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D. BHASKARAIAH LICENSED STAMP VENDOR SVL No: 16-04-30/2015 H.No: 8-3-324/204 C, Yellareddyguda Hyderabad, South Dist. Phone No. 9848016378.

### POWER PURCHASE AGREEMENT BETWEEN

SOUTHERN POWER DISTRIBUTION COMPANY OF A.P. LIMITED AND

M/S. HETERO WIND POWER (PENNAR) PRIVATE LIMITED

This Power Purchase Agreement (the "Agreement") entered into this <u>\*</u> of March 2016 between Southern Power Distribution Company of AP Limited (DISCOM), incorporated by the Government of Andhra Pradesh in accordance gwith 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 Hetero Wind Power (Pennar) Private Limited, a company incorporated under companies Act, 1956, having registered office at 7-2-A2, 3rd Floor, North East Wing, Block B, Hetero Corporate,

FOR HETERO WIND POWER (PENNAR) PVT. LFD.

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CHIEF GENERAL MANAGER P & MM & IPC

Industrial Estate Sanath Nagar, Hyderabad - 500 018, Telangana, 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 New and Renewable Energy Project i.e., the 24.0 MW capacity Wind power project at Thirumalayapalli (V) Kadapa District, Andhra Pradesh (hereafter called the Project,) with a proposal of 0.12 MW for Auxiliary Consumption and 23.88 MW for export to grid for Sale to DISCOM as detailed in Schedule 1 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/Hetero/ Vajrakarur/2011 06.10.2011 and NREDCAP/WE/Hetero/ 2015, dt.24.11.2015 and NREDCAP/WE/Hetero/ 2016, dt.8.3.2016 and the Wind Power Producer has entered into an Agreement with NREDCAP on 26.11.2015 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 applicable Indian laws, rules, regulations and orders having the force of law;
- 4. Whereas, the proposed Project is being setup under cluster of Wind power projects proposed at Tirumalayapalli in Kadapa District and will be connected to Extra High Voltage (EHV) Pooling Substation to be built for power evacuation from Wind power projects. The Project will share a common metering at line isolator on outgoing feeder on High Voltage (HV) side of the Pooling Substation along with other Wind power projects. The Project will also have a separate 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 HETERO WIND POWER (PENNAR) PYT. LYD.

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### 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.

Explanation 3: The Delivered Energy will be equal to energy recorded by the individual meter at Project's switchyard minus apportioned line losses from

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Project's switchyard to interconnection point 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 Pooling Substation and shall be:

$$(X1 + X2 + X3 + X4 + \____) - Y$$
 $Z =$ 
 $(X1 + X2 + X3 + X4 + \___)$ 
 $X =$ 

Where

Y is the reading of the common energy meter installed at interconnection point. 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, switchgear, substation facilities, transmission lines and related infrastructure, to be installed at the

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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 Substation.

- 1.10 **Interconnection 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) ie., wind turbine generators are connected.
- 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 24 MW capacity Wind power project at Tirumalayapalli in Y.S.R. Kadapa District, Andhra Pradesh with a proposal of 0.12 MW for Auxiliary Consumption and 23.88 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 3 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 commonly used in prudent electric utility engineering and operations to design, 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.

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- 1.15 **Pooling or Receiving Substation:** means 33/132 KV Substation constructed, owned and maintained by the Wind Power Producer at Tirumalayapalli in Y.S.R Kadapa District for the sole purpose of evacuating energy generated by the Project to the Grid System and for facilitating interconnection between the transmission lines emanating from the Project and the Grid System. As indicated in the Preamble, the Pooling Substation will be common for all Wind power projects connected to the Pooling Substation.
- 1.16 **SLDC:** means the State Load Dispatch Centre as notified by the State Government under the provisions of the Electricity Act 2003.
- 1.17 **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.
- 1.18 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.

- 1.19 **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).
- 1.20 **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:

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### TABLE - A

### At 33 KV level:

Project interfacing		Specified type of	Dyan an a year	
From	То	AAAC Conductor (size)	Proposed Wind power capacity o each 33 KV line	
Wind	Existing 33/11	55 sqmm	8 MW	
project	KV DISCOM SS	100 sqmm	10 MW*	
Y 7 7 7		150 sqmm		
Wind	EHT Pooling SS	55 sqmm	8 MW	
project	or existing EHT	100 sqmm	12 MW	
	APTRANSCO SS	150 sqmm	17 MW**	

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

### TABLE - B

### At EHT level:

Project interfacing		EHT Level	Proposed Wind	
From	То		Proposed Wind power capacity	
Pooling SS	Existing APTRANSCO EHT SS	132 KV	(i) Up to 50 MW on SC Line (ii) Above 50 MW to 100 MW on DC Line	
Pooling SS	Existing APTRANSCO EHT SS	<sub>z</sub> 220 KV	Above 100 MW	

This Project will generate electrical energy at 620 Volts, which will be stepped up to 33 KV at Project's switchyard. The electrical energy will be further stepped up from 33 KV to 132 KV at Pooling Substation and delivered to the grid. And to be connected to the existing 132/33 KV Kondapuram SS and later to be connected to proposed 220/132 KV APTRANSCO, Tirumalayapalli, Kadapa District)

1.21 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.

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 $<sup>^{**}</sup>$  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

### 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.4.83 per unit without considering Accelerated Depreciation for a period of 25 Years from the Commercial Operation Date (COD) as per APERC orders No. 03 of 2015 dt.01.08.2015.
- 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 theneffective 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.

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### 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 and / or DISCOM to supply the requisite reactive power to the Grid System.

APTRANSCO and /or DISCOM shall install the capacitors of required capacity, at the substation of the APTRANSCO and/or DISCOM 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.

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### 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 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.

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- 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.
- 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

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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.

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# 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 For payment of bills of the generating company through letter of credit, a rebate of 2 % shall be allowed.

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.

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.

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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

: M/s.Hetero Wind Power (Pennar) Private Limited

7-2-A2, 3rd Floor, North East Wing,

Block B, Hetero Corporate, Industrial Estate Sanath Nagar,

Hyderabad - 500 018, Telangana, India

Telephone

: +91-40-23704923 /24/25/26

Fax

: +91-40-23714250/23704926

Email

: info@heterowindpower.com

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### 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.
- (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.

For HETERO WIND POWER (PENNAR) PYT. LFD.

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- (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 HETERO WIND POWER (PENNAR) PVT. LFD.

Sem (Sem)
Authorised Signatory

CHIEF GENERAL MANAGER
P & MM & IPC

### 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 HETERO WIND POWER (PENNAR) PYT. L3D.

Authorised Signatory

Sou Kons

CHIEF GENERAL MANAGER

#### 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

: M/s.Hetero Wind Power (Pennar) Private Limited

7-2-A2, 3rd Floor, North East Wing,

Block B, Hetero Corporate,

Industrial Estate Sanath Nagar,

Hyderabad – 500 018, Telangana, India

Telephone

: +91-40-23704923 /24/25/26

Fax

: +91-40-23714250/23704926

Email

: info@heterowindpower.com

### If to the DISCOM:

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 HETERO WIND POWER (PENNAR) PVT. LFD.

Authorised Signatory

CHIEF GENERAL MANAGER P & MM & IPC

APSPDCL:: TIRUPATI

### 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 HETERO WIND POWER (PENNAR) PYT. LFD.

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Authorised Signatory

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

### 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 HETERO WIND POWER (PENNAR) PVT. LFD.

Anthorised Signatory

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

### 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 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.

For HETERO WIND POWER (PENNAR) PYT, LJD.

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Authorised Signatory

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

- 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 HETERO WIND POWER (PEHNAR) PYT. LFD.

Authorised Signatory

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

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.

# For and behalf of SOUTHERN POWER DISTRIBUTION COMPANY OF A.P.LIMITED

WITNESS

1. Ho

By:

CHIEF GENERAL MANAGER

P & MM & IPC APSPDCL :: TIRUPATI

2.

Its:

For and behalf of

M/S. Hetero Wind Power (Pennar) Private Limited

WITNESS

1. Add

By:

FOR HETERO WIND POWER (PENNAR) PVT. LFD.

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2. ( Less)

Its:

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### 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* In MW	Power export to the Grid In MW
M/s. Hetero Wind	Tirumalayap	alli in Kadapa	16 ( 1.5	24	
Power (Pennar) Private Limited	District	· · · · · · · · · · · · · · · · · · ·	MW Each)	24	23.88
	Location No.	Survey No.			
•	HWPPPL-8	809/1A			
	HWPPPL-9	809/2A			
	HWPPPL-10	802/2			
	HWPPPL-11	936			
	HWPPPL-12	936			
	HWPPPL-13	936			
	HWPPPL-14	936			
	HWPPPL-15	936			
	HWPPPL-16	936			
	HWPPPL-17	936			
	HWPPPL-18	936			
	HWPPPL-19	936			
	HWPPPL-20	936			
!	HWPPPL-21	936			
	HWPPPL-22	936			
ý	HWPPPL-23	280, 281			<i>T</i>

<sup>\*</sup> Out of 24.0 MW, 0.12 MW is for Auxiliary Consumption and 23.88 MW is for export to grid for sale to DISCOM.

### 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 Order No. 3 of 2015 dated 01.08.2015.

For HETERO WIND POWER (PENNAR) PVT. LFD.

Authorised Signatory

CHIEF GENERAL MANAGER P & MM & IPC

### SCHEDULE - TI

ఆంధ్రప్రదేశ్ మాతన మరియు పునరుద్ధరికరణీయ ఇంధన అభివృద్ధి సంస్థ 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 Tele: Off: 040-23202391 / 23203638 /23203376 Fax: 040-23201666

E-mail: info@nedcap.gov.in, nedcap@ap.nic.in Website: www.nedcap.gov.in

Ref: NREDCAP/WE/Hetero/Vajrakarur/2011

Dt. 06.10,2011

### **PROCEEDINGS**

Sub: Wind power Project in private sector - Communication of sanction for 202.50 MW capacity wind farm project at Vajrakarur, Anantapur district - Reg.

Ref:

- 1. Application for allotment of wind farm dt.18.11.2010
- 2. G.O.Ms.No.48 dt.11-04-2008 of Energy Dept. Govt. of A.P.
- 3. G.O.Ms.No.99 dated 09.09.2008 of Energy (RES) Dept., Govt. of A.P.
- 4. Govt. Ir.no.9039/RES-1/2010 Dt.5.5.2011 of Energy (RES) Dept.
- 5. Nredcap Prov. Allotment Lr.No.NREDCAP/WE/Hetero/Vajrakarur/ 2011 Dt.6.5.2011
- 6. Lr.no. nil dt.12.09.2011 of M/s. Hetero Drugs Ltd
- 7. Lr.no.nil Dt.20.6.2011 of M/s. Hetero Drugs Ltd
- 8. Lr. No. nil dated 12.09.2011 of M/S. Hetro Windpower Limited.

\* \* \*

In the reference 1st cited, M/s.Hetero Drugs Ltd have applied to NREDCAP for allotment of 202.50 MW capacity wind power project at Vajrakarur, Anantapur District, for generation of electric power on commercial basis.

In the reference 4<sup>th</sup> cited, the Govt. has accorded approval for sanction of 202.50 MW capacity wind power project to M/s. Hetero Drugs Ltd.

In the reference 5<sup>th</sup> cited, Provisional Allotment Letter was issued stipulating certain conditions for issue of sanction letter and execution of the Agreement: M/s. Hetero Drugs in its letter 6<sup>th</sup>, and 7<sup>th</sup> cited has represented that they along with their sister company M/s. Hetero Labs Limited which has also been allotted 54 MW capacity wind power project at Tirumalayapalli by NREDCAP have floated an exclusive company by name M/s. Hetero Windpower Ltd otherwise called Special Purpose Vehicle (SPV) for execution of the Projects wherein each of them will hold a minimum of 26% in the paid up equity capital of the SPV, and the said company and the SPV through its letter 8<sup>th</sup> cited having fulfilled the conditions of the abovementioned provisional allotment, requested for execution of the Agreement in the name of the SPV duly transferring the allotment in the name of the SPV and furnished appropriate resolutions of their respective Boards therefor.

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For HETERO WIND POWER (PENNAK) TYT. ISDL Ife - Conserve it"

Authorised Signatory

CHIEF GENERAL MANAGER
P & MM & IPC

Based on approval of the Government, and having considered the request of M/s. Hetero Drugs Ltd, and the SPV, NREDCAP hereby transfers the allotment of 202.50 MW capacity wind power project in the name of M/s. Hetero Windpower Ltcl at Vajrakarur, Anantapur District for generation of power on commercial basis, subject to the condition that M/S. Hetro Drugs Limited shall hold a minimum of 26% in the subscribed and paid up equity capital of the SPV

Accordingly, the allotment is accorded subject to the following conditions.

- 1. The allotment of the land and alienation 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 decided by NREDCAP.
- 3. 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.48 dated 11.04.2008 and G.O.Ms.No.99 dated 09.09.2008 of Energy (RES) department.
- 4. 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
- 5. 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.
- 7. The company shall install the Wind Electric Generators under the project, which are having the approval of Centre for Wind Energy Technology (C-WET)
- 8. No second hand or used wind turbines, imported from abroad or procured locally shall be installed.
- 9. 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 shall ensure that the WEGs which guarantees a minimum generation of 20% CUF shall only be installed under the project or incase the WEGs are not able to produce the guarantee generation the company shall remove the WEGs at their cost.

FOR HETERO WIND POWER (PENNAR) PYT. LED.

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Authorised Signatory

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- 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 with DISCOMs in respect of Wind Power capacities set up in Government and Forest areas as per the policy of the Govt. In this 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
- 14. The company shall pay Rs.1.50 Lakhs 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.
- 15. 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.
- 16. 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 closer. 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.
- 17. 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.
- 18. 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.

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For HETERO WIND POWER (PENNAR) PYT. LYD.

Authorised Signatory

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- 19. 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.
- 20. 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 Hetero Windpower Ltd H. No. 7-2-A2, Hetero Corporate, I.E, Sanath nagar, Hyderabad – 500 018

Copy to M/s. Hetero Drugs Ltd, Hyderabad for information.

Copy to Chairman and Managing Director, APCPDCL, Mint Compound, Hyderabad. Copy to the Chief Engineer, IPC, AP Power Coordination Committee, AP TRANSCO, Hyderabad.

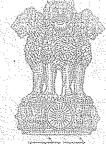
Copy to the District Collector, Anantapur Dist.

Copy to the Executive Engineer (RE), NREDCAP, Anantapur Dist

// Forwarded :: By order//

Dy.General Manager (T)

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



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No 7968 bas 26/11

### AGREEMENT

THIS AGREEMENT is entered into on this of November, 2015 at Hyderabad, by and among

(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 Um Beneful of y FIRST PART,

(2) M/s Hetero Wind Power (Pennar), Ltd, a company incorporated under the Companies Act, 1956, having its registered office at: Hetero Corporate, 7-2-A2, 3rd floor, North East Wing, Block B, Hetero Corporate, Industrial Estates, Sanath Nagar, Hyderabad-500018, represented by its Authorized Signatory, Sri C.V. Ramakrishna, hereinafter referred to as the 'Developer'/ 'Customer' of the SECOND PART.

For HETERO WIND POWER (PENNAR) PYT. LED.

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(3) M/s Hetero Wind Power Ltd, a company incorporated under the Companies Act, 1956, having its registered office at: # 8-3-166/7/1, 1<sup>st</sup> floor, Hetero House, Erragadda, Hyderabad-500018, represented by its Authorized Signatory, Sri M. Rajasekhar Reddy 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,

For HETERO WIND POWER

Δ. 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 perathe 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 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.

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For New & (value and de Engley for company),

Corporation of Andhro Predach Lfd.

FOR HETERO WIND POWER (PENNAR) PVT. LTD.

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**Authorised Signatory** 

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

Authorised Signatory

B. The Third Party was earlier sanctioned 202.50 MW wind farm projects to be set up at Vajrakarur, Ananthapur 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 Sanctione d (In MW)
1	M/s Hetero Wind Power Ltd	Sanction Lr.No. NREDCAP/ WE/Vajrakarur/2011, Dt.06.10.2011, Agreement entered on 19.09.2011	202.50
, 200		3° .	W.
		Total	202.50

C. The Third Party through their Letter No. Nil, dated 03.11.2015 informed that they intended to execute 49.50 MW through M/s Hetero Wind Power (Pennar) 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 being its customer from the existing capacity sanctioned.

SI No	Customer Name	Capacit y in MW	Capacity transferred from	Capacity transferred (In MW)
1	M/s Hetero Wind Power (Pennar) Pvt. Ltd	49.50	M/s Hetero Wind Power Ltd	49.50
***		Total		49,50

D. After due consideration of the proposals under (B) above, the First Party, through its Letter/ Proc No. NREDCAP/WE/Hetero/2015, Dt.24.11.2015 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.

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F**or** New & Resewable Earlie Constitution

Conporation of Andhra Lagranda Ltd.

For HETERO WINDPOWER LTD.

FOR NETERO WIND POWER (PENHAR) PVI. LTD.

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For HETERO WIND POWER (PENNAR) PYT. LFD.

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**Authorised Signatory** 

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Vice CHEIMMM & IRCKG TO APSPDCL :: TIRUPATI

Authorised Signatory

## 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 or in the Principal Agreement appended hereto.

### 1.2 Public Interest

The sanction, 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 Customer shall ensure that the Project is executed within the Project Implementation Period.

# ARTICLE 2 GRANT OF ALLOTMENT

### 2.1 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 49.50 MW capacity wind power from wind power project earlier sanctioned to the Developer M/s Hetero Wind Power Ltd, to and in the name of the developer / Customer for setting up of the Project as per the following table for generation of 49.50 MW capacity of wind power for captive use/sale of power to AP DISCOM/Sale of power to third party.

SI.N o.	Customer Name	Capacity (MW)	Location details
1	M/s Hetero Wind Power (Pennar) Pvt. Ltd	49.50	Tirumalayapalli, YSR Kadapa district

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FOR HETEROWIND POWER (PENNAR) PYTODETERO WIND POWER (PENNAR) PYT. LID.

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Authorised Signatory

For New & Renewable Emergy of vicinguistic Conforality of Andrira Phaseuph Ltd.

CHIEF GENERAL MANAGER

### 2.2 Financing

The Customer 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 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 HETERO WIND POWER (PENHAR) PYT. LTD.

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Authorised Signatory

For New & Renovable Energy (2005) 526 Corporation of Andhra Pradoch Ltd.

VIEW PREMERAL MANAGER

APSPDCL :: TIRUPAT

FOR HETERO WIND POWER (PENNAR) PYT LED

Authorised Signatory

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### 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

1. 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
  - 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.
  - 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...

FOR HETERO WIND POWER (PENNAR) PVT. LTD.

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For New & Renewalso Energy Osvetopia. . . Corporation of Andhra Pradesh Lid

For HETERO WIND POWER (BENNAR) BYTHED.

A SHARW WINDPOWER ETD.

**Authorised Signatory** 

CHIEF GENERAL MANAGER
P & MM & IPC



### 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 and on behalf of the NREDCAP

Signed, Sealed and Delivered

For and on behalf of the NREDCAP

Signed, Sealed and Delivered

FOR HETERO WIND POWER (PENNAR) PVT. LTD.

Authorised Signatory

Signature of Authorised Person

( and Com

(Name)

(Designation)

(Seal)

Signature of Authorised Person

Corporation of Andhra Pradesh Ltd.

(Name)

(Designation)

(Seal)

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

TO THE FROM WIND OWER LTD

Signature of Authorised Rerson for

(Name)

(Designation)

(Seal)

Witnesses

In the presence of

1) Signature

Name Address G. 5, PPR HAPPY HOTE'S, NIZAMPET, R-R (DISTRICT).

2) Signature

Name

Address

West of

P.V. Ramenh P.D. NREDCAR, Hyd

For HETERO WIND POWER (PENNAR) PYT, LFD.

Authorised Signatory

CHIEF GENERAL MANAGER
P & MM & IPC

# ఆంధ్రప్రదేశే మాతన మలయు వునరుద్ధరణీయ ఆంధన వనరుల అభివృద్ధి సంస్థ పి. Fiew & 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

Dt: 04-09-2015

Ref: NREDCAP/WE/HETERO/2015/

To M/s. Hetero Wind Power Ltd 7-2-A2, Hetero Corporate 3<sup>rd</sup> Floor, Industrial Estate Sanath Nagar HYDERABAD 500 018

Sir,

Sub: Mutual transfer of 49.50 MW wind power project from Vajrakarur to

Tirumalayapalli – Reg

Ref: 1. This office Lr No. NREDCAP/WE/Hetero/2015, dt 24.07.2015

2. Your Lr dt 27.08.2015

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With reference to the above, we are to inform that NREDCAP has already communicated its no objection for the proposal of M/s. Hetero Wind Power Ltd and M/s Axis Wind Farms (Tirumalayapalli) Pvt Ltd., for mutual transfer of 49.50 MW capacity wind farm capacities from Vajrakarur to Tirumalayapalli in respect of M/s. Hetero Wind Power Ltd., and from Tirumalayapalli to Vajrakarur in respect of M/s. Axis Wind Farms (Tirumalayapalli) Pvt. Ltd., subject to payment of applicable transfer fee.

Based on the representation of the wind farm developers, a proposal was sent to Government to consider for waival of transfer fee in respect of certain cases like non-availability of power evacuation, non-availability of potential at allotted sites, disputes in respect of areas due to over lapping etc. Based on the decision of the Government, the transfer fee is to be payable.

Based on the undertaking given by you to abide by the decision taken by the competent authority regarding payment of transfer fee, NREDCAP is hereby communicating in principle clearance for transfer of 49.50 MW capacity from Vajrakarur to Tirumalayapalli. If the Government not agrees to the proposal for waival of transfer fee, the same shall be payable by you within 15 days from the date of intimation.

Thanking you,

Yours faithfully

VC & MANAGING DIRECTOR

Copy to: M/s. Axis Wind Farms (Tirumalayapalli) Pvt. Ltd.,

For HETERO WIND POWER (PENNAR) PVT. LFD.

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"Energy is Life - Conserve it"

Authorised Signatory

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(A State Government Company)

(Formerly Non-Conventional Energy Development Corporation of Andbra 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



NREDCAP/WE/HETERO/2016

Dt. 08.03.2016

To The COM (IPC & P&MM), APSPDCL, Srinivasapuram, Tirupati

Sir,

Sub: Setting up of 40.5 MW Wind Power Project at Tirumalayapalli by Hetero Wind Power (Pennar) Pvt Ltd – No objection for entering 3 PPA's with DISCOM – Reg

Ref: Letter dated 05.03.2016 of M/s Hetero Wind Power (Pennar) Pvt Ltd.

In the reference cited M/s Hetero Wind Power (Pennar) Pvt Ltd has requested to issue consent letter for entering into 3 PPA's with AP SPDCL for 24 MW, 10.5 MW and 6 MW to complete the 40.5 MW Wind Power Project. Hence, NREDCAP has no objection for entering into 3 PPA's subject to the terms and conditions of Power Evacuation scheme approved by the APTRANSCO.

Thanking You,

Yours faithfully

Sd/-

VC & MANAGING DIRECTOR

Copy to M/s Hetero Wind Power (Pennar) Pvt Ltd

//F.B.O.//

Project Director (WE)

For HETERO WIND POWER (PENNAR) PVT. LJD.

Authorised Signatory

CHIEF GENERAL MANAGER

P & MM & IPC APSPDCL :: TIRUPATI

Annexure-1

### Guidelines on Power Evacuation from Wind Power Projects in Andhra Pradesh

- The Wind power projects are mostly developed as cluster. The power 1. evacuation scheme for such cluster projects consists of the following:
  - Laying of 33 KV feeders for evacuation of power from all Wind (a) projects in a site.
  - Construction of Extra High Tension Substation (EHT SS) (b) (Receiving / Pooling SS) for grouping the total Wind power and step up to higher Voltage level.
  - EHT Line for interfacing Pooling SS to existing nearest (c) APTRANSCO network.
- In case of Wind power projects which may come up as independent 2. projects at a particular location, they will normally be interfaced to nearest grid SS at available Voltage level.
- The Power Evacuation from prospective Wind power projects will be 3. governed by the guidelines mentioned below:
  - Voltage level of evacuation: (i)

### 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 HETERO WIND POWER (PENNAR) PVT. LFD.

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CHIEF GENERAL MANAGER P & MM & IPC

SI.	Project	interfacing	Type of	Current	Calculated	Proposed Wind
No.	From	То	AAAC Conductor (size)	carrying capacity at 45 <sup>0</sup> 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)	(β)	(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
	project	33/11 KV	100 sqmm	254 Amps	13.08 MW	10 MW*
		DISCOM SS	150 sqmm	370 Amps	19.05 MW	
2	Wind	EHT	55 sqmm	173 Amps	8.91 MW	8 MW
	project	Pooling SS	100 sqmm	254 Amps	13.08 MW	12 MW
		or existing EHT APTRANSCO SS	150 sqmm	370 Amps ad availability i	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 HETERO WIND POWER (PENNAR) PYT. LFD.

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Page 2 of 8 **Authorised Signatory** 

CHIEF GENERAL MANAGER P&MM&IPC

(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 =  $X_1$  - ( $X_1 \times Z$ %)

For HETERO WIND POWER (PENNAR) PYT. LYD.

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Authorised Signatory Page 3 of 8

CHIEF GENERAL MANAGER P & MM & IPC

Where

X<sub>i</sub> 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:

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

Where

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.

### (iii) Cost of power evacuation:

# (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.

For HETERO WIND POWER (PENNAR) PVT. LFD.

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Page 4 of 8

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### (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) <u>Power evacuation scheme finalization & sanctioning of estimate:</u>

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 HETERO WIND POWER (PENNAR) PVT. LYD.

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Power Producers. Alternatively, the Claster 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:

(i) 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 HETERO WIND POWER (PENNAR) PVT. LFD.

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Authorised Signatory Page 6 of 8

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 7 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 HETERO WIND POWER (PENNAR) PYT. LFD.

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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 HETERO WIND POWER (PENNAR) PVT. LFD: \*

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Authorised Signatory



ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION  $4^{th}~\&~5^{th}$  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 HETERO WIND POWER (PENNAR) PYT. LFD.

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CHIEF GENERAL MANAGER

1. 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.

ii) The said order of the Commission did not specify any control

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.

iii) Recently CEA issued Central Electricity Authority (Technical

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 HETERO WIND POWER (PENNAR) PYT. LPD.

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CHIEF GENERAL MANAGER

P & MM & IPC

"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 HETERO WIND POWER (PENNAR) PYT. LFD.

**Authorised Signatory** 

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- 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.
- 1) 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.
- o) 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

FOR HETERO WIND POWER (PENNAR) PYT. LFD.

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Authorised Signatory

CHIEF GENERAL MANAGER
P & MM & IPC

- 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 DISCOMs.

FOR HETERO WIND POWER (PENNAR) PYT. LED.

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CHIEF GENERAL MANAGER
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- 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 normative parameters and its values.

For HETERO WIND POWER (PENNAR) PYT. LFD.

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Authorised Signatory

- On 21.05.2012 Secretary General of the petitioner association filed an 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.
- 6. Heard the counsel for the parties concerned.
- The petitioner filed the above said petition for placing on record minutes 7 of meeting held on 16<sup>th</sup> May, 2012 as follows:
- The Commission during the hearing held on 23rd April, 2012 and further a) during the hearing held on 14th 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 30th 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.
- Based on the above, Counsel appearing for Andhra Pradesh Distribution Company Ltd., during the hearing on 14th 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 HETERO WIND POWER (PENNAR) PYT. LFD.

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- 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.

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For HETERO WIND POWER (PENNAR) PYT. LFD.

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CHIEF GENERAL MANAGER P & MM & IPC

- 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.

For HETERO WIND POWER (PENNAR) PVT. LFD.

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- 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.
- 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.
- 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** 

(C.R.SEKHAR REDDY) **MEMBER** 

Sd/-(Ã.RAGHOTHAM RAŌ) **CHAIRMAN** 

For HETERO WIND POWER (PENNAR) PYT, LFD.

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# AUDITRA PRADESH ELECTRICITY REGULTORY COMMISSION

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Hydrodod 500 004

The Chairman & Managing Director, APCPDCL, 6-1-50, 54- floor,

Corporate Office. Mint Compound,

Hyderabad 500 004.

Lt. No.APERC/Secy/Dir(Engg)/DD(Trans)/E:625,14/2014-1 Dt.04.06.2014

Sur

Sub: APERC - Guidelines on power evacuation from Wind Power Projects - Clarifications - Issued.

Ref:- 1) Lr.No.CGM(Comml & RAC)/SE/IPC/F:D.No.79/14 DUIL.04.2014

- 2) APERC Order dated 30,03,2010 in O.P. No.40 of 2010
- 3) APERC Order dated 11.07.2012 in O.P. No.7 of 2012

In the letter 1st cited, APCPDCL has requested the Commission to name necessary clarifications with regard to quantum of power to be evacuated on each size of the conductor (viz., 55 Sqmm, 100 Sqmm, 150 Sqmm, Panther, etc.) at 33 kV voltage level, as given in Annexure-1 of the APERC Order dated 30.03.2010 in O.P. No.40 of 2010.

After careful examination of the issue, in the partial modification of guidelines order issued in O.P. No.7 of 2012 the Commission grants discretion 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 clarifications on conductor size in this connection are required.

Further, it is clarified that the term "per circuit" mentioned at paragraph 12(iii) of the order dated 11.07.2012 in O.P. No.7 of 2012 can be interpreted as "per feeder",

This is issued with the concurrence of the Commission.

Yours faithfully,

Commission Secretary

Copy to:

The Chairman & Managing Director, APTransco, Vidyut Soudha, Hyderabad -82.

PS to the Chairman/APERC

PS to the Member (A)/APERC

PS to the Member (R)/APERC

For HETERO WIND POWER (PENNAR) PYT. LPD.

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

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# THE ANDHRAPRADESH GAZETTE PARTII 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 31st March, 2020.

### 2. Definitions and Interpretation:

- (1) In these regulations, unless the context otherwise requires,-
  - 'Act' means the Electricity Act, 2003 (Central Act 36 of 2003);
  - 'Capital cost' means the capital cost as defined in Regulation 10;
  - 'CERC' means the Central Electricity Regulatory Commission;
- (d) 'CERO 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;
- "Control Period means the period during which the norms for determination of tariff specified in these regulations shall remain valid;

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For HETERO WIND POWER (PENNAR) PYT. LAD.

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CHIEF GENERAL MANAGER P&MM&IPC

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- '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 turbing generators are connected;
- (h) 'MAT' means Minimum Alternate Tax;
- (i). 'MNRE' means the Ministry of New and Renewable Energy, Government of India;
- (i) '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 generaling stallon or the evacuation system;
- (b) 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
- (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 31\* 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 linancial 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 HETERO WIND POWER (PENNAR) PVT. LED.

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CHIEF GENERAL MANAGER P & MM & IPC

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,

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) Interestion loan capital;
- (c) Depreciation;
- (d) Interest on working capital;
- (e) Operation and Maintenance expenses

### 8. Levellized Tariff:

Levellized Tariff is calculated by carrying out levelization 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 Ment 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 HETERO WIND FOWER CHEMIAL

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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.

$$CC_{(0)} = P&M_{(0)} \cdot (1+F1+F2+F3)$$

$$P&M_{(0)} = P&M_{(0)} \uparrow (1+d_{(0)})$$

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

Where,

CC (n) = Capital Cost for nth year

:P&M<sub>(ii)</sub> = Plant and Machinery Cost for nº year

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

Note: P&M<sub>(n)</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)

do Ecapital Cost escalation factor for year (n) of control period

Sland Average WPI Steel Index prevalent for calendar year ending in (n-1) financial year of the

Slim = 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 Average WPI Electrical Machinery Index prevalent for calendar year ending in (n-1) financial year of the control period

El Average WRI 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

F1 = Factor for Land and Civil Work

F2 = Factor for Eraction 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 Railo:

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 1" of every year shall be worked out by securing the cumulative repayment up to March 31" of previous year from the gross normalize scars.
- (b) For the purpose of computation of tantif, the normalive interest rate shall be considered as average State Bank of India (SBI) Base rate prevalent quiring the first six months of the previous year plus 300 basis points.

FOR HETERO WIND POWER (PENNAR) PYT. LYD.

Authorised Signatory

CHIEF GENERAL MANAGER
P & MM & IPC

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:

- 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
- (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
- (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. Rebates

- ((1)) For payment of bills of the generating company through letter of credit, a rebate of 2% shall be
- 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 HETERO WIND POWER (PENNAR) PVT. LFD.

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CHIEF GENERAL MANAGER P & MM & IPC

- (a) 100% of the gross proceeds on account of CDM benefit 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%, whereafter the proceeds shall be shared in equal proportion, by the generating company and the beneficiaries.

#### 19. Taxos and Dutles:

- (a) 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 defermination 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 an 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 levelfized 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 suffing, and after giving an opportunity of hearing to the parties likely to be affected, relax any of the light areas of these Regulations on its own motion or on an application made before it by an interesting leave.

For HETERO WIND POWER (PENNAR) PYT. LFD.

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# 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 anses in giving effect to the provisions of these Regulations, the Commission may, by general of 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

- 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.
- 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 (I/c).

Hŷderabâd 31-07-2015.



# ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION HYDERABAD

Order No.03 of 2015 dated 01-08-2015

(Suo-motu)

Present: Justice G. Bhavani Prasad

- Chairman

Dr. P. Raghu

- Member

Si. P. Rama Mohan

- Member

In the matter of notifying the generic preferential tariff applicable from 31st July 2015 till 31st March 2016 in respect of Wind Power Projects in the State of Andhra Pradesh pursuant to Regulation 6 of Regulation No. 1 of 2015.

In compliance with the statutory mandate of Section 61 (h) and Section 86 (1) (e) of the Electricity Act, 2003 and in accordance with the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Wind Power Projects) Regulations, 2015 (Regulation No.1 of 2015) in general and Regulation No.6 thereof in particular and the principles and parameters prescribed therein for determination of generic preferential tariff on suo-motu basis for wind power projects and in exercise of the powers conferred under Regulation No.24 of the said Regulations and Regulation No.55 of the Andhra Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 (Regulation No.2 of 1999) and all other powers hereunto enabling, the Andhra Pradesh Electricity Regulatory Commission makes the following order:

As per Regulation 6 of Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Wind Power Projects) Regulations 2015, the generic preferential tariff applicable for FY2015-16 shall be notified soon after the publication of the regulations in the Official Gazette to be applicable with effect from the date of the regulations coming into force.

Before making Regulation No.1 of 2015, public notice was given and after considering all the suggestions and objections received from the public and the stakeholders, the said Regulation has been notified. The parameters for fixation of tariff specified therein work themselves out in arriving at the generic preferential tariff for the FY2015-16 as a necessary consequence, which is hence, a matter of mere arithmetical computation in implementation of and in compliance with the provisions of Regulation No.1 of 2015.

FOR HETERO WIND POWER (PENNAR) PVT. LFD.

Authorised Signatory

CHIEF GENERAL MANAGER P & MM & IPC

Accordingly, the parameters taken into consideration as per the Regulation No. 1 of 2015 for determination of tariff are as hereunder:

	Parameter	Value	
Α	Tariff Period	25 years	
В	Useful Life	25 years	
C	Capital Cost	`600 lakhs / MW (including	
		evacuation cost)	
D	O & M Expenses	`8.57 lakhs / MW	
E	O&M Expenses' Escalation	7.52% p.a.	
F	Depreciation for the first 10 years	.7%p.a.	
G	Depreciation for the remaining	1.33 %p.a.	
	useful life of the plant		
H	Capacity Utilization Factor (CUF)	23.5%	
	Return on Equity	16%	
J	Interest Cost on Debt	13%	
K	Tenure of Loan	10 years	
L	Interest on Working Capital	13.5%	
K	Debt Equity Ratio	70 : 30 ·	
	Discount Rate	10.81%	

Based on the above parameters and considering the useful life of the Wind Power Plants as 25 years, the levelised generic preferential tariff works out to '4.83 / unit without considering the accelerated depreciation and '4.25 with accelerated depreciation. The Commission accordingly, notifies the levelised generic preferential tariff as follows:

Tariff without	Tariff with AD
AD benefit	benefit
`4.83	`4.25

This tariff shall be applicable for all the new wind power projects entering into Power Purchase Agreements (PPA) on or after the date of notification of the Regulations in the Official Gazette of the Govt. of Andhra Pradesh i.e., 31-07-2015.

This order is signed, dated and issued by the Andhra Pradesh Electricity Regulatory Commission.

(By Order of the Commission)

Sd/-Dr. A. Srinivas Commission Secretary (i/c)

For HETERO WIND POWER (PENNAR) PYT. LFD.

Sambam

Authorised Signatory