Rs.9.06 Lakhs
5.	O&M Expenses' Escalation	5.72 % p.a.
6.	Depreciation for the First 10 years	7% p.a.
7.	Depreciation for the remaining useful life of the plant	1.33% p.a.
8.	Capacity Utilization Factor	23.5 %
9.	Return on Equity	16%
10.	Interest Cost on Debt	12.76%
11.	Tenure of Loan	10 years
12.	Interest on Working Capital	13.26%
	Debt Equity Ratio	70:30
13.	Discount Rate	10.64

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

P & MM & IPC

APSFDCL :: TIRUPATI

Based on the above parameters and considering the useful life of the Wind power Plant as 25 years, the levelised generic preferential tariff works out to Rs.4.84 per unit without considering the Accelerated Depreciation and Rs.4.25 per unit with Accelerated Depreciation as tabulated below.

Tariff without AD Benefit	Tariff with AD Benefit
4.84	4.25

The above tariff shall be applicable for all the new Wind Power Projects entering into Power Purchase Agreements (PPA's) with AP Discoms on or after 01-04-2016.

Sd/-(P. RAMA MOHAN) MEMBER

(on leave) (Dr. P. RAGHU) MEMBER

Sd/-(JUSTICE G. BHAVANI PRASAD) CHAIRMAN

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

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



# ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

Hyderabad

Dated: 30-03-2010

Present:

Sri A.Raghotham Rao, Chairman Sri R.Radhakishen, Member Sri C.R.Sekhar Reddy, Member

O. P. No. 40 of 2010

In the matter of approval of format for Power Purchase Agreement (PPA) and Guidelines on Power Evacuation from Wind Power Projects in Andhra Pradesh

1. The Andhra Pradesh Electricity Regulatory Commission passed orders on 01-05-2009 in O.P. Nos. 6&7 of 2009, determining the tariff for Wind Power Projects. As per the said orders, the tariff for Wind Power Projects for which PPAs would be entered into between 01-05-2009 and 31-03-2014, shall be firm at Rs. 3.50 per unit for the first ten (10) years from Commercial Operation Date (COD). The orders also stipulated that the

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED IMPERIALISES.

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

eligible developer shall bear the entire cost of power evacuation facilities for interconnecting the Wind Firms with the Grid and delivery of power.

- 2. Against the above backdrop, a petition was filed by 4 DISCOMS & APTRANSCO (herein after referred to as petitioners) on 20-08-2009, seeking orders u/s 86 (1) (b) & (e) of the Electricity Act, 2003 read with sec: 21 (4) of APER Act, 1998, for approval of guidelines for evacuation of power from Wind Power Projects and format of revised standard PPA. The motivation for filing the above said petition, as stated in the petition itself, is a request from the prospective Wind Power Project developers seeking issuance of guidelines on power evacuation facilities and making certain amendments to the existing standard PPA towards uniform and Regulatory approved guidelines for evacuation facilities and power purchase agreement format which will provide clarity and help in sustainable promotion of Wind Power Projects. Obviously the petition is a next step to orders determining tariff for the wind projects towards attracting investments in the wind sector in the state of Andhra Pradesh. Admittedly, the guidelines on power evacuation facilities and PPA format have been evolved in consultation with prospective developers and Non Conventional Energy Development Corporation of Andhra Pradesh (NEDCAP).
- The petition was taken on record by the Commission and was assigned
   P.No.40 of 2009. Thereafter, Public Notice was issued on 26-10-2009

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director P & MM & IPC
APSPDCL :: TIRUPATI

inviting the views of Public and other Stakeholders on the petition filed by the 4 Discoms and AP Transco which was placed on the official website of the Commission. The last date for receipt of views was 15-11-2009 and thereafter a Public hearing was scheduled for 30-11-2009.

- 4. In response to the above notice, two (2) Associations viz. (1) Indian Wind Turbine Manufacturers Association (IWTMA) and (2) Indian Wind energy Association (InWEA) filed their written submissions with a copy to the Chief Engineer/ IPC/ APPCC, the petitioner on 11-11-2009 and 23-11-2009 [InWEA took permission to file their written submissions after the due date of 15-11-2009] respectively. The Commission had directed the petitioner to file their responses vide letter dated 25-11-2009 with a copy to the above two Associations. The petitioner had filed their responses vide their letter dated 30-12-2009. Subsequently, the matter was part heard on 30-11-2009 and thereafter finally heard on 10-02-2010. During the hearings, in addition to the petitioner and members of the above said associations, a representative of (NEDCAP) was also present.
- 5. The Commission, having perused the record and with due regard to the written and oral submissions of the above said two associations, together with the written and oral responses of the petitioner, and also cognizing the views of the representative of the NEDCAP, identified the following key issues in the context of approval of guidelines for evacuation of power from

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

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

SADASIVA RAC

wind power projects and approval of format of revised standard power purchase agreement:

- (i) Whether Choice of conductor (technology, size, and loading) at 33 kV level should be left to the developer.
- (ii) Whether there is any need for sanctioning of estimates and drawings by any agency, since the 33 kV system is constructed, operated and owned by the developer.
- (iii) Whether supervision charges are to be levied, since the 33 kV network is constructed, owned and operated by the wind firm developer.
- (iv) Whether there should be a provision for the individual projects to be inter-connected to the grid network also.
- (v) Whether Explanation 2 under Delivered Energy clause is to be modified.
- (vi) Whether certain additional undertakings of Discoms need to be inserted under clause 6.2 of the PPA.

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
AS AVERAGE PL& MM & IPC
TOTAL APPROPRIED TO THE PROPERTY OF THE PROPERTY

- (vii) Whether seeking approval of guidelines for power evacuation by the licensee has legal validity.
- (viii) Whether evacuation costs beyond metering point should be borne by STU.
- (ix) Whether differential treatment for Cluster and Individual projects can be allowed.
- (x) Whether deemed generation clause needs to be incorporated into the PPA:
- 6. The detailed examination of the key issues and findings of the Commission thereon are as under:
  - (i) Whether Choice of conductor (technology, size, and loading) at 33 kV level should be left to developer: IWTMA suggested that in the draft guidelines, choice of the Conductors has been limited to only AAAC Conductors which is not appropriate as there are several other types of conductors available in the Market like ACSR, new technologies like ACCC etc. They further stated that the developer should be left free to adopt available technologies and the size, type and loading on the conductors based on thermal limits. On this, the petitioner stated that the limit of

D:\APERC Office\aperc.gov.in\Final Wind Order\_3003\0.decVATE LIMITED

N. SADASIVA RAO Director

P&MM & IPC

N SADASIVA RAO Director

APSPDCL :: TIRUPATI

power to be transferred at specific voltage level is characterized by current carrying capacity of the conductor and voltage regulation and as such, there was requirement to specify the permissible capacity on specific conductor at specific voltage. They further stated that the other states' ERCs have also specified the norms for injection of power by NRE projects to the state grid, and that the Rajasthan Electricity Regulatory Commission in its order dt. 31.3.2006 had stipulated the norms for connectivity of NRE projects with the grid. The petitioners requested the Commission to approve the evacuation norms for Wind power projects to be permitted at 33 KV level as proposed. The representative of the NEDCAP also opined that from the point of view of ensuring uniformity in the Grid, the choice of selecting the technology, size, type and loading of the conductor cannot be left to the developer. After a detailed examination of the technical considerations, the Commission is of the view that no changes are warranted on this account, in the evacuation guidelines or the PPA format submitted by the petitioner.

(ii) Whether there is any need for sanctioning of estimates and drawings by any agency since 33 kV system is constructed, operated and owned by the developer: IWTMA stated that the 33 kV line is constructed, operated and owned by the Wind firm developer and as such 33 kV systems should not be subject to sanctioning of estimates or drawings from any of the agencies. In response, the petitioner stated that Section 7 of the Electricity Act, 2003

D:\APERC Office\aperc.gov in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

OAS AND CHIEF GENERAL MANAGER

APSPDCL :: TIRUPATI

stipulates that a generating company has to comply with technical standards relating to connectivity with grid, referred to in clause (b) of Section 73. The petitioner further stated that the Central Electricity Authority's (CEA) notified regulations on technical standards for connectivity to the grid, and particularly Clause 6 (6) of the above said regulation, stipulates that a generating company has to make a request for connection in the planning stage to the transmission or distribution licensee, as the case may be, and the licensee should carry out interconnection study to determine the interconnection point, required interconnection facilities and modifications required to the existing grid. The petitioner further added that the regulation also states that the study may also address transmission system capability, losses and voltage regulation etc., and as such, the Transmission and Distribution licensees have to study and finalize the inter connection scheme for wind power projects. The petitioner further stated that states like Karnataka and Tamilnadu are also following a similar procedure. The Commission having considered the views of both the parties, is of the view that sanctioning of estimates and approval of drawings has to be necessarily done by the concerned licensees, in as much as the 33 kV system, even though owned and operated by the developer, will ultimately form part of the grid and as such supervision by the licensee is a necessity and is in line with provision of the EA 2003 and accordingly, no changes are warranted in the evacuation guidelines and the format PPA submitted by the petitioner.

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

For NATCO POWER PRIVATE LIMITED CHIEF GENERAL MANAGER P&MM & IPC APSPDCL :: TIRUPATI

SADASIVA RAO

(iii) Whether supervision charges are to be levied since 33 kV network is constructed, owned and operated by the wind firm developer: IWTMA pointed out that since the entire 33 KV network from the Wind turbine up to and including the Wind farm pooling station is constructed, owned and operated by the Wind firm developer, there should not be any supervision charges payable to APTRANSCO or DISCOM. In response to this, the petitioner stated that the evacuation scheme executed by Wind developers required to be supervised by the concerned Officers of transmission and distribution licensee for adherence to the standards/norms. The petitioner further stated that, to promote Wind power projects, the Transmission and Distribution licensees have already agreed to collect concessional supervision charges and that the charges proposed are minimum, when compared to similar charges being collected in Tamilnadu and Karnataka from Wind power projects. Further, the representative of NEDCAP also supported the stand of the petitioner. The Commission, noting that the evacuation scheme executed by the developer is to be supervised by the concerned officers of the petitioner, and also upon cognizing that such charges are already concessional besides being in the nature of one time payment, is of the view that supervision charges are to be necessarily paid by the wind developer and accordingly no change is warranted to the guidelines for evacuation of power from wind power projects or the PPA format as filed by the petitioner on this account.

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED BY AVE

N. SADASIVA RAO Director CHIEF GENERAL MA

CHIEF GENERAL MANAGER P & MM & IPC

DAR AVISABSPDCL :: TIRUPATI

ntagai

(iv) Whether there should be a provision for the individual projects to be inter- connected to the grid network also: IWTMA stated that the individual Wind power projects may be interconnected with the nearest grid SS or grid network [addition suggested by IWTMA]. In response, the petitioner stated that as per the existing procedure, the wind power projects and other NRE projects coming up as independent projects at specific location have to be interfaced to the nearest sub station with dedicated line and metering shall be provided at sub station. The petitioner has further brought to the notice of the Commission that very less capacity of wind power projects will come up as individual projects. NEDCAP also confirmed that in AP Projects are coming up in clusters. In view of the above position, and duly recognizing that in AP individual projects are not very likely to come, Commission is of the view that no changes are warranted on this account to the evacuation guidelines or the PPA format as filed by the petitioner.

(v) Whether Explanation 2 under Delivered Energy clause is to be modified: IWTMA stated that the Definition of Delivered Energy (Definition 1.5) is very clear and precise, whereas, the Explanation 2 under the Delivered Energy clause is ambiguous and redundant. They further stated that, whatever a wind farm generates from the agreed capacity as per the preamble and Project Definition (Definition 1.13), the same will become the delivered

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc
FOR NATCO POWER PRIVATE LIMITED A CHIEF GENERAL MANAGER P & MM & IPC APSPDCL :: TIRUPATI

energy and as such the question of calculation of energy based on the number of hours and fraction thereof, and limiting the delivered energy to that extent will not arise at all. IWTMA finally stated that this explanation will definitely lead to confusion in the future and therefore should be removed. In response, the petitioner stated that the explanation is already approved by the Hon'ble Commission in the earlier PPAs, and that the explanation indicates that in any month, the energy delivered by Wind Power Projects above 100% PLF, if any, shall not be accounted for payment. Further, the petitioner stated that the Commission also asked the NEDCAP about their opinion on the issue, and in response they have opined that the apprehension of the wind developers on this is unfounded as the PLF of a wind generator would never exceed 100% PLF and accordingly, the clause can be retained as it is without any change. Commission, is therefore of the opinion that there is no harm in retaining the clause as it is. Hence no change is warranted in the revised standard PPA.

(vi) Whether certain additional undertakings of Discoms need to be inserted under clause 6.2 of the PPA: IWTMA suggested that the following undertakings of Discoms need to be inserted under clause 6.2 of the PPA:

(a) to off-take and purchase all the Electricity generated by the Company at the Delivery Point (b) to coordinate with APTRANSCO and assist the Company in obtaining approval for the interconnection facilities where the

D:\APERC Office\aperc.gov.in\Final Wind Order 300310.doc

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P. & MM & IPC
APSPDCL :: TIRUPATI

interconnection is at 66 KV or above voltages, for synchronization, Commercial Operation, regular operation etc., as required by the Company (c) to allow the Company to operate the Project as a must run generating station (d) to provide start up power required for the plant as and when necessary. The point wise response of the petitioner is as follows: (a) the proposed clause is similar to the existing clause at 6.2 (ii) which states that DISCOM agreed to purchase delivered energy from the project and as such incorporation of this clause will create duplication and may not be necessary (b) the proposed clause may be considered (c) as per APERC orders Wind projects are already considered as must run stations (d) Article 2.5 of PPA format already provides that Wind projects can avail start up power required for plant as and when necessary by paying necessary charges and as such incorporation of proposed clause will create duplication and may not be necessary. Commission having carefully examined the suggestion of IWTMA and the responses of the petitioner is of the view that all the points raised by IWTMA have been already covered by the PPA clauses already built in except for item (b) as above. Accordingly, it would be sufficient, if the revised standard PPA is modified by inserting the undertaking indicated at (b) above. Accordingly, Commission modifies the PPA format suitably.

(vii) Whether seeking approval of guidelines for power evacuation by the licensee has legal validity: InWEA pointed out that though the approval of

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC
APSPDCL :: TIRUPATI

Director

PPA format is clearly stipulated in Section 86 (1) (b) of Electricity Act, 2003, there is no legal provision stipulating for seeking approval of guidelines for power evacuation by licensees. In response, the petitioner stated that Section 86 (1) (e) of Electricity Act 2003 stipulates that the Hon'ble Commission shall promote NRE projects by providing suitable measures for connectivity with the Grid. The petitioner stated that even though various State ERCs have announced measures for connectivity with Grid in respect of NRE projects in the light of the above mentioned provision, APERC had not specified measures in respect of NRE projects under Section 86 (1) (e) of the Act for connectivity with the Grid. The petitioner further stated that the Act has not prohibited the licensees from approaching the Hon'ble Commission seeking approval to measures for connectivity with the Grid in respect of NRE projects under Section 86 (1) (e) of the Act and accordingly, the licensees had filed the petition under Section 86 (1) (e) of the Act, along with other provisions of the Act, seeking approval to power evacuation guidelines for Wind Power Projects and as such, the Petition is not contrary to Section 86 (1) (e) of the Act. Further, the petitioner stated that the Petition filed by the petitioners provided a platform for participation by all concerned stakeholders in the proceedings and put forth their views before the Hon'ble Commission and as such, no prejudice is caused to the Respondent.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

CHIEF GENERAL MANAGER P & MM & IPC

APSPDCL :: TIRUPATI

The Commission has examined the contention of InWEA. An order on determination of tariff / power purchase price in respect of "New Wind based Power Projects" was issued on 01-05-2009. It is necessary to have an approved set of guidelines, format of PPA in furtherance of the order of 01-05-2009. NEDCAP has informed during the course of hearing that some of the developers are already coming forward to sign PPAs and commission the project before 31st March 2010, based on the PPA and guidelines finalized by the AP Transco and if the same are approved by the Commission, all the obstacles for investment in Wind sector would vanish. Further, IWTMA assured the Commission that investment would be forthcoming once PPA and guidelines are approved by the Commission. Commission does not want to come in the way of attracting investments in the State of A.P. Further, Commission has no hesitation in holding that approval of evacuation guidelines is squarely covered by the provision "promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid" as mentioned under section 86 (1) (e) of the Electricity Act 2003. For all the reasons mentioned above, the Commission considers that the contention of InWEA can not be accepted.

(viii) Whether the evacuation costs beyond metering point should be borne by STU: INWEA stated that as per the Electricity Act, the STU is required to plan and develop intra-state transmission for smooth flow of electricity

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

OASAPSPOCE !: TIRUPATI

from generating station to load centre. InWEA further stated that Forum of Regulators also had reported that grid connectivity for RE sources should be optimally provided by licensees through their CAPEX plans submitted to appropriate Commission for approval and that the Rajasthan ERC also had stipulated that transmission licensees are responsible for the development of the evacuation system beyond pooling substation till the nearest grid substation. InWEA finally stated that the draft PPA and guidelines should be suitably amended specifying that the licensees shall be responsible for development of system beyond the Interconnection Point (metering point). In response, the petitioner stated that Section 10 of the Electricity Act 2003 specified the duties of generating companies. Further, the petitioner stated that this section stipulated that it shall be the duty of the generating company to establish, operate and maintain generating stations, tie-lines, substations and dedicated transmission lines, connected therewith in accordance with the provisions of the Act or the rules or regulations made there under. The petitioner further stated that the evacuation line from the interconnection point (metering point) of the generating project to existing Grid will be a tie-line or dedicated transmission line for interfacing the generating project with the Grid and as such, as per the above provision of the Act, the Wind developers have to establish the evacuation line beyond the interconnection point (metering point) to the Grid. The petitioner also stated that the Hon'ble Commission in its orders dated 1.5.2009 in OP Nos.6 & 7 of 2009, adopted Wind Power

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

CHIEF GENERAL MANAGER
P & MM & IPC
APSPDOL :: TIRUPATI

Project cost as Rs.4.70 Crs/MW including evacuation cost and arrived at a tariff of Rs.3.43/unit, however, finally the Hon'ble Commission fixed tariff for wind power projects at Rs.3.50/unit in order to encourage this sector. Finally, the petitioner opined that in view of the above position, the developers shall have to bear the entire cost of evacuation for connecting Wind Projects to the Grid and delivery of power.

On this, the Commission is generally in agreement with the views of the petitioners namely 4 Discoms and AP Transco as narrated above. Further, it is also to be recalled that when GoAP issued its new Wind Policy cognizing the views of IWTMA vide G.O Ms.No.48, dt.11-04-2008 as amended by G.O Ms. No. 99, dt. 9.9.2008, it was clearly mentioned that the eligible developer shall bear the entire cost of power evacuation facilities for interconnecting the wind firm with the Grid and delivery of power. It is thus clear that the wind developers are in agreement with the above provision of the policy as it relates to evacuation cost. The cost of evacuation by the developer was taken into consideration in arriving at Rs.3.43 / unit. The tariff of Rs.3.50 / unit was finally determined to encourage generation of wind power in the state of AP, thus providing additional 7 paise per unit. Further, it may be noted that, it is only the InWEA that is raising this issue and IWTMA did not raise this issue at all, implying that the above provision on evacuation cost are workable. That apart, the touchstone on which the effectiveness of any policy can be

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

OF MATCONE BY BUILDING BE

CHIEF GENERAL MANAGER
OAS AVEAS MINIS IPC
APSPECL :: TIRUPATI

tested is whether it is able to attract any investment or not. In this case, both based on policy announced by the GoAP and based on the orders passed by the Commission on 01-05-2009, and based on PPA and evacuation guidelines proposed by the AP Discoms/AP Transco, 16 number of PPAs totaling to a capacity of 16.8 MWs have been signed and submitted to the Commission seeking consent, precisely in the same format of PPA and based on the guidelines now sought to be approved. This is a proof positive that investments are forthcoming based on the existing Policy / Order / PPA / Evacuation Guidelines. That being the case, the Commission feels that the issues raised by InWEA are only hypothetical in nature at least in AP situation based on the current level of network expansion and guidelines submitted by the petitioner and hence, they do not warrant any changes in the guidelines on evacuation or PPA format.

be allowed: InWEA stated that the proposed guidelines and the draft PPA proposed interconnection point for cluster of wind farms as EHV side of pooling substation. However, in respect of wind projects developed as individual projects, it is proposed at APTRANSCO/DISCOM substation. InWEA opined that this is discriminatory and that the CERC also has not provided any differential treatment for wind projects under cluster scheme and individual projects and as such, PPA and guidelines should be suitably amended specifying that metering point shall be online isolator on outgoing

D:\APERC Office\aperc gov.in\Final Wind Order\_300310.doc For NATCO POWER PRIVATE LIMITED

> N. SADASIVA RAO Director

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

feeder on HV side at pooling substation for all wind projects. In response, the petitioner stated that the CERC regulation has not mentioned the interconnection point for Wind Power projects coming up at specific location as an individual project without having a Pooling substation and hence reference to CERC Regulation is irrelevant. The petitioner further stated that as per the existing procedure, Wind power projects and other NRE projects coming up as independent projects at specific locations have to be interfaced to the nearest substation with dedicated line and metering shall be provided at substation. The petitioner also stated that very less capacity of Wind Power Projects will come up as individual projects and these projects can directly feed power to the existing grid substations through dedicated feeders without constructing another pooling substation. As such, metering for these projects is proposed as per the existing norms approved by the Hon'ble Commission for individual NRE projects and the same may be approved. On this, NEDCAP also stated that in AP, plants are coming as clusters and not as individual projects. The Commission having considered the above views feels that since individual projects are unlikely to come in AP, no changes are warranted to the either guidelines or PPA as submitted by the petitioner.

(x) Whether deemed generation clause needs to be incorporated into the PPA: InWEA stated that necessary clauses of remedy (to provide compensation for deemed generation) should be incorporated in PPA

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

CHIEF GENERAL MANAGER

GAS AVIZEGAMM & IPC

APSPDCL :: TIRUPATI

against default by APTRANSCO /DISCOM in timely completion of evacuation scheme and breakdown or outages of evacuation infrastructure. response, the petitioner stated that the evacuation guidelines and draft PPA clearly specified that the Wind developers can also carryout evacuation infrastructure development by paying supervision charges. The petitioner further stated that the draft PPA format at Article 6.2 provides that DISCOM shall make arrangements for evacuation of power prior to COD. Article 4.19 also provides that DISCOM shall use all reasonable efforts to rectify system emergency circumstances causing reduction in generation Further, the petitioner also stated that the Wind as soon as possible. Projects are must run stations and DISCOMs have to purchase energy as and when generated by these projects and deemed Generation clause is associated only where generator has to give availability declaration and subjected to scheduling and dispatch and compensation/ penalty is leviable on generators, in case of default. The Commission having considered the views of all the parties, and duly examining the provisions of the PPA at Article 4.19 and 6.2, and also recognizing that the option of carrying out infrastructure development is also available to the wind developer, and further having come to an understanding that there is no motivation for Discoms not to off-take renewable power, in view of the Renewable Power Purchase obligation (RPPO), cast upon the Discoms, obligating to buy a minimum of 5% of their purchases, is of the view that the existing provision of the PPA, which were also evolved in consultation with NEDCAP and

D:\APERC Office\aperc.gov.in\Final Wind Order\_300310.doc

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

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

Ditector

prospective wind developers, is in order and accordingly no changes are warranted on this account in the PPA format.

7. The Commission having examined the key issues in para '6' supra hereby approves the Guidelines on Power Evacuation from Wind Power Projects in Andhra Pradesh (Annexure-1) and PPA format (Annexure-2) as annexed to this order duly incorporating the changes as approved in the preceding paragraphs of this order and certain other changes to add clarity. From now on the parties to the agreement should execute the agreement as per the Commission's approved PPA.

8. The Commission hopes that the final guidelines and standard PPA will make sure that Andhra Pradesh will see some major capacity addition from wind in the coming years.

This order is signed by the Andhra Pradesh Electricity Regulatory

Commission on this 30<sup>th</sup> day of March 2010.

Sd/-C.R.Sekhar Reddy Member

Sd/-R.Radhakishen, Member

Sd/-A.Raghotham Rao, Chairman

CERTIFIED COPY

FOR NATCO POWER, PRIVATE LIMITED

N. SADASIVA RAO Director

D:\APERC Office\aperc.gov.in\Final Wind Order 300310.doc

CHIEF GENERAL MANAGER

## ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION 4<sup>th</sup> & 5<sup>th</sup> Floors, Singareni Bhavan, Red Hills, Hyderabad-500 004

O.P No.7 of 2012

Dated: 11-07-2012

#### Present

Sri A.Raghotham Rao, Chairman Sri C.R.Sekhar Reddy, Member Sri R.Ashoka Chary, Member

In the matter of

Indian Wind Energy Association (InWEA)
Having its registered office at
PHD House, 3<sup>rd</sup> Floor, Asian Games Village,
August Kranti Marg, New Delhi – 110 016.
Rep. by its Secretary.

.... Petitioner

AND

Transmission Corporation of Andhra Pradesh Ltd (APTRANSCO)
Vidyut Soudha, Khairathabad, Hyderabad. ..... Respondent

This petition coming up for hearing on several dates including on 21.05.2012, in the presence of Sri Arijit Maitra, Advocate, Sri Ajit Pandit, for the petitioner and Sri P.Shiva Rao, and Sri G.Brahmananda Rao, Advocates for the respondent and having stood over for consideration to this day, the Commission delivered the following:

#### ORDER

This petition is filed by the petitioner seeking modification of the guidelines in the order dated 30.03.2010, for evacuation of power from Wind Power Projects in Andhra Pradesh in line with Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulation 2010, in pursuance of Regulations 6 (4) and Regulations 49 of APERC (Conduct of Business) Regulations, 1999 and APERC (Conduct of Business) Amendment Regulations, 2000 and Section 94 (1) (f) of Electricity Act, 2003.

FOR NATCO POWER PRIVATE LIMITED

-1-

CHIEF GENERAL MANAGER
PRIM & IPC
APSPDCL :: TIRUPATI

- In the said petition it is mentioned by the petitioner association that: 1.
  - This Commission issued order dated 30.03.2010 approving guidelines for evacuation of power from wind energy projects and standard format for PPA. However, the Commission has not allowed choice to the developer to select size, type loading of the conductor at 33 kV.
  - The said order of the Commission did not specify any control ii) period or limitation period for applicability thereby implying that condition mentioned in the said order continue to be applicable till modified or amended. In view of the above, the respondent is imposing the restrictive conditions for limiting wind energy evacuation upto 10 MW that 33 kV and for evacuation of capacity in excess of 10 MW at higher system voltages at 132 kV.
  - Recently CEA issued Central Electricity Authority (Technical iii) Standards for Construction of Electrical Plants and Electrical Lines) Regulation 2010 which has been notified on August 20, 2010. The said Regulation covers the type of conductors to be used for transmission and distribution lines. Considering the mandate given to CEA, it would be necessary that norms in the State of AP should also be in conformity with the norms issued by CEA for development the grid and standardization.
  - In support of its claim for modification of the guidelines issued by iv) APERC in its order dated 30.03.2010, the petitioner mentioned various grounds in its petition and also mentioned evacuation system arrangements in other States.
- The said petition was returned informing the petitioner to explain as to 2. how the petition is maintainable. On 19.08.2011 the petitioner filed written submissions, wherein it is stated that:

The State Commission shall discharge under Section 86 (1) the a) following functions, namely:-

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director

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

N SADASIVA RAG

- b) Providing flexibility of choice of conductor enabling Wind Energy Generators to evacuate more power at 33 kV from the same line consequently resulting in optimum utilization of Electric lines as well as curtailment of extra cost for the wind generators are suitable measures for connectivity with the grid that the Commission is mandated to provide under Section 86 (1) (e) of the 2003 Act.
- c) It is technically feasible to evacuate higher capacity in terms of MW using conductors which allow higher line loading in Amp, rather than restricting it to 10 MW. For example with conductor such as ACSR Panther or AAAC Panther allows wind energy generators to easily inject 15 to 25 MW power at 33 kV.
- d) The Commission can sustain the change in policy where it would have properly balanced the legitimate expectation of the wind energy generators as against the need for a change.
- e) The Central Electricity Authority (CEA) is required to notify Regulations under Section 73 (b) read with Section 177 (2) (e) specifying the technical standards for construction of electrical plants electric lines and connectivity to the grid.
- f) Accordingly, the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010 (hereinafter referred to as "CEA Regulations 2010") came to be notified. There is no reason why CEA Regulations 2010 should not be binding. In sharp contrast, the discretion under Section 61 (a) to "be guided by" the principles and methodologies specified by the Central Commission for determination of the tariff is not present in regard to CEA Regulations 2010.
- g) As far as the petitioner is aware, to date, no change has been made by the Parliament to the CEA Regulations 2010.
- h) The CEA Regulations 2010 have binding force, as they are statutory in nature. It is delegated legislation enacted under the powers

FOR NATCO POWER PRIVATE LIMITED TIME TAVISTE REV.

N. SADASIVA RAO

- 3 -

CHIEF GENERAL MANAGER

- conferred upon CEA by the primary legislation i.e., under Section 73 (b) read with Section 177 (2) (e) of the 2003 Act.
- i) The Hon'ble Supreme Court has held in its judgment dated March 15, 2010 in PTC India Ltd Vs. CERC [reported in AIR 2010 SC 1338] that a Regulation stands on a higher pedestal vis-à-vis an order (decision) in the sense that an order has to be in conformity with the regulations.
- j) The Commission's order dated 30.03.2010 is required to be aligned to the CEA Regulations, 2010.
- k) The validity of the CEA Regulations, 2010 cannot be tested in any proceedings before this Commission.
- This Commission is empowered in law to review its order dated 30.03.2010 in terms of Section 94 (1) (f) of the 2003 Act read with Regulation 49 if the APERC (Conduct of Business) Regulations, 1999 (hereinafter referred to as the "Conduct of Business").
- m) The CEA Regulations 2010 were notified on 20<sup>th</sup> August, 2010. Thus, the requirement to review this Commission's order dated 30.03.2010, arises much after the limitation period of 90 days specified under Regulation 49 of the Conduct of Business, in any case. However, an issue would arise as to whether this Commission would allow its said order dated 30.03.2010 to continue particularly when it is apparent on the fact of records that the said order is contrary to the CEA Regulations, 2010.
- n) There has been a change in law subsequent to the notification of the CEA Regulations, 2010 which necessitate the review of this Commission's order dated 30.03.2010.
- The primary concern of this Commission is to implement the justice of the legislation contained in the CEA Regulations, 2010.
- p) The time of 90 days specified under Regulation 49 of the Conduct of Business, to file review petition can be extended under Regulation 59 thereof.
- q) Even under Section 5 of the Limitation Act, an application may be admitted after the prescribed period if the applicant satisfies the

WER PRIVATE LIMITEDETIMILETAVISE SEN

- 4 -

CHIEF GENERAL MANAGER
P & MM & IPC
AS APSPOCL :: TIRUPATI

N. SADASIVA RAO Director

- Court that he had sufficient cause for not making the application within such period.
- r) The following Regulations sufficiently empower this Commission to admit the present petition and to review or modify its aforesaid order dated 30.03.2010 even though the limitation period for filing review may have expired.
  - 55. Saving of inherent power of the Commission.
  - Nothing in these Regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for meetings the ends of justice or prevent the abuse of the process of the Commission.
  - Nothing in these Regulations shall bar the Commission from adopting a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing deems it necessary or expedient.
  - Nothing in these Regulations shall, expressly or impliedly, (3)bar the Commission to deal with any matter or exercise any power under the Act for which no Regulations have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.
- In support of its contention raised in the petition, the petitioner s) relied upon a ruling reported in 2010 SCC (1338) by the Hon'ble Supreme Court of India.
- Upon hearing the counsel for the petitioner on 24.08.2011, Commission 3. decided to take the petition on to its file vide its order dated 06.01.2012.
- Notice was issued to the respondents and on 21.05.2012 a 'reply' was 4. filed on behalf of the respondent, inter-alia stating that
- Approval of evacuation guidelines is covered by the provision mentioned a) u/s 86 (1) (e) of Electricity Act, 2003. Hence, the said order shall be applicable till modified or amended. The Commission approved the limit of 10 MW duly considering the less load availability in DISCOMs.

N. SADASIVA RAO Director

CHIEF GENERAL MANAGER P & MM & IPC

- As per the directions of Commission, a meeting was conducted on 16.05.2012 between the representatives of the petitioner as well as the respondent herein on power evacuation issues and it is jointly decided that:
  - (i) The developer shall have the discretion in choosing the conductor for connecting wind generator to the pooling substation of the developer subject to the CEIG approval.
  - (ii) The developer is allowed to inject a maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM substation.
  - (iii) The developers connecting at 33 kV level to the EHT SS, the maximum injection is limited upto 25 MW in case of single conductor 33 kV Bus and up to 40 MW in case of double conductor 33 kV Bus, subject to transformation capacity. Injection of power may be in one or more circuits depending up on availability of bays in that substation and loading per circuit not exceeding 25 MW.
  - (iv) Injection of power by wind developer from pooling substation to EHT substation at EHT level may be as per system studies.
- c) In the order dated 30.03.2010 it is approved by the Commission, that the limit of power to be transferred at specific voltage level is characterized by current carrying capacity of the conductor and voltage regulation and as such, there was requirement to specify the permissible capacity on specific conductor at specific voltage. During the meeting with the petitioner, it is agreed to allow choice of selecting the conductor upto the pooling substation to be left to the discretion of developer.
- d) The wind power projects are having low capacity utilization factor. As such , the licensees have proposed higher norms for wind power capacity flow at 33 kV level connecting to HTSS higher than the norms stipulated in the earlier orders.
- e) Commission may take appropriate decision for modification of amendments in the existing guidelines.
- f) In order to harness the available wind potential helpful in meeting the RPPO, it was jointly agreed to modify the existing guidelines with respect to conductor type and permissible capacity as mentioned at para 2 (b) supra.

g) Commission may pass appropriate orders formulating the normative parameters and its values.

FOR NATCO POWER PRIVATE LIMITED

GETIMIL STAVING COSTANIANS

- 6 -

P & MM & IPC
APSPDGL :: TIRUPATI

N. SADASIVA RAO Director

- On 21.05.2012 Secretary General of the petitioner association filed an 5. affidavit mentioning the meeting conducted by the representatives of the respondent with those of the petitioner and requested the Commission to review and modify its order dated 30.03.2010 and (i) to allow discretion to wind energy developers and choosing the conductor for connecting wind generator to the Pooling sub-station of the developer subject to CEIG approval (ii) to allow the wind energy developers to inject the maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM sub-station (iii) to provide that the developers connecting at 33 kV level to the EHT SS, the maximum injection be limited upto 25 MW in case of single conductor, 33 kV Bus and upto 40 MW in case of double conductor, 33 kV Bus, subject to transformation capacity and that injection of power may be in one or more circuits depending upon availability of bays in that sub-station and loading per circuit not exceeding 25 MW (iv) to provide that injection of power by wind developer from pooling sub-station to EHT sub-station at EHT level may be as per system studies.
- Heard the counsel for the parties concerned.
- 7. The petitioner filed the above said petition for placing on record minutes of meeting held on 16<sup>th</sup> May, 2012 as follows:
- a) The Commission during the hearing held on 23<sup>rd</sup> April, 2012 and further during the hearing held on 14<sup>th</sup> May, 2012, graciously indicated to the petitioner and the respondents to hold meeting and discuss the impending modifications to this to this Commission's order dated 30<sup>th</sup> March, 2010 for allowing Wind Energy Generators to exercise their choice of installing conductors inline with the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010.
- b) Based on the above, Counsel appearing for Andhra Pradesh Distribution Company Ltd., during the hearing on 14<sup>th</sup> May, 2012 undertook to withdraw the reply dated 3<sup>rd</sup> May, 2012 filed by the said respondent in order to give effect to and comply with the aforesaid oral directions of this Commission.

FOR NATCO POWER PRIVATE LIMITED DATING NATO

N. SADASIVA RAO

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

- 7 -

- C) Pursuant to the above, a meeting was organized on 16<sup>th</sup> May, 2012 by APTRANSCO in a Technical Committee comprising of Director (Grid Operation / APTRANSCO, Director (Transmission) / APTRANSCO, Director (Projects) / APTRANSCO, JMD (Distribution) / APTRANSCO, member from APPCC-JMD (HRD, Comml, IPC & IT) / APTRANSCO and representatives for the petitioner Indian Wind Energy Association. The following were agreed in the aforesaid meeting:
  - i) The developer shall have the discretion in choosing the conductor for connecting wind generator to the pooling substation of the developer subject to the CEIG approval.
  - ii) The developer is allowed to inject a maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM substation.
  - iii) The developers connecting at 33 kV level to the EHT SS, the maximum injection is limited upto 25 MW in case of single conductor 33 kV Bus and upto 40 MW in case of double conductor 33 kV Bus, subject to transformation capacity. Injection of power may be in one or more circuits depending upon availability of bays in that substation and loading per circuit not exceeding 25 MW.
  - iv) Injection of power by wind developer from pooling substation to EHT substation at EHT level may be as per system studies.

A copy of the aforesaid Minutes of Meeting duly signed by the all the aforesaid constituents of the Technical Committee is filed.

- The petitioner has prayed that the Commission may
- a) be pleased to review and modify its order dated 20<sup>th</sup> March, 2010 to allow discretion to the Wind Energy Developers in choosing the conductor for connecting Wind Generator to the pooling substation of the developer subject CEIG approval.
- b) be pleased to review and modify its order dated 30<sup>th</sup> March, 2010 to allow the Wind Energy Developers to inject the maximum of 10 MW from Pooling Sub-Station of the Wind Generator to the existing 33 / 11 kV DISCOM Sub-Station.

For NATCO POWER PRIVATE LIMITED

- 8 -

CHIEF GENERAL MANAGER
P & MM & IPC

- be pleased to review and modify its order dated 30th March, 2010 to C) provide that the developers connecting at 33 kV level to the EHT SS, the maximum injection be limited upto 25 MW in case of single conductor, 33 kV Bus and upto 40 MW in case of double conductor, 33 kV Bus, subject to transformation capacity and that injection of power may be in one or more circuits depending upon availability of bays in that Sub-station and loading per circuit not exceeding 25 MW;
- be pleased to review and modify its order dated 30th March, 2010, to d) provide that injection of power by Wind Developer from pooling Sub-station to EHT Sub-station at EHT level may be as per system studies;
- be pleased to pass any other order as may be just and necessary in the facts and circumstances of the present case.
- 9. Now the point for consideration is, whether the petitioner is entitled to seek a review of the order of the Commission dated 20.03.2010? If so in what manner?
- The respondent has submitted a Memo withdrawing the reply filed by the 10. respondent on 16.05.2012 by stating that they will file the same after negotiations by modifying the same, if necessary.
- The respondent has not filed any reply of modifications but the petitioner 11. has filed an affidavit narrating the negotiations and conclusions arrived at by the Committee as per the directions of the Commission. The minutes of meeting held on 16.05.2012 have been accepted and signed by both the sides viz., the representatives of APTRANSCO as well as the InWEA.
- 12. In view of the above circumstances, the Commission hereby reviews the order dt.30.03.2010 and in partial modification of the guidelines contained therein, hereby orders that:
  - The developer shall have the discretion in choosing the conductor for connecting wind generator to the pooling substation of the developer subject to the CEIG approval.

N. SADASIVA RAO

CHIEF GENERAL MANAGER P & MM & IPC

- ii) The developer is allowed to inject a maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM substation.
- iii) The developers connecting at 33 kV level to the EHT SS, the maximum injection is limited upto 25 MW in case of single conductor 33 kV Bus and upto 40 MW in case of double conductor 33 kV Bus, subject to transformation capacity. Injection of power may be in one or more circuits depending upon availability of bays in that substation and loading per circuit not exceeding 25 MW.
- iv) Injection of power by wind developer from pooling substation to EHT substation at EHT level may be as per system studies.
- 13. Hence, this petition is ordered accordingly.

The order is signed on this 11th day of July, 2012.

Sd/-(R.ASHOKA CHARY) MEMBER Sd/-(C.R.SEKHAR REDDY) MEMBER Sd/-(A.RAGHOTHAM RAO) CHAIRMAN

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

CHIEF GENERAL MANAGER

SCHEDULE-IV

#### Annexure-1

### <u>Guidelines on Power Evacuation</u> from Wind Power Projects in Andhra Pradesh

- The Wind power projects are mostly developed as cluster. The power evacuation scheme for such cluster projects consists of the following:
  - (a) Laying of 33 KV feeders for evacuation of power from all Wind projects in a site.
  - (b) Construction of Extra High Tension Substation (EHT SS) (Receiving / Pooling SS) for grouping the total Wind power and step up to higher Voltage level.
  - (c) EHT Line for interfacing Pooling SS to existing nearest APTRANSCO network.
- In case of Wind power projects which may come up as independent projects at a particular location, they will normally be interfaced to nearest grid SS at available Voltage level.
- 3. The Power Evacuation from prospective Wind power projects will be governed by the guidelines mentioned below:

## (i) Voltage level of evacuation:

#### At 33 KV level:

The Wind power projects supply intermittent energy. These are seasonal and operate at low capacity. As such, evacuation of Wind power at 33 KV level is permitted as mentioned below duly taking into consideration of the type of conductor to be used and corresponding current carrying capacity as per the Bureau of Indian Standards (BIS) vide IS398/Part-IV:

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

SI.	Project	interfacing	Type of	Current	Calculated	Proposed Wind
No.	From	То	AAAC Conductor (size)	carrying capacity at 45° ambient temp. as per standard	power carrying capacity at 33 KV level	power capacity on each 33 KV line considering the temp. rise in conductor
(A)	(B)	(C)	(D)	(E)	(F) = (/3 x33 KV x Current X PF at 0.9)	(G)
1	Wind	Existing	55 sqmm	173 Amps	8.91 MW	8 MW
3	project	33/11 KV	19 33 34	10 MW*		
	project	DISCOM SS	150 sqmm	370 Amps	19.05 MW	
2	Wind	EHT	55 sqmm	173 Amps	8.91 MW	8 MW
L	project		100 sqmm	254 Amps	13.08 MW	12 MW
		or existing EHT APTRANSCO SS estricted consi	150 sqmm	370 Amps	19.05 MW	17 MW

#### At EHT level:

Project interfacing		EHT Level	Existing	Proposed Wind power	
From	То		permissible capacity	capacity	
Pooling SS	Existing APTRANSCO EHT SS	132 KV	40 MW	(i) Up to 50 MW on SC Line (ii) Above 50 MW to 100 MW on DC Line	
Pooling SS	Existing APTRANSCO EHT SS	220 KV	80 MW	Above 100 MW	

The above evacuation facilities are permitted specifically for Wind power projects only, considering the following:

(a) The Wind power projects are renewable and have low Capacity Utilization Factor (CUF).

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

(b) The Wind power projects are seasonal and operate at lesser capacity during most of the time.

(c) The optimum utilization of infrastructure will help the Wind power projects to enhance financial viability.

The above provisions shall not be adopted for other Non-conventional power projects, Conventional power projects and any other projects.

(ii) Metering Point and energy accounting:

(a) For Wind power projects coming under cluster scheme:

The common metering for Wind projects connected to a Pooling Substation (SS) shall be provided at EHT side of Power Transformer (PTR) in Pooling SS. This point shall be considered as Interconnection point where energy is delivered by each Wind power project to grid for sale. Also, metering for each individual project shall be provided at Project's switchyard (on 33 KV side of 415 V/33 KV Generator Transformer). As such, each Wind power project will have two metering points, one at Project's switchyard and another metering point is common metering point at EHT Pooling SS.

The DISCOM Officers & Wind Power Producer's representative shall take Joint meter readings for individual meters '(at Project's switchyard) and common meter (at EHT side of pooling SS) every month.

The DISCOM will make payment to each Wind power project for delivered energy, which shall be calculated as per the formula mentioned below:

Delivered Energy to be billed for an individual project =  $X_1$  -  $(X_1 \times Z_2)$ 

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

Where

 $X_1$  is the reading of the energy meter installed at the Project Site. Z is the percentage line loss incurred in the 33 KV line between the Project and

the Pooling (Receiving) Station and shall be:

$$Z = \begin{cases} \frac{(X_1 + X_2 + X_3 + X_4 + \dots) - Y}{(X_1 + X_2 + X_3 + X_4 + \dots)} & x & 100 \end{cases}$$

Y is the reading of the common meter installed on EHT side of the Pooling SS and  $X1, X_2, X_3, X_4$  etc. are the readings of the energy meters installed at the various individual Wind projects connected to the Pooling Station.

## (b) For Wind power projects coming as individual projects:

Metering shall be provided at designated APTRANSCO /DISCOM SS. The DISCOM Officers & Wind Power Producer's representative shall take Joint meter readings every month. The DISCOM will make payment for the energy recorded by the meter provided at SS.

#### Cost of power evacuation: (iii)

## (a) For Wind power projects coming under cluster scheme:

The Cluster Project Developers and Wind Power Producers shall bear the entire cost for interconnecting the Wind projects with the grid and delivery of energy for sale, but not limited to, cost of 33 KV networks for interfacing individual Wind power projects to the Pooling SS, the cost of Pooling SS, Metering at individual project sites & Pooling SS etc., and cost of EHT line for interfacing Pooling SS with APTRANSCO network including cost of additional infrastructure on APTRANSCO side, required if any.

## (b) For Wind power projects coming as individual projects:

The entire cost of evacuation shall be borne by the Wind Power Producer along with metering facility at SS and cost of necessary modifications/augmentations required, if any, at Grid SS.  $_{\Lambda}$ 

FOR NATCO POWER PRIVATE LIMITED

N SADASIVA RAO

CHIEF GENERAL MANAGER P & MM & IPC

## (iv) Owning & O & M of infrastructure for lifetime:

The ownership of 33 KV network along with Pooling SS will be with the Wind Power Producers, who will own the Wind power projects connected to the Pooling SS. It shall be the duty of the Wind Power Producers, being the owners of the generating companies to operate and maintain the 33 KV network and Pooling SS as per the rules and regulations made for the purpose.

After completion of work, the ownership of EHT Line from Pooling SS to APTRANSCO grid shall be transferred to APTRANSCO and APTRANSCO shall carryout O&M of EHT line.

# (v) Power evacuation scheme finalization & sanctioning of estimate:

The Cluster Project Developer or Wind Power Producers shall approach APTRANSCO with the details of proposed Wind power project scheme, which shall include proposed Wind power capacity, the location of Project, the proposed site & capacity of Pooling SS, nearest APTRANSCO grid to which the project is intended for interfacing, EHT Line voltage level etc.

APTRANSCO will study the proposed scheme and will intimate the feasibility for power evacuation. The APTRANSCO will approve the power evacuation scheme and also sanction the necessary estimates. APTRANSCO will also approve necessary drawings.

With regard to 33 KV networks, the Cluster Project Developer or Wind Power Producers shall approach the concerned DISCOM, who will sanction necessary estimates and drawings.

# (vi) Execution of Power evacuation work & Synchronization of Wind power projects with grid for commercial operation:

APTRANSCO / DISCOM will take up the evacuation work on payment of total estimated cost by the Cluster Project Developer and / or Wind

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

P & MM & IPC

APSPDCL :: TIRUPATI

Power Producers. Alternatively, the Cluster Project Developer and / or Wind Power Producers can take up the work on turnkey basis by paying supervision charges to APTRANSCO / DISCOM.

The supervision charges applicable to Wind power projects will be as follows:

- 5% supervision charges on 33 KV network from Wind power projects to Pooling SS.
- (ii) 5% supervision charges on EHT Pooling Substation upto common metering point on HV side, which will be the interconnection point with the grid.
- (iii) 10% supervision charges on EHT System beyond interconnection point.

The above concessional supervision charges are applicable specifically for Wind power projects only, considering the following:

- (a) Wind power projects are renewable in nature and there is a need to encourage such renewable sources of power.
- (b) Andhra Pradesh is having one of the highest Wind potential but lowest investments. There is a need to maximize the utilization of such potential of renewable power.

The above concessional supervision charges are applicable to Wind power projects only and shall not be adopted for other Non-conventional power projects, Conventional power projects and any other projects.

The concessional supervision charges are applicable only for estimates to be sanctioned in future for evacuating energy from Wind power projects.

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

Where works are entrusted on turnkey basis, APTRANSCO Officers along with concerned DISCOM Officers shall supervise the evacuation works awarded on turnkey basis. The Cluster Project Developer and Wind Power Producers shall strictly adhere to the conditions stipulated in sanctioned estimate.

The Cluster Project Developer or Wind Power Producers shall file an application with DISCOM and obtain Temporary Power Supply for construction purpose. The Cluster Project Developer or Wind Power Producers shall have to pay all applicable charges for availing temporary power supply.

The metering for Wind projects shall be provided as per the standards laid down by APTRANSCO / DISCOM from time to time. The meters shall be tested at Central Government approved laboratory before installation. The Meters shall be installed and sealed by the authorized Officers of APTRANSCO and DISCOMs only.

After complete erection of the power evacuation infrastructure, the concerned Officers of APTRANSCO & DISCOMs shall inspect the same and confirm readiness for energisation. The Cluster Project Developer and / or Wind Power Producers shall obtain required approvals from Chief Electrical Inspector to the Government (CEIG) and other Government agencies as required from time to time.

The APTRANSCO & DISCOM shall issue permission for extending temporary supply for testing of Wind projects along with associated equipment. Power supplied from the grid to Projects during testing will be charged at HT-I Temporary Tariff and will be collected by DISCOM. The energy pumped into the grid during testing, if any, up to commencement of Commercial Operation shall be free of cost. This energy need not be taken into account for billing. The Officers of DISCOMs & APTRANSCO will witness testing and satisfactory performance of Wind projects.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER P & MM & IPC

The concerned DISCOM will issue permission for synchronization of Wind projects with the Grid for Commercial Operation and date on which 1<sup>st</sup> Wind generator of Project synchronizes with the grid for Commercial Operation shall be the Commercial Operation Date (COD) of the project.

#### (vii) Addition of loads to Pooling SS:

Whenever necessity arises, the Wind Power Producers shall permit APTRANSCO & DISCOM to connect loads to the Pooling SS at EHT level after the metering point without asking any compensation. However, the APTRANSCO & DISCOM shall ensure that connection of loads to Pooling SS will not have adverse effect on power evacuation from Wind power projects.

The APTRANSCO & DISCOM shall bear cost of new infrastructure proposed and also shall bear the cost of O & M of new infrastructure.

#### (viii) Execution of PPAs:

The Power Purchase Agreement (PPA) between the wind power producer and the Discom shall be as per the standard format approved by Andhra Pradesh Electricity Regulatory Commission (APERC).

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

CHIEF GENERAL MANAGER P & MM & IPC



[Price : ₹. 1-00 Paise.



## ఆంధ్ర ప్రదేశ్ రాజ ప్రతము THE ANDHRA PRADESH GAZETTE

PART-II EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. 56 ]

HYDERABAD, FRIDAY, JULY 31, 2015.

## NOTIFICATIONS BY HEADS OF DEPARTMENTS, Etc.

## ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

Terms and Conditions for Tariff Determination for Wind Power Projects in the State of Andhra Pradesh for the period FY2015-16 to FY2019-20

Regulation No. 01 / 2015

In exercise of the powers conferred by Sections 61 and 86 read with Section 181 of the Electricity Act, 2003 (Central Act 36 of 2003), and all other powers enabling it in this behalf and after previous publication, the Andhra Pradesh Electricity Regulatory Commission hereby makes the following regulations, namely:

#### 1. Short title and commencement:

- (1) These regulations may be called the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff determination for Wind Power Projects) Regulations, 2015.
- (2) These regulations shall come into force from the date of their publication in the official Gazette and, unless reviewed earlier or extended by the Commission, shall remain in force up to 31\* March, 2020.

#### 2. Definitions and Interpretation:

- (1) In these regulations, unless the context otherwise requires,-
  - (a) 'Act' means the Electricity Act, 2003 (Central Act 36 of 2003);
  - (b) 'Capital cost' means the capital cost as defined in Regulation 10;
  - (c) 'CERC' means the Central Electricity Regulatory Commission;
  - (d) 'CERC RE Tariff Regulations' means Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012, as amended from time to time.
  - (e) 'Commission' means the Andhra Pradesh Electricity Regulatory Commission;
  - (f) 'Control Period' means the period during which the norms for determination of tariff specified in these regulations shall remain valid;

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

- (g) 'Inter-connection Point' means the line isolator on outgoing feeder on HV side of the pooling sub-station i.e., the sub-station at project site of wind farm which consists of step-up transformer(s) and associated switchgear and to the LV side of which, multiple generating unit(s) i.e., wind turbine generators are connected;
- (h) 'MAT' means Minimum Alternate Tax;
- (i) 'MNRE' means the Ministry of New and Renewable Energy, Government of India;
- (j) 'Non-Conventional Energy' means the grid quality electricity generated from non-conventional energy sources;
- (k) 'Non-Conventional Energy Power Plants' means the power plants other than the conventional power plants generating grid quality electricity from non-conventional energy sources;
- (I) 'Non-Conventional Energy Sources' means non-conventional sources such as mini hydel, wind, biomass, bagasse, industrial waste, urban or municipal waste and other such sources as approved by the MNRE;
- (m) 'Operation and Maintenance expenses' or 'O&M expenses' means the expenditure incurred on operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;
- (n) 'Project' means a generating station or the evacuation system;
- (o) 'Tariff period' means the period for which tariff is to be determined by the Commission on the basis of norms specified in these Regulations;
- (p) 'Useful Life' in relation to a wind power project means Twenty Five years from the date of commercial operation (COD);
- (q) 'Year' means a financial year.
- (2) Save as aforesaid and unless repugnant to the context or the subject-matter otherwise requires, words and expressions used in these regulations but not defined herein and defined in the Act or the Andhra Pradesh Electricity Reform Act, 1998 (State Act 30 of 1998) or the Rules or Regulations made thereunder shall have the meanings assigned to them respectively therein.

#### 3. Scope and extent of application:

These Regulations shall apply to the wind power projects to be commissioned within the State of Andhra Pradesh for generation and sale of electricity wholly or partly to the Distribution licensees within State of Andhra Pradesh subsequent to the date of notification of these Regulations and where tariff for a generating station or a unit thereof based on wind energy source, is to be determined by the Commission under section 62 read with section 86 of the Act.

#### Chapter 1: General Principles

#### 4. Control Period:

The Control Period under these Regulations ends by 31st March, 2020. First year of the Control Period shall commence from the date of notification of these Regulations and shall cover upto the end of the financial year 2015-16:

Provided that the tariff determined as per these Regulations for the wind power projects commissioned during the Control Period, shall continue to be applicable for the entire duration of the Tariff Period as specified in Regulation 5 below.

#### 5. Tariff Period:

(a) The Tariff Period for wind power projects shall be equal to the useful life of the projects as defined under Regulation 2 (p).

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

(b) Tariff period under these Regulations shall be considered from the date of commercial operation of the wind power projects.

#### 6. Proceedings for determination of Tariff:

The Commission shall notify the generic preferential tariff on suo-motu basis at the beginning of each year of the Tariff Period for wind power projects for which norms have been specified under these Regulations:

Provided further that for FY2015-16, the generic preferential tariff on suo-motu basis, shall be notified soon after the publication of the regulations in the official gazette to be applicable with effect from the date of these regulations coming into force.

#### 7. Tariff Structure:

The tariff for wind power projects shall be single part tariff consisting of the following cost components:

- (a) Return on equity;
- (b) Interest on loan capital;
- (c) Depreciation;
- (d) Interest on working capital;
- (e) Operation and Maintenance expenses;

#### 8. Levellized Tariff:

Levellized Tariff is calculated by carrying out levellization for 'useful life' considering the discount factor for time value of money.

The discount factor considered for this purpose is equal to the weighted average cost of capital on the basis of normative debt-equity ratio (70:30) specified under Regulation 11. Considering the normative debt-equity ratio and weighted average of the rates of interest and post tax return on equity, the discount factor is calculated. Interest rate for the loan component (i.e. 70%) of Capital Cost is considered as explained under Regulation 12. For equity component (i.e. 30%), post tax Return on Equity (ROE) of 16% is considered as explained in Regulation 14.

#### 9. Despatch principles for electricity generated from Wind Power Projects:

All Wind Power Projects shall be treated as 'MUST RUN' power plants and shall not be subjected to 'Merit Order Despatch principles' (MOD):

Provided that where the sum of generation capacity of the plants connected at the interconnection point to the transmission or distribution system is 10 MW and above and interconnection point is 33 kV and above, such Wind Power Generation Plants shall be subjected to scheduling and despatch code as specified in Indian Electricity Grid Code (IEGC) – 2010 and/or A.P. State Electricity Grid Code (APSEGC) as amended from time to time.

#### Chapter 2: Financial Principles

#### 10. Capital Cost and Capital Cost Indexation Mechanism:

The norms for the Capital cost shall be generally inclusive of all capital work including plant and machinery, civil work, erection and commissioning, financing and interest during construction (IDC) and evacuation infrastructure.

The capital cost for FY2015-16 shall be '600 lakhs / MW.

The capital cost indexation mechanism as prescribed in the CERC RE Tariff Regulations, 2012 shall be considered as indicated below for arriving at the capital cost of the wind power projects for each year of the Control Period beyond FY2015-16, which shall be notified at the beginning of each financial year.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

The following indexation mechanism shall be applicable for adjustments in capital cost over the control period beyond FY2015-16 with the changes in Wholesale Price Index for Steel and Electrical Machinery.

$$CC_{(n)} = P&M_{(n)}^* (1+F1+F2+F3)$$

$$d_{(n)} = [a^*\{(S|_{(n-1)}/S|_{(0)}) - 1\} + b^*\{(E|_{(n-1)}/E|_{(0)}) - 1\}]/(a+b)$$

Where,

CC (m) = Capital Cost for nth year

P&M<sub>(n)</sub> = Plant and Machinery Cost for nth year

P&M = Plant and Machinery Cost for the base year

Note: P&M<sub>(o)</sub> is to be computed by dividing the base capital cost (for the first year of the control period i.e., FY2015-16) by (1+F1+F2+F3)

d<sub>(n)</sub> = Capital Cost escalation factor for year (n) of control period

SI<sub>(n-1)</sub> = Average WPI Steel Index prevalent for calendar year ending in (n-1) financial year of the control period

 $SI_{00}$  = Average WPI Steel Index prevalent for the calendar year ending in financial year (0) at the beginning of the control period i.e, January 2014 to December, 2014

El<sub>(n-1)</sub> = Average WPI Electrical Machinery Index prevalent for calendar year ending in (n-1) financial year of the control period

El<sub>(0)</sub> = Average WPI Electrical and Machinery Index prevalent for the calendar year ending in financial year (0) at the beginning of the control period i.e., January 2014 to December, 2014

a = Constant to be determined by Commission from time to time, for weightage to Steel Index

b = Constant to be determined by Commission from time to time, for weightage to Electrical Machinery Index

F1 = Factor for Land and Civil Work

F2 = Factor for Erection and Commissioning

F3 = Factor for IDC and Financing Cost

The constants 'a' and 'b' and factors-'F1','F2' and 'F3' are specified and these would be determined by the Commission from time to time.

#### 11. Debt Equity Ratio:

The debt equity ratio shall be 70:30.

#### 12. Loan and Finance Charges:

- (1) Loan Tenure: For the purpose of determination of tariff, loan tenure of Ten years shall be considered.
- (2) Interest Rate:
  - (a) The loans arrived at in the manner indicated in the Regulation 11 shall be considered as gross normative loan for calculation of interest on loan. The normative loan outstanding as on April 1st of every year shall be worked out by deducting the cumulative repayment up to March 31st of previous year from the gross normative loan.
- (b) For the purpose of computation of tariff, the normative interest rate shall be considered as average State Bank of India (SBI) Base rate prevalent during the first six months of the previous year plus 300 basis points.

For NATCO POWER, PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC

(c) Notwithstanding any moratorium period availed by the generating company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

#### 13. Depreciation:

- (1) The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The Salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset.
- (2) Depreciation per annum shall be based on 'Differential Depreciation Approach' using 'straight line' method over two distinct periods comprising loan tenure and period beyond loan tenure over the useful life. The depreciation rate for the first ten years of the Tariff Period shall be 7% per annum and 1.33% for the remaining useful life of the project from 11th year onwards.
- (3) Depreciation shall be chargeable from the first year of commercial operation.

#### 14. Return on Equity:

- (1) The value base for the equity shall be 30% of the capital cost as determined under Regulation 11.
- (2) The normative Return on Equity shall be 16% with MAT/income tax as pass through.

#### 15. Interest on Working Capital:

- (1) The Working Capital requirement shall be computed as follows:
  - (a) Operation and Maintenance expenses for one month,
  - (b) Receivables equivalent to 2 (two) months of energy charges for sale of electricity calculated on the normative Capacity Utilisation Factor (CUF),
  - (c) Maintenance of spares at 15% of Operation and Maintenance expenses.
- (2) Interest on Working Capital shall be computed at the interest rate equivalent to the average State Bank of India Base Rate prevalent during the first six months of the previous year plus 350 basis points.

#### 16. Operation and Maintenance Expenses:

- (1) 'Operation and Maintenance expenses' shall comprise repair and maintenance (R&M), establishment including employee expenses, and administrative and general expenses including insurance.
- (2) Operation and maintenance expenses for the first year of the control period shall be '8.57 lakhs / MW.
- (3) Normative O&M expenses allowed during first year of these Regulations (i.e. FY 15-16) shall be escalated at the rate of 5.72% per annum over balance of the control period.

#### 17. Rebate:

- (1) For payment of bills of the generating company through letter of credit, a rebate of 2% shall be allowed.
- (2) Where payments are made other than through letter of credit within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed.

#### 18. Sharing of Clean Development Mechanism (CDM) benefits:

The proceeds of carbon credit from approved CDM project shall be shared between generating company and concerned beneficiaries in the following manner, namely-

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO

CHIEF GENERAL MANAGER
P & MM & IPC

- 100% of the gross proceeds on account of CDM benefit is to be retained by the project developer (a) in the first year after the date of commercial operation of the generating station;
- (b) In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, whereafter the proceeds shall be shared in equal proportion, by the generating company and the beneficiaries.

#### 19. Taxes and Duties:

- Tariff determined under these regulations shall be exclusive of taxes and duties as may be levied by the Government:
  - Provided that the taxes and duties levied by the Government shall be allowed as pass through on actually incurred basis.
- (b) Income tax/MAT is a pass through and is to be paid by the Distribution Licensees to the developer upon receipt of the claim from the developer. This is over and above the tariff determination made herein.
- (c) Electricity Duty is a pass through and is to be paid by the Distribution Licensees to the developer upon receipt of the claim from the developer. This is over and above the tariff determination made herein.

### 20. Subsidy or incentive by the Government:

The Commission shall take into consideration any incentive or subsidy offered by the Central or State Government, including accelerated depreciation (AD) benefit, if availed by the generating company, for the Wind Power Projects while determining the tariff under these Regulations.

Provided that the following principles shall be considered for ascertaining income tax benefit on account of accelerated depreciation, if availed, for the purpose of tariff determination:

- (a) Assessment of benefit shall be based on normative capital cost, accelerated depreciation, rate as per relevant provisions under the Income Tax Act and Corporate Income Tax Rate.
- (b) Capitalization of Wind Power Projects during second half of the fiscal year. Per unit levellized accelerated depreciation benefit has to be computed considering the post-tax weighted average cost of capital as discount factor (as explained in Regulation 8).

## Chapter 3: Technology specific parameters for Wind Power Projects

#### 21. Capacity Utilization Factor:

The Capacity Utilization Factor (CUF) for the control period shall be 23.5%.

### Chapter 4: Miscellaneous

#### 22. Deviation from Norms:

Tariff for sale of electricity by the Wind Power Project may also be determined in deviation from the norms specified in these Regulations subject to the condition that the levallized tariff over the useful life of the project on the basis of the norms in deviation does not exceed the levallized tariff calculated on the basis of the norms specified in these Regulations:

Provided that the reasons for deviation from the norms specified under these Regulations shall be recorded in writing.

#### 23. Power to Relax:

The Commission may, by general or special order, for reasons to be recorded in strilling, and after giving an opportunity of hearing to the parties likely to be affected, relax any of the Regulations on its own motion or on an application made before it by an interested

For NATCO POWER PRIVATE LIMITED

CHIEF GENERAL MANAGER P & MM & IPC

#### 24. Issue of Orders and Practice Directions:

Subject to the provisions of the Act, the Andhra Pradesh Electricity Reform Act, 1998 and these Regulations, the Commission may, from time to time, issue orders and practice directions in regard to the implementation of these Regulations, the procedure to be followed and other matters, which the Commission has been empowered by these Regulations to specify or direct.

#### 25. Power to Amend:

The Commission may, at any time, vary, alter, modify or amend any provisions of these Regulations.

#### 26. Power to Remove Difficulties:

If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by general or specific order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.

#### 27. OTHERS

- (i) Evacuation Guidelines: The Evacuation Guidelines / practice directions issued by the Commission from time to time shall be applicable for all the wind power projects established since these regulations coming into force.
- (ii) Model PPAs: The model Power Purchase Agreements earlier approved by the Commission shall be applicable to all the wind power projects established since these regulations coming into force also to the extent they are in consonance with these regulations.

Dr. A. SRINIVAS, Commission Secretary (1/c).

Hyderabad, 31-07-2015.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER P & MM & IPC

# ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION 4<sup>th</sup> & 5<sup>th</sup> Floors, Singareni Bhavan, Red Hills, Hyderabad-500 004

O.P No.7 of 2012

Dated: 11-07-2012

Present

Sri A.Raghotham Rao, Chairman Sri C.R.Sekhar Reddy, Member Sri R.Ashoka Chary, Member

In the matter of

Indian Wind Energy Association (InWEA)
Having its registered office at
PHD House, 3<sup>rd</sup> Floor, Asian Games Village,
August Kranti Marg, New Delhi – 110 016.
Rep. by its Secretary.

.... Petitioner

AND

Transmission Corporation of Andhra Pradesh Ltd (APTRANSCO)
Vidyut Soudha, Khairathabad, Hyderabad. ..... Respondent

This petition coming up for hearing on several dates including on 21.05.2012, in the presence of Sri Arijit Maitra, Advocate, Sri Ajit Pandit, for the petitioner and Sri P.Shiva Rao, and Sri G.Brahmananda Rao, Advocates for the respondent and having stood over for consideration to this day, the Commission delivered the following:

#### ORDER

This petition is filed by the petitioner seeking modification of the guidelines in the order dated 30.03.2010, for evacuation of power from Wind Power Projects in Andhra Pradesh in line with Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulation 2010, in pursuance of Regulations 6 (4) and Regulations 49 of APERC (Conduct of Business) Regulations, 1999 and APERC (Conduct of Business) Amendment Regulations, 2000 and Section 94 (1) (f) of Electricity Act, 2003.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director P & MM & IPC
APSPDCL :: TIRUPATI

- In the said petition it is mentioned by the petitioner association that:
  - i) This Commission issued order dated 30.03.2010 approving guidelines for evacuation of power from wind energy projects and standard format for PPA. However, the Commission has not allowed choice to the developer to select size, type loading of the conductor at 33 kV.
  - period or limitation period for applicability thereby implying that condition mentioned in the said order continue to be applicable till modified or amended. In view of the above, the respondent is imposing the restrictive conditions for limiting wind energy evacuation upto 10 MW that 33 kV and for evacuation of capacity in excess of 10 MW at higher system voltages at 132 kV.
  - Standards for Construction of Electrical Plants and Electrical Lines)
    Regulation 2010 which has been notified on August 20, 2010. The said
    Regulation covers the type of conductors to be used for transmission
    and distribution lines. Considering the mandate given to CEA, it would
    be necessary that norms in the State of AP should also be in conformity
    with the norms issued by CEA for development the grid and
    standardization.
  - iv) In support of its claim for modification of the guidelines issued by APERC in its order dated 30.03.2010, the petitioner mentioned various grounds in its petition and also mentioned evacuation system arrangements in other States.
- 2. The said petition was returned informing the petitioner to explain as to how the petition is maintainable. On 19.08.2011 the petitioner filed written submissions, wherein it is stated that:

a) The State Commission shall discharge under Section 86 (1) the following functions, namely:-

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

"to promote ............ Generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid ......"

- b) Providing flexibility of choice of conductor enabling Wind Energy Generators to evacuate more power at 33 kV from the same line consequently resulting in optimum utilization of Electric lines as well as curtailment of extra cost for the wind generators are suitable measures for connectivity with the grid that the Commission is mandated to provide under Section 86 (1) (e) of the 2003 Act.
- c) It is technically feasible to evacuate higher capacity in terms of MW using conductors which allow higher line loading in Amp, rather than restricting it to 10 MW. For example with conductor such as ACSR Panther or AAAC Panther allows wind energy generators to easily inject 15 to 25 MW power at 33 kV.
- d) The Commission can sustain the change in policy where it would have properly balanced the legitimate expectation of the wind energy generators as against the need for a change.
- e) The Central Electricity Authority (CEA) is required to notify Regulations under Section 73 (b) read with Section 177 (2) (e) specifying the technical standards for construction of electrical plants electric lines and connectivity to the grid.
- f) Accordingly, the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010 (hereinafter referred to as "CEA Regulations 2010") came to be notified. There is no reason why CEA Regulations 2010 should not be binding. In sharp contrast, the discretion under Section 61 (a) to "be guided by" the principles and methodologies specified by the Central Commission for determination of the tariff is not present in regard to CEA Regulations 2010.
- g) As far as the petitioner is aware, to date, no change has been made by the Parliament to the CEA Regulations 2010.
- h) The CEA Regulations 2010 have binding force, as they are statutory in nature. It is delegated legislation enacted under the powers

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director P & MM & IPC

APSPDCL :: TIRUPATI

- conferred upon CEA by the primary legislation i.e., under Section 73 (b) read with Section 177 (2) (e) of the 2003 Act.
- i) The Hon'ble Supreme Court has held in its judgment dated March 15, 2010 in PTC India Ltd Vs. CERC [reported in AIR 2010 SC 1338] that a Regulation stands on a higher pedestal vis-à-vis an order (decision) in the sense that an order has to be in conformity with the regulations.
- j) The Commission's order dated 30.03.2010 is required to be aligned to the CEA Regulations, 2010.
- k) The validity of the CEA Regulations, 2010 cannot be tested in any proceedings before this Commission.
- I) This Commission is empowered in law to review its order dated 30.03.2010 in terms of Section 94 (1) (f) of the 2003 Act read with Regulation 49 if the APERC (Conduct of Business) Regulations, 1999 (hereinafter referred to as the "Conduct of Business").
- m) The CEA Regulations 2010 were notified on 20<sup>th</sup> August, 2010. Thus, the requirement to review this Commission's order dated 30.03.2010, arises much after the limitation period of 90 days specified under Regulation 49 of the Conduct of Business, in any case. However, an issue would arise as to whether this Commission would allow its said order dated 30.03.2010 to continue particularly when it is apparent on the fact of records that the said order is contrary to the CEA Regulations, 2010.
- n) There has been a change in law subsequent to the notification of the CEA Regulations, 2010 which necessitate the review of this Commission's order dated 30.03.2010.
- The primary concern of this Commission is to implement the justice of the legislation contained in the CEA Regulations, 2010.
- p) The time of 90 days specified under Regulation 49 of the Conduct of Business, to file review petition can be extended under Regulation 59 thereof.
- q) Even under Section 5 of the Limitation Act, an application may be admitted after the prescribed period if the applicant satisfies the

N. SADASIVA RAO Director P & MM & IPC

APSPDCL :: TIRUPATI

- Court that he had sufficient cause for not making the application within such period.
- r) The following Regulations sufficiently empower this Commission to admit the present petition and to review or modify its aforesaid order dated 30.03.2010 even though the limitation period for filing review may have expired.
  - 55. Saving of inherent power of the Commission.
  - (1) Nothing in these Regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for meetings the ends of justice or prevent the abuse of the process of the Commission.
  - (2) Nothing in these Regulations shall bar the Commission from adopting a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing deems it necessary or expedient.
  - (3) Nothing in these Regulations shall, expressly or impliedly, bar the Commission to deal with any matter or exercise any power under the Act for which no Regulations have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.
- s) In support of its contention raised in the petition, the petitioner relied upon a ruling reported in 2010 SCC (1338) by the Hon'ble Supreme Court of India.
- 3. Upon hearing the counsel for the petitioner on 24.08.2011, Commission decided to take the petition on to its file vide its order dated 06.01.2012.
- 4. Notice was issued to the respondents and on 21.05.2012 a 'reply' was filed on behalf of the respondent, inter-alia stating that
- a) Approval of evacuation guidelines is covered by the provision mentioned u/s 86 (1) (e) of Electricity Act, 2003. Hence, the said order shall be applicable till modified or amended. The Commission approved the limit of 10 MW duly considering the less load availability in DISCQMs.

N. SADASIVA RAO

CHIEF GENERAL MANAGER
P & MM & IPC

- b) As per the directions of Commission, a meeting was conducted on 16.05.2012 between the representatives of the petitioner as well as the respondent herein on power evacuation issues and it is jointly decided that:
  - (i) The developer shall have the discretion in choosing the conductor for connecting wind generator to the pooling substation of the developer subject to the CEIG approval.
  - (ii) The developer is allowed to inject a maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM substation.
  - (iii) The developers connecting at 33 kV level to the EHT SS, the maximum injection is limited upto 25 MW in case of single conductor 33 kV Bus and up to 40 MW in case of double conductor 33 kV Bus, subject to transformation capacity. Injection of power may be in one or more circuits depending up on availability of bays in that substation and loading per circuit not exceeding 25 MW.
  - (iv) Injection of power by wind developer from pooling substation to EHT substation at EHT level may be as per system studies.
- c) In the order dated 30.03.2010 it is approved by the Commission, that the limit of power to be transferred at specific voltage level is characterized by current carrying capacity of the conductor and voltage regulation and as such, there was requirement to specify the permissible capacity on specific conductor at specific voltage. During the meeting with the petitioner, it is agreed to allow choice of selecting the conductor upto the pooling substation to be left to the discretion of developer.
- d) The wind power projects are having low capacity utilization factor. As such , the licensees have proposed higher norms for wind power capacity flow at 33 kV level connecting to HTSS higher than the norms stipulated in the earlier orders.
- e) Commission may take appropriate decision for modification of amendments in the existing guidelines.
- f) In order to harness the available wind potential helpful in meeting the RPPO, it was jointly agreed to modify the existing guidelines with respect to conductor type and permissible capacity as mentioned at para 2 (b) supra.
- g) Commission may pass appropriate orders formulating the parameters and its values.

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC
APSPDCL :: TIRUPATI

- On 21.05.2012 Secretary General of the petitioner association filed an 5. affidavit mentioning the meeting conducted by the representatives of the respondent with those of the petitioner and requested the Commission to review and modify its order dated 30.03.2010 and (i) to allow discretion to wind energy developers and choosing the conductor for connecting wind generator to the Pooling sub-station of the developer subject to CEIG approval (ii) to allow the wind energy developers to inject the maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM sub-station (iii) to provide that the developers connecting at 33 kV level to the EHT SS, the maximum injection be limited upto 25 MW in case of single conductor, 33 kV Bus and upto 40 MW in case of double conductor, 33 kV Bus, subject to transformation capacity and that injection of power may be in one or more circuits depending upon availability of bays in that sub-station and loading per circuit not exceeding 25 MW (iv) to provide that injection of power by wind developer from pooling sub-station to EHT sub-station at EHT level may be as per system studies.
- Heard the counsel for the parties concerned.
- 7. The petitioner filed the above said petition for placing on record minutes of meeting held on 16<sup>th</sup> May, 2012 as follows:
- a) The Commission during the hearing held on 23<sup>rd</sup> April, 2012 and further during the hearing held on 14<sup>th</sup> May, 2012, graciously indicated to the petitioner and the respondents to hold meeting and discuss the impending modifications to this Commission's order dated 30<sup>th</sup> March, 2010 for allowing Wind Energy Generators to exercise their choice of installing conductors inline with the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010.
- b) Based on the above, Counsel appearing for Andhra Pradesh Distribution Company Ltd., during the hearing on 14<sup>th</sup> May, 2012 undertook to withdraw the reply dated 3<sup>rd</sup> May, 2012 filed by the said respondent in order to give effect to and comply with the aforesaid oral directions of this Commission.

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC
APSPDGL :: TIRUPATI

- c) Pursuant to the above, a meeting was organized on 16<sup>th</sup> May, 2012 by APTRANSCO in a Technical Committee comprising of Director (Grid Operation / APTRANSCO, Director (Transmission) / APTRANSCO, Director (Projects) / APTRANSCO, JMD (Distribution) / APTRANSCO, member from APPCC-JMD (HRD, Comml, IPC & IT) / APTRANSCO and representatives for the petitioner Indian Wind Energy Association. The following were agreed in the aforesaid meeting:
  - i) The developer shall have the discretion in choosing the conductor for connecting wind generator to the pooling substation of the developer subject to the CEIG approval.
  - ii) The developer is allowed to inject a maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM substation.
  - iii) The developers connecting at 33 kV level to the EHT SS, the maximum injection is limited upto 25 MW in case of single conductor 33 kV Bus and upto 40 MW in case of double conductor 33 kV Bus, subject to transformation capacity. Injection of power may be in one or more circuits depending upon availability of bays in that substation and loading per circuit not exceeding 25 MW.
  - iv) Injection of power by wind developer from pooling substation to EHT substation at EHT level may be as per system studies.

A copy of the aforesaid Minutes of Meeting duly signed by the all the aforesaid constituents of the Technical Committee is filed.

- 8. The petitioner has prayed that the Commission may
- a) be pleased to review and modify its order dated 20<sup>th</sup> March, 2010 to allow discretion to the Wind Energy Developers in choosing the conductor for connecting Wind Generator to the pooling substation of the developer subject CEIG approval.
- b) be pleased to review and modify its order dated 30<sup>th</sup> March, 2010 to allow the Wind Energy Developers to inject the maximum of 10 MW from Pooling Sub-Station of the Wind Generator to the existing 33 / 11 kV DISCOM Sub-Station.

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

- c) be pleased to review and modify its order dated 30<sup>th</sup> March, 2010 to provide that the developers connecting at 33 kV level to the EHT SS, the maximum injection be limited upto 25 MW in case of single conductor, 33 kV Bus and upto 40 MW in case of double conductor, 33 kV Bus, subject to transformation capacity and that injection of power may be in one or more circuits depending upon availability of bays in that Sub-station and loading per circuit not exceeding 25 MW;
- d) be pleased to review and modify its order dated 30<sup>th</sup> March, 2010, to provide that injection of power by Wind Developer from pooling Sub-station to EHT Sub-station at EHT level may be as per system studies;
- e) be pleased to pass any other order as may be just and necessary in the facts and circumstances of the present case.
- 9. Now the point for consideration is, whether the petitioner is entitled to seek a review of the order of the Commission dated 20.03.2010? If so in what manner?
- 10. The respondent has submitted a Memo withdrawing the reply filed by the respondent on 16.05.2012 by stating that they will file the same after negotiations by modifying the same, if necessary.
- 11. The respondent has not filed any reply of modifications but the petitioner has filed an affidavit narrating the negotiations and conclusions arrived at by the Committee as per the directions of the Commission. The minutes of meeting held on 16.05.2012 have been accepted and signed by both the sides viz., the representatives of APTRANSCO as well as the InWEA.
- 12. In view of the above circumstances, the Commission hereby reviews the order dt.30.03.2010 and in partial modification of the guidelines contained therein, hereby orders that:
  - i) The developer shall have the discretion in choosing the conductor for connecting wind generator to the pooling substation of the developer subject to the CEIG approval.

N. SADASIVA RAO

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

- ii) The developer is allowed to inject a maximum of 10 MW from pooling substation of the wind generator to the existing 33 / 11 kV DISCOM substation.
- iii) The developers connecting at 33 kV level to the EHT SS, the maximum injection is limited upto 25 MW in case of single conductor 33 kV Bus and upto 40 MW in case of double conductor 33 kV Bus, subject to transformation capacity. Injection of power may be in one or more circuits depending upon availability of bays in that substation and loading per circuit not exceeding 25 MW.
- iv) Injection of power by wind developer from pooling substation to EHT substation at EHT level may be as per system studies.
- 13. Hence, this petition is ordered accordingly.

The order is signed on this 11<sup>th</sup> day of July, 2012.

Sd/-(R.ASHOKA CHARY) MEMBER Sd/-(C.R.SEKHAR REDDY) MEMBER Sd/-(A.RAGHOTHAM RAO) CHAIRMAN

FOR NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

## ANDURA PRADESH BLECTRICITY REGULATORY COMMISSION

("Permitter) Commission for the Silver of Areloga Process and Telegraphic Edition (Areloga Areloga Edition Edi

from
Commencies Secretary,
APERC, 4% is 52 Floors,
fill 4 CeO, Singareni Bhavan,
Red Hills, Lakobicke pull

To The Chairman & Managing Director, APCIOCL, 6 1157, 5% floor, Coperate Office Most Corepound Hyderapad 500 104

## Lt. No.APERC/Secv/Dirticogn/DDfTransf/E-635, 14/2014-1. Dc 04/05/0014

Sir.

Sub: APERC - Guidelines on power evacuation from Wirel.
Power Projects - Christians - Issued

Ref. 1) Le No COM(Comm) & RAC(/SE/JEC/F:D No 79/74 D) 11:54-2014

APERC Order dated 30.03.2010 in O.F. Ne 40 of 2010.

3) APERC Order dated 11.07/2012 in 0.P. Nd.7 of 2012

In the letter 1st edge, APCPDCL has requested the Commission to the processor clarifications with regard to quantum of power M. Secondard on each size of the conductor (viz., 55) Squin, 160 Squin, 150 Squin, 160 Squin, 1

After careful examination of the inque, in the partial modification of guidelines order tasued in G.P. Mal? of 2012 the Commission grants dustration to the developer for choosing the conductor for connecting wind generator to the pooling substation of the developer, subject to the CEIG approval. No further elasifications on conductor size in this connection are required.

Further, it is clanified that the term 'per creat' mentioned at paragraph 12(a) of the order dated 11.07.2012 in 0.7. So 7 of 2012 can be interpreted as 'per feeder'

This is essued with the concurrence of the Commission.

Yours leading of

Commission Secretary

Copy to

The Changen & Managing Director, AFFranco, Vide at Stucke, Hydera Dat 42.

PS to the Chairman / APERC

IN IN HOLINAGO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

## ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION HYDERABAD

Order Dated 26-03-2016 IN O.P.No.13 of 2016 (SUO - MOTU)

Present: Sri Justice G. Bhavani Prasad, Chairman Dr. P. Raghu, Member Sri P. Rama Mohan, Member

In the matter of notifying the generic preferential tariff applicable from 01-04-2016 to 31-03-2017 in respect of Wind Power Projects in the State of Andhra Pradesh pursuant to Regulation 6 of Regulation 1 of 2015

The Commission has issued the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Wind Power Projects) Regulation, 2015 and notified on 31-07-2015.

As per the Regulation 6 of Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Wind Power Projects) Regulation, 2015, the Commission shall notify the generic preferential tariff on *suo-motu* basis at the beginning of the each year of the tariff period for the wind power projects for which norms have been specified under the Regulation.

Accordingly, the parameters taken into consideration as per the Regulation 1 of 2015 for determination of tariff are as hereunder:

Sl.No.	Parameter	Value	
1.	Tariff Period	25 years	
2.	Useful Life	25 years	
3.	Capital Cost	Rs.600.9 Lakhs/MW (including evacuation cost)	
4.	O & M Expenses	Rs.9.06 Lakhs	
5.	O&M Expenses' Escalation	5.72 % p.a.	
6.	Depreciation for the First 10 years	7% p.a.	
7.	Depreciation for the remaining useful life of the plant	1.33% p.a.	
8.	Capacity Utilization Factor	23.5 %	
9.	Return on Equity	16%	
10.	Interest Cost on Debt	12.76%	
11.	Tenure of Loan	10 years	
12.	Interest on Working Capital	13.26%	
13.	Debt Equity Ratio	70:30	
14.	Discount Rate	10.64	

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER

P & MM & IPC

Based on the above parameters and considering the useful life of the Wind power Plant as 25 years, the levelised generic preferential tariff works out to Rs.4.84 per unit without considering the Accelerated Depreciation and Rs.4.25 per unit with Accelerated Depreciation as tabulated below.

Tariff without	Tariff with
AD Benefit	AD Benefit
4.84	4.25

The above tariff shall be applicable for all the new Wind Power Projects entering into Power Purchase Agreements (PPA's) with AP Discoms on or after 01-04-2016.

Sd/-(P. RAMA MOHAN) MEMBER (on leave) (Dr. P. RAGHU) MEMBER Sd/-(JUSTICE G. BHAVANI PRASAD) CHAIRMAN

For NATCO POWER PRIVATE LIMITED

N. SADASIVA RAO Director CHIEF GENERAL MANAGER
P & MM & IPC