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Purchaser: \$ P.N. Venkat Fri Sinha 86. P. Nalsing Ras For whom 1141 CO (Matternal Atlininum corporation Hd) BA 794724 N. PADMAJA LICENSED STAMP VEND L. No. 15-26-007/20 H. No. 4-70, Kamala Na Kandiguda, Sainikpuri, Sec'ba Ph. No. 9618397633

POWER PURCHASE AGREEMENT BETWEEN

SOUTHERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH LIMITED AND

M/s. NATIONAL ALUMINIUM COMPANY LIMITED (NALCO)

This Power Purchase Agreement (the "Agreement") entered into this 22 day of December 2012 between SOUTHERN Power Distribution Company of Andhra Pradesh Limited (DISCOM), incorporated by the Government of Andhra Pradesh in accordance with the Andhra Pradesh Electricity Reform Act 1998 (Act No.30 of 1998), under the provisions of Companies Act, 1956, having its office at 19-3-56/A, Ragavendra Nagar, Kesavayanagunta, Tiruchanoor Road, Tirupati Andhra Pradesh, 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 National Aluminum Company Limited (NALCO), having registered office at NALCO BHAVAN,P/1 Nayapalli, Bhubaneswar India, hereinafter referred to as the "Wind Power Producer" (which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) as second party;

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- 2. WHEREAS, the Wind Power Producer is setting up the New and Renewable Energy Project i.e., the 50.4 MW capacity Wind power project at Gandikota, Jammalamadugu Mandal, YSR Kadapa District, Andhra Pradesh (hereafter called the Project,) with a proposal of 0.252 MW for Auxiliary Consumption and 50.148 MW With HT Sc. No.______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 NREDCAP has accorded approval to the said project in their NREDCAP/WE/SYnefra/10008/2012, dated 17.7.2012 and NREDCAP/WE/4886/Samiran/2012, dated 17.7.2012 and the Wind Power Producer has entered into an Agreement with NREDCAP on 17.7.2012 and the copies whereof are attached herewith as Schedule-2 and Schedule-3 and schedule-4 respectively;
- 3. Where as Andhra Pradesh Electricity Regulatory Commission has notified APERC Renewable Power Purchase Obligation (Compliance by purchase of Renewable Energy /Renewable Energy Certificates) Regulations, 2012 (Regulation No. 1of 2012) dated: 21-03-2012 and its amendments from time to time.
- 4. And where as Wind Power Producer desires to sell entire wind energy from its 50.4 MW power plant to DISCOM under REC Mechanism under aforesaid APERC Regulations and Procedures.
- 5. WHEREAS, the Wind Power Producer shall achieve Commercial Operation Date within two years from the date of signing of this Agreement, default of which, the Agreement renders liable for termination and the same can be done at the option of DISCOM with due notice;
- 6. WHEREAS, the Wind Power Producer shall fulfill the conditions of Agreement entered with NEDCAP and obtain the extensions wherever required till the Project is completed. In the event of cancellation of the Project allotted to the Wind Power Producer by NEDCAP for any reason, the PPA with DISCOM will automatically get cancelled;

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7. 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 laws.

regulations and orders having the force of law;

8. Whereas, the proposed Project is being setup under cluster of Wind power projects proposed at Gandikota, Jammalamadugu Mandal, YSR Kadapa District, A.P.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 interconnection point along with other Wind power projects. The Project will also have a separate metering at Project's switchyard. The injection of power from the wind developer pooling station to the grid is to be limited to already technically approved capacity from the wind power producers under the pooling sub-station. Any future capacity addition under the same

pooling sub-station, necessary approvals for technical viability and system stability, shall be taken from the competent authority.

9. This Agreement is enforceable subject to approval of Andhra Pradesh Electricity Regulatory Commission (APERC) as per Section 86 of Electricity Act

2003;

10. 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.

time to time, and also subject to regulation by the APERC.

11. 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:

12. The APERC has conferred its approval to this Agreement vide its letter No. dated Lr No. E-501/14/REC/DIR-Engg/DD(PPP)/DNo. 1083/2012-01, dt 14.12.2012

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ARTICLE 1 DEFINITIONS

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

- 1.1 Agreement: Shall mean this Power Purchase Agreement executed under Renewable Energy Certificate (REC) Mechanism as per APERC Regulation 1 of 2012 hereof, including the schedules hereto, amendments, modifications and supplements made in writing by the parties from time to time.
- 1.2 APTRANSCO: Transmission Corporation of Andhra Pradesh Limited, incorporated by the Government of Andhra Pradesh.
- 1.3 Billing Date: means the fifth (5th) day after the Metering Date.
- 1.4 **Billing Month:** means the period commencing from 25th of the calendar month and ending on the 24th of the next calendar month.
- 1.5 Central Agency: means the agency i.e. NLDC located in New Delhi as designated by the CERC to give registration to the project based on Renewable Sources of energy and to undertake such functions as may be specified or directed by the CERC
- 1.6 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 Commercial Operation Date (COD) of the first unit of the project will be treated as the Commercial Operation Date of the project.

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1.7 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 1.13, 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 designated EHV substation of APTRANSCO.

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 50.148 MW 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 Project's switchyard to interconnection point and shall be calculated as per the formula mentioned below:

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

Where

 X_1 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 interconnection point and shall be:

Y is the reading of the common energy meter installed on the 132 KV side of the interconnection point, X_1 , X_2 , X_3 , X_4 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.

- 1.8. 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 Metering Date provided the bill is received by DISCOM within 5 days from metering 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. If the last date of payment falls on holiday, the next working day shall be considered as last date.
- 1.9. Financial Year: shall mean, with respect to the initial Financial 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 Financial Year shall end on the date of expiry of the Term or on termination of this Agreement, whichever is earlier.
- 1.10. Grid Code: means the Indian Electricity Grid Code issued by CERC vide notification No. L-1/18/2010-CERC, New Delhi, 28-04-2010 including any amendments and modifications thereto and AP Grid Code.
- **1.11. Installed Capacity:** means the total rated capacity in mega-watts of all the generators installed by the Wind Power Producer.
- 1.12. 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 voltage specified in Article 1.32 at the Wind Power Producer's expense

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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.

- 1.13. Interconnection Point: means the point or points where the Project and the APTRANSCO's / DISCOM grid system are interconnected. For this project, interconnection point is at the entry point of EHV 132KV Jammalamadugu substation of APTRANSCO. The metering for the Project will be provided at the interconnection point as per Article 4.1. As indicated in the Preamble of this Agreement, Interconnection point for this Project is common with other Wind power projects connected to 132KV Jammalamadugu substation through via 33KV/132KV Pooling Substation.
- 1.14. Metering Code: means CEA (Installation and Operation of meters)
 Regulations, 2006 dated: 17-03-2006 including any amendments and modifications thereto.
- **1.15. Meter Reading Date:** means mid-day (i.e., noon) of the 24th (twenty-fourth) day of each calendar month, at the Interconnection Point.
- **1.16. 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 three separate sets of 0.2 class accuracy
 ABT meters as specified in Article 4.1, main meter and Standby
 meter installed by the Wind Power Producer and the check meter

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National Aluminium Co. Ltd. Nalco Bhavan, P/1, Nayapalli Bhubaneswar-751 061 installed by the DISCOM and all meters sealed by the DISCOM, having facilities to record both export and import of electricity to / from the grid including its Captive Consumption. Necessary separate metering arrangements as per CEA Guidelines for measurement of Captive Consumption and Auxiliary Consumption shall be made by developer.

1.17 'Pooled Cost of Power Purchase': means the weighted average pooled priced at which the Distribution lisencee has purchased Electricity in the previous year from all the long term energy suppliers excluding the purchase based on liquid fuel.

Provide that the purchases from traders, short term purchases and purchases from renewable sources shall not be taken into account while determining pooled cost of power purchase.

- 1.18. Project: means the 50.4 MW capacity Wind power project at Gandikota, in R.S. Gut No. 373,368,376,93,319,636 in Gandikota North, Gandikota South & Yamavaram R.F. Jammalamadugu Mandal, YSR Kadapa District, Andhra Pradesh with a proposal of 0.252 MW for Auxiliary Consumption and 50.148 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-4 attached herewith and includes the metering system.
- 1.19. 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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1.20. Pooling or Receiving Substation: means 33 /132 KV Substation constructed, owned and maintained by the Wind Power Producer at Gandikota Jammalamadugu Mandal, YSR Kadapa District, A.P. 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.

1.21. Preferential Tariff: means Tariff determined by APERC with respect to kind of NCE, for sale of energy to DISCOMs

1.22. PTPPA: means Preferential Tariff PPA.

1.23. REC: means Renewable Energy Certificate issued by the Central Agency in accordance with the procedures prescribed by it under the provisions specified in the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance at Renewable Energy Certificate for Renewable Energy Generation) Regulation, 2010, as amended from time to time.

1.24. REC PPA: means Power Purchase Agreement entered under REC Mechanism, on the basis of pooled cost as decided by APERC in terms of Regulation No. 1 of 2012 of APERC.

1.25. "Regional Load Despatch Centre (RLDC)" means the Centre established under sub-section (1) of Section 27 of the Electricity Act, 2003;

1.26. RRF means: Renewable Regulatory Fund Mechanism as per the CERC order No. L-1/18/2010-CERC, dated: 18-02-2011.

1.27. SLDC: means the State Load Dispatch Center as notified by the State Government under the provisions of the Electricity Act 2003.

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1.28. State Agency: means the agency i.e. SLDC located in Hyderabad as designated by the Commission to give Accreditation to the project based on Renewable Sources of energy and to undertake such functions as may be specified or directed by the Commission

1.29. System Emergency: means a condition affecting the APTRANSCO's/ DISCOM's electrical system including grid 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.

1.30. 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 shall be inclusive of Wind Power Producer project also.

Explanation 1: Induction generators used in Wind Farms draw reactive power from grid during generator mode and motor mode. The introduction of KVAH billing in the retail tariff order of APERC reactive power drawn by wind power in motor mode is compensated.

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

1.31. 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).

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1.32. 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:

At 33 KV level:

Project interfacing		Specified type of	Proposed Wind power	
From	То	AAAC Conductor (size)	capacity on each 33 KV line	
	Existing 33/11 KV	55 sqmm	8 MW	
	DISCOM SS	100 sqmm	10 MW*	
		150 sqmm		
Wind project	EHT Pooling SS or existing EHT APTRANSCO SS	55 sqmm	8 MW	
		100 sqmm	12 MW	
		150 sqmm	17 MW	
*Capacity is	s restricted considering les	s load availability in DIS	SCOM SS.	

At EHT level:

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

This Project will generate electrical energy at 690 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 energy to the Interconnection point as per 1.7,1.13.

1.33 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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ARTICLE 2 PURCHASE OF DELIVERED ENERGY AND TARIFF

- 2.1 All the Delivered Energy at the interconnection point for sale to DISCOM will be purchased at the tariff provided for in Article 2.2 from and after the date of Commercial Operation of the Project. Title to Delivered Energy purchased shall pass from the Wind Power Producer to the DISCOM at the Interconnection Point.
- 2.2 The DISCOM shall pay a fixed rate of Rs. 2.00 per unit provisionally which shall be treated as ad-hoc notional pooled cost of Power Purchase which shall be replaced with the Pooled Cost of Power Purchase of FY 2011-12 that will be finalized by APERC and the eligible generating company shall be paid a pooled cost of power purchase as determined by the commission in terms of the above said Regulation year-on-year basis.
- 2.3 The tariff is inclusive of all taxes, duties and levies, to be borne by the developer.
- 2.4 All future increase in Taxes, Duties and Levies on Energy generated is to be borne by the Wind Power Producer.
- 2.5 Where in any Billing month, the energy supplied by the DISCOM to the Wind Power Producer as a bilateral arrangement to maintain the Auxiliaries in the power plant in situations of non-generation of power, shall be billed by the DISCOM, and the Wind Power Producer shall pay the DISCOM for such electricity supplies, at the DISCOM's then-effective tariff applicable to High Tension Category-I Consumers. For this purpose, the maximum demand specified in such DISCOM's Tariff shall be computed by dividing the amount of such energy supplied by the DISCOM by hours of drawl of power from the grid in the Month. The energy drawn from DISCOM network, as recorded by meters at interconnection point, shall be inclusive of the Wind Power Producer and of Wind Power Producer project also.

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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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ARTICLE 3 INTERCONNECTION FACILITIES

- 3.1 Upon receipt of a requisition from the Wind Power Producer, the APTRANSCO and DISCOM will prepare an estimate for arranging interconnection facilities for power evacuation at the voltage level as per Article 1.32. 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 Sub-station and from pooling Substation to evacuating substation (EHT substation) from time to time and necessary expenditure shall have to be borne by the Wind Power Producer. The maintenance work on the Generating units has to be done in coordination with the APTRANSCO and DISCOM.
- 3.4 The Wind Power Producer shall agree to pay to the DISCOM, on or before signing of this Agreement, at the rate of Rs.37,000/- per MW of Installed Capacity and for fractions thereof on a pro-rata basis as a one time lump sum payment for the sole purpose of providing the required MVAR capacity at the Substation of the APTRANSCO/DISCOM to which the Project is interconnected to supply the requisite reactive power to the Grid System. APTRANSCO/DISCOM shall install the capacitors of required capacity, at the substation of the APTRANSCO and DISCOM to which the project is interconnected before commercial operation date of the project.

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In case the APTRANSCO/DISCOM fails to install the capacitors of requisite capacity before the commercial operation date, the amount collected for this purpose shall be refunded by the DISCOM to the Wind Power Producer who has paid the amount, within 30 days from the date of commercial operation of the project.

Explanation: The erection of Capacitors need not be only at Pooling SS, can be nearest to/at the loads also(33KV/11KV SS).

- 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 any purpose, 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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ARTICLE 4 METERING AND PROTECTION

4.1 The Wind Power Producer shall install main meter and stand by Meter of Static type 0.2 class accuracy of ABT Meters at the Metering Point and the DISCOM shall install check meters of Static type 0.2 class ABT Meter at the same point and of the same accuracy. The main meters, check meter and stand by meter 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 and as per 1.14.

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_and as per 1.14.

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. If both the Main and check meters indicates an error beyond the limits, billing for the month will be reconciled on the basis of the reading on the Standby meter/meters, and the main and Check meters will be replaced immediately.

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4.5 If during the half yearly test checks, all the main meters and the corresponding check meters and Standby meters are found to be beyond permissible limits of error, all 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.

Corrections in delivered energy billing, whenever necessary, shall be 4.6 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.

4.7 If all the main, check and standby meters fail to record or if all/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, check and standby 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.

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4.9 All main, check and stand by meter 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 Metering 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 and as per 1.10.

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 Producer shall ensure that the power factor of the power

delivered to the DISCOM is maintained at or above the Minimum Power

Factor as per Tariff Notification, or otherwise pay Surcharge as per Tariff

Notification in force.

4.16 Any change in rupturing capacity of switch-gear, settings of the relays, etc.,

shall be subject to approval of the DISCOM.

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4.17 As the Project's generator may carry fault currents that may occur on the grid, the Wind Power Producer shall provide adequate generator and switchgear protection against such faults. The DISCOM is not responsible for damage, if any, caused to the Project's generator and allied equipment during parallel operation of the generator with the grid.

The Wind Power Producer shall make a good faith effort to operate the 4.18 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.

4.20 SLDC/ RLDC may instruct the wind generator to back down generation on consideration of grid safety and security or safety of any equipment or personnel is endangered and Solar/ wind generator shall comply with the same. For this, the wind power producer shall provide Data Acquisition System (DAS) facility in competable to SLDC SCADA system in consultation with SLDC for transfer of online information to concerned SLDC and RLDC as per the clause No. 5.2.U of Grid Code.

SLDC/RLDC may direct a wind farm to curtail its VAr drawl/injection (i) incase the security of grid or safety of any equipment or personnel is

endangered.

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- During the wind generator start-up, the wind generator shall ensure (ii)that the reactive power drawl (inrush currents in case of induction generators) shall not affect the grid performance.
- 4.21 The wind power producers shall ensure the connectivity standards applicable to the wind generating stations as per the Central Electricity Authority (CEA) Regulations and its amendments thereto.

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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 metering date.
- 5.2 The DISCOM shall be entitled to a rebate of 1% of the total amount billed in any billing month for payments made before the due date of payment. Any payment made beyond the due date of payment, DISCOM shall pay interest at existing nationalized bank rate (Prime Lending Rate) 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, by opening a revolving Letter of Credit for a minimum period of one year in favour of Wind Power Producer.
- 5.4 Letter of Credit: Not later than 30 days prior to the Scheduled COD of the first Generating Unit, DISCOM shall cause to be in effect an irrevocable revolving Letter of Credit issued in favour of Wind Power Producer by a Scheduled Bank (the Letter of Credit). Each Letter of Credit shall
 - (a) on the date it is issued, have a term of one year;
 - (b) be payable upon the execution and presentation by an officer of Wind Power Producer of a sight draft to the issuer of such Letter of Credit supported by a meter reading statement accepted and signed by both parties or a certification from Wind Power Producer that the DISCOM failed to sign the meter reading statements within five days of the metering date or that a supplemental bill has been issued and remains unpaid until the due date of payment;

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- (c) In the absence any dispute regarding the claim provide that Wind Power Producer shall have the right to draw upon such Letter of Credit notwithstanding any failure by the DISCOM to reimburse the issuer thereof for any draw made under; and
- (d) not less than 30 days prior to the expiration of any Letter of Credit, the DISCOM shall provide a new or replacement Letter of Credit. Each monthly bill or supplemental bill shall be presented at the said Scheduled Bank for payment under the Letter of Credit and shall become payable there under. The opening charges for Letter of Credit (L/C) and Letter of Credit (L/C) negotiation charges will be borne by the beneficiary Wind Power Producer.
- (e) L/C should not be invoked for any disputed bill amount.
- 5.5 Direct Payment: Notwithstanding the fact that a Letter of Credit has been opened, in the event that through the actions of the DISCOM, Wind Power Producer is not able to make a draw upon the Letter of Credit for the full amount of any bill, Wind Power Producer shall have the right to require the DISCOM to make direct payment of any bill by cheque or otherwise on or before the due date of payment by delivering to the DISCOM on or prior to the due date of payment of such bill a notice requiring payment in the foregoing manner. Without prejudice to the right of Wind Power Producer to draw upon the Letter of Credit if payment is not received in full, the DISCOM shall have the right to make direct payment by cheque or otherwise of any bill such that within 30 days after the date of its presentation to the designated officer of the DISCOM, Wind Power Producer shall receive payment in full for such bill. When either such direct payment is made, Wind Power Producer shall not present the same bill to the Scheduled Bank for payment against the Letter of Credit.

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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 therefore. 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 existing nationalized bank rate (Prime Lending Rate) 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.

- 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.
- 5.8 Not with standing any thing stated in this Article the dispute of correctness or otherwise of the applicable tariff, shall not be considered as billing dispute. Further in the event, the developer/company is found due of any amount to the DISCOM either under this agreement or under any other transaction, the DISCOM/first party is entitled to recons the said due amount by adjusting from the bill amount payable to the company.

Address

M/s. National Aluminium Company Limited

NALCO BHAVAN, P/1,

Nayapalli, Bhubaneswar -751061

India,

Telephone

: 0674-2300604/2300546

Fax

: 0674-2300610/2301200

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ARTICLE 6 UNDERTAKING

- 6.1 The Wind Power Producer shall be responsible:
 - (i) for proper maintenance of the project in accordance with established prudent utility practices.
 - (ii) for operation, maintenance, overhaul of the plant, equipment, works, switch yard and transmission lines and equipment up to the Interconnection Point of the project in close coordination with the DISCOM/APTRANSCO.
 - (iii) the Wind Power Producer shall furnish the generation and maintenance schedules every year, during demand, non-peak seasonal.
 - (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

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- (ix) the Wind Power Producer shall not dismantle and take away project machinery and interconnection facilities during the PPA term.
- (x) To share Clean Development Mechanism (CDM) benefit with DISCOM as per APERC orders from time to time.

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 132KV or above voltages, for synchronization, Commercial Operation, regular operation etc., as required by the Wind Power Producer.

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ARTICLE 8 NOTICES

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

If to the Wind Power Producer:

Address

To

The Executive Director (Production),

M/s. National Aluminum Company Limited

NALCO BHAVAN, P/1

Nayapalli, Bhubaneswar -751061

India,

Telephone

: 0674-2300604/2300546

Fax

: 0674-2300610/2301200

If to the DISCOM:

Attention

: Chief General Manager

Operation

APSPDCL, 19-3-56/A, Corporate Office,

Ragavendra Nagar, kesavayanagunta,

Tiruchanoor Road, Tirupati

Fax No.

: 0877-2237407

Telephone No.

: 0877-2237407

8.2 All notices or communications given by telecopy, telex or telegram shall be confirmed by depositing a copy of the same in the post office in an

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R. K. MISHRA
General Manager (Projects)
National Aluminium Co. Ltd.
Nalco Bhavan, P/1, Nayapalli

Bhubaneswar-751 061

ARTICLE 7 DURATION OF AGREEMENT

This Agreement is subject to para (5) of the Preamble and 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 10th anniversary that is for a period of Ten 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 ten 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.

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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 telecopy, telex or telegram 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.

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ARTICLE 9 DEFAULT

- 9.1 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 claimed such damages as would be available under Law or both, at its option, by giving 30 days notice to DISCOM.
- 9.2 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 claimed such damages as would be available under Law or both, at its option, by giving 30 days notice to Wind Power Producer.
- 9.3 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.

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ARTICLE 10 DISPUTE RESOLUTION

10.1 Each Party shall designate in writing to the other party a representative who shall be authorized to resolve any dispute arising under this Agreement in an equitable manner.

10.2. Following notice by one Party to the other setting out the particulars of the dispute, if the designated representatives are unable to resolve a dispute under this Agreement within 15 days, such dispute shall be referred by such representatives to a senior officer designated by the Wind Power Producer and a senior officer designated by the DISCOM, respectively, who shall attempt to resolve the dispute within a further period of 15 days.

10.3. The Parties hereto agree to use their best efforts to attempt to resolve all disputes arising hereunder promptly, equitably and in good faith and further agree to provide each other with reasonable access during normal business hours to any and all non-privileged records, information and data pertaining to any such dispute.

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

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ARTICLE 11 SPECIAL PROVISIONS

- 11.1 The waiver of any breach or failure to enforce any of the terms, covenants or conditions of this Agreement shall not in any way affect, limit, modify or waive the future enforcement of such terms, covenants or conditions.
- 11.2 No oral or written modification of this Agreement either before or after its execution shall be of any force or effect unless such modification is in writing and signed by the duly authorized representatives of the Wind Power Producer and the DISCOM, subject to the condition that any further modification of the Agreement shall be done only with the prior approval of Andhra Pradesh Electricity Regulatory Commission. However, the amendments to the Agreement as per the respective orders of APERC from time to time shall be carried out. All the conditions mentioned in the Agreement are with the consent of APERC.
- 11.3 However, in respect of power evacuation, the voltage levels for interfacing with grid will be as per Article 1.32. 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

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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.

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.

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R. K. MISHRA General Manager (Projects)

National Aluminium Co. Ltd. Nalco Bhavan, P/1, Nayapalli

Bhubaneswar-751 061

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 ANDHRA PRADESH LIMITED

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1. S. H. Rasheed By DE PAPA I SPOUL FOR Dorred

2.

Its:

For and behalf of

M/s. NATIONAL ALUMINIUM COMPANY LIMITED,

WITNESS

1. DEBASHIS MOHANTY BY:

Dy. Mgr. (Elect-), NALCO

Vinod & Landya

Its:

CHIEF GENERAL MANAGER
OPERATION

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R. K. MISHRA

General Manager (Projects) National Aluminium Co. Ltd. Nalco Bhavan, P/1, Nayapalli

Bhubaneswar-751 061

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*
M/s. National Aluminum Company Limited	Gandikota in survey Nos . R.S. Gut No. 373,368,376,93,319,636 Jammalamadugu Mandal, YSR Kadapa District, A.P	24 Nos each 2.1	50.4MW

* Out of 50.4 MW 0.252 MW is for Auxiliary Consumption and 50.148MW is for export to grid for sale to DISCOM.

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