

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

Ref No: - AAI/Leh/NTB-P/ENGG(E)/Solar/WO-02/2023/456

Date: 18.10.2023

By Speed post/ E-mail
(npvservicesmp@gmail.com)

To,
M/s NEWSOL PV POWER PRIVATE LIMITED
Shop no. 304F-305A,
Sagar High Street ,Ayodhya By Pass Road
Bhopal, Madhya Pradesh-462041

Name of work: - Construction of New Terminal Building & associated work at Leh Airport. SH :- Installation, Testing and Commissioning of On-Grid Solar Photo-Voltaic Power Plant System.

Ref:- 1. Your Tender ID: 2023_AAI_165280_1 and financial bid opened on dtd. 28.09.2023.
2. Negotiation meeting held on dtd:09.10.2023

1. Your e-tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India at the item rates totaling to **Rs. 2,25,72,820.00/- (Rupees Two Crore Twenty Five Lakh Seventy Two Thousand Eight Hundred and Twenty Only)** excluding GST which is 2% above than the estimated cost put to tender of Rs. 2,20,86,284.00/- (excl. GST).
2. **Dy. General Manager (Engg.-E)**, Airports Authority of India, KBR Airport Leh-194101 shall be Engineer-in-Charge of the work. You are requested to depute your accredited representative, empowered to sign the contract agreement on your behalf to attend the office of **General Manager (Engg.-Project)**, Airports Authority of India, KBR Airport Leh-194101 within 15 days from stipulated date of start of work (as per para 6 of the work order) to sign and complete the agreement. The contract agreement shall be executed on a **Non-judicial stamp paper (Leh)** of value **Rs.100/-** (Rs. One Hundred only) and the cost of the stamp paper shall be borne by you.
3. Please deposit an amount of **Rs. 22,57,282.00/- (Rupees Twenty Two Lakhs Fifty Seven Thousand Two Hundred and Eighty Two only)** towards security deposit within 10 days from the date of issue of this order, failing which, the same will be deducted from your running bill as per Clause 1A on page GCC16 of the Tender Document. The Security deposit amount will be released after defect liability period which shall be reckoned from the date of completion of work
4. You are requested to comply with the provisions of Contract Labour (Regulation and Abolition) Act of 1970 and Contract Labour (Regulation & Abolition) Central Rules 1971 and Minimum Wages Act and Rules there of Central and State Government.
5. You are directed to contact **Sr. Manager (Engg.-E)- I, Leh Project** , Airports Authority of India, KBR Airport Leh-194101 immediately who will arrange to hand over the site to you.
6. Please note that the time allowed for carrying out the work is **Four (04) months** and same shall be reckoned from the 10th day after issue of this letter.

Handwritten signature and date 18/10/23

(O/o General Manager (Project), Kushok Bakula Rinpoche Airport, Leh-194101.
Mail ID:- gmproject-leh@aai.aero



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7. The defect liability period shall be of **01 year** from the actual completion date as recorded in the measurement book.
8. Any further correspondence in connection with this contract should normally be addressed to **Dy. General Manager (Engg.-E)**, Airports Authority of India, Leh Project-194101
9. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned either via email or post as a token of acceptance.
10. All other terms and conditions will be as per Tender document.

H.R.M.
11/8/23

DGM (Engg. - E)
For and on behalf of the Chairman
O/o GM Project Leh
Airports Authority of India
KBR Airport Leh

Enclosed:- Schedule of Quantities.

(O/o General Manager (Project), Kushok Bakula Rinpoche Airport, Leh-194101.
Mail ID:- gmproject-leh@aai.aero

Schedule of Quantity

Name of Work: Construction of New Terminal Building & associated work at Leh Airport. SH : Installation, Testing & Commissioning of On-Grid Solar Photo-Voltaic Power Plant System

Contract No: Tender Reference Number : AAI/ENGGE/LEH/NTB/2023-24/02 Tender Id: 2023_AAI_165280_1

Name of the Bidder/ Bidding Firm / Company :		NEWSOL PV POWER PRIVATE LIMITED				
Sl. No.	Item Description	Item Code / Make	Qty.	Units	Rate	Total Amount
1	SH-I Installation, Testing & Commissioning of Solar PV System					
2	Design, Shifting, Installation, Testing and Commissioning of provided Monocrystalline Solar PV Modules of Jakson make, Brand -Helia, Model JH-550M, having power rating 550 Wp (Qty.= 1152 Nos. approx.) as specified in Technical data sheet, required to be transported from Gwalior Airport to Leh Airport i/c necessary packing as required, loading, unloading duly mounted on Flushed Type Terminal Building Roof top (made up of Standing seam Double skin Insulated Roofing over MS Structure) of New Terminal Building with suitable mounting structure & the same shall be designed & installed by suitable size solar clamp and anodized aluminium channels alongwith the suitable size fasteners to maintain proper ventilation of the arrays of modules, holding of module with metallic roof sheet groove and solar module tightly without drilling / puncturing the metallic roof sheet i/c carrying out shadow analysis and shall capable to withstand the wind speed up to 150KMPH with anti-corrosion feature considering altitude of 3515m above MSL, ambient temperature Max. 40°C; Min. -30°C including levelling, connecting Modules with not less than Single Core 4sqmm, 1500V PV Copper Wire to form a Array-String, providing and fixing of suitable size IP 65 DC outdoor type Junction box (JB) for connecting the module output with the provision for Isolation, String Monitoring and Control for each String including suitable mounting arrangement for JB, providing and laying of DC Cabling not less than Single Core 6 Sq.mm (1.5 KV) Copper Cable of suitable runs from the JB to Inverter subject to voltage drop shall not exceed 2%, in 50 mm dia heavy duty UPVC Pipe including SS clamping which shall be laid on covered GI perforated cable tray of suitable size as required, Termination of Cables with glands and lugs, Earthing of Modules and Structures throughout with 25 X 5 MM GI Strip, Marking of DC Cable Routes etc. as required.	item1	1	Job	5000820.00	5000820.00
3	Design, Shifting, Installation, Testing and Commissioning of Total Capacity of 500 KW (AC) Power Conditioning Unit/Inverter Grid Connected Photovoltaic with duly provided Outdoor Type IP 66 String Inverter of each Capacity 125 KW (AC) having Make-Growatt, Model- MAX125KTL3-XLV (Qty.-04 Nos.) i/c transportation of said inverters from Gwalior Airport to Leh Airport i/c necessary packing as required, loading, unloading etc followed with mounting arrangement, connection, interconnections, earthing, termination of DC cables with necessary glands and lugs into Inverters etc. complete all as required as specified.	item2	1	Job	600000.00	600000.00
4	Design, Supply, Installation, Testing and Commissioning of a Solar Radiation and Environment/Weather Monitoring System (WMS) to monitor and communicate the Parameters Like Global Horizontal Irradiance – Pyranometer, Collector Plane Irradiance – Pyranometer, Ambient Temperature, Module Temperature, Wind Speed and Direction, Relative Humidity Rain Fall/Precipitation including providing and fixing of requisite Instruments/Sensors/Computer Hardware and licence free Software etc. complete all as required. Note:- Scope of Communication through OFC cable has been considered in separate BOQ item.	item3	1	Job	400000.00	400000.00
5	Design, Supply, Installation, Testing and Commissioning of SCADA System for SPV PP for Local and Remote Web Based Monitoring to Monitor / Communicate and Control as applicable for Environment Monitoring System/PV Modules/String Monitoring Unit/Inverter/DC-AC Switch Gears/LT Panels for Electrical Parameters and Weather Parameters including providing and fixing of requisite Computer Hardware and Software etc. complete all as required and as specified. Note1:- The SCADA System consist of two PC Systems with one Desktop at Server installed in BMS room of Utility building and one Desktop shall be provided in the AAI Electrical room of Terminal building for remote performance monitoring of the System. Note2:- Scope of Communication through OFC cable has been considered in separate BOQ item	item4	1	Job	350000.00	350000.00

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Sl. No.	Item Description	Item Code / Make	Qty.	Units	Rate	Total Amount
6	Provision of DG Sets & Solar PV power Plant control systems by developing logic in such a way that whenever the Grid supply fails and DG sets are put in operation, the controller will ramp down the solar power generation by controlling the Inverters to avoid DG hunting etc including laying of suitable size controlling and communication cables, fixing of tower lamp Annunciation buzzer in Power house, Electrical control room etc. complete all as required and as specified. Note1:- Atleast Two nos. of controller panel are required to be provide. One in Terminal building and one in Utility building. Note2 :- The Quote for this item covers the scope of providing and laying of controlling and communication cables.	item5	1	Job	400000.00	400000.00
7	SITC of 5 KVA UPS along with suitably designed VRLA Battery having minimum back up time of 1 Hour with MS Racks for SCADA System including providing and fixing Copper Wiring (with suitable size Cable) for Input and Output Cabling, termination etc., as required.	item6	1	Job	200000.00	200000.00
8	SH-ISITC OF LT COMBINATION PANEL					
9	Fabrication, Supply, Installation, Testing and Commissioning of 3 phase, 415V TPN, 50Hz, AC System, draw out Cubicle type, Single front, free standing floor mounted, Totally enclosed, top cable entry, metal enclosed switchboards (LT AC Combination Panel) suitable for operation at indoor site conditions (min. temp. -5 degree celsius, design temp. +40 degree celsius, storage temp. of -22 degree celsius, altitude of 3515 m above m.s.l.) made out of 2mm Thick CRCA Sheet Steel for Outer Shell and 1.6 mm Thick CRCA Sheet for Inner Partition complete with all accessories, interconnection, CTs, PTs, connection, earthing, powder coated, provision of bottom base channel and locking arrangements etc., as per approved drawings, specifications complete all as required and comprising of the following:					
10	1 Set of 415V, 1600 A, Al. Bus-bars, 50 KA for 1 Sec switch board with following feeders.					
11	A) Six Nos. (04 nos Working + 02 Nos. Spare) of 320 A, 50 KA, 4P MCCB (Ics=100%Icu) with Microprocessor based Releases for OC/SC/EF Protection and ROM as INCOMER (w r t Solar from Individual Inverter) with Resin Cast C.T. operated Digital Meter [EM 6400 of Conserve/Equivalent]. ON/OFF/TRIP Indication Lamps and Phase Indication Lamps, All accessories such as fuses, auxillary contactors, auxillary switches, etc. as required.					
12	B) One No. of 1250 A, 50 KA, 4P, MDO, ACB with Microprocessor based Releases for OC/SC/EF Protection and ROM as OUTGOING (w r t Grid), with ON/OFF/TRIP Indication Lamps and Phase Indication Lamps, All accessories such as fuses, auxillary contactors, auxillary switches, etc. as required.					
13	Total LT Panel mentioned above	item7	1	Job	1200000.00	1200000.00
14	SH-III CABLING WORKS					
15	Supply of XLPE insulated and PVC sheathed Aluminium Conductor armoured power cable of 1.1 KV grade conforming to IS 7098 (Part-I) 1988 as amended upto date and of following size as required: a) 3.5 X 300 SQ MM	item8	550	Mtr	1500.00	825000.00
16	Supply of XLPE insulated and PVC sheathed Copper Conductor armoured power cable of 1.1 KV grade conforming to IS 7098 (Part-I) 1988 as amended upto date and of following size as required: a) 3.5 X 95 SQ MM	item9	100	Mtr	1200.00	120000.00
17	Laying and Fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp) on the existing cable tray as required.	item10	1000	Mtr	1500.00	1500000.00
18	Laying and Fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size Above 35 sq. mm and upto 95 sq. mm (clamped with 40x3mm MS flat clamp) on the existing cable tray as required.	item11	100	Mtr	1000.00	100000.00
19	Supplying and making indoor end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. a) 3.5 X 300 SQ MM	item12	8	Nos	1500.00	12000.00
20	Supplying and making indoor end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. a) 3.5 X 95 SQ MM	item13	8	Nos	1500.00	12000.00
21	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required a) 3.5 X 300 SQ MM	item14	4	Nos	20000.00	80000.00
22	Supply of 06 F OFC of Single Mode, armoured, multi tube, double sheath, suitable for outdoor application conforming to ITU-T-G652 & IEC60973 & 60794 with up-to date amendments as required.	item15	1000	Mtr	250.00	250000.00

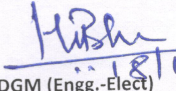
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Sl. No.	Item Description	Item Code / Make	Qty.	Units	Rate	Total Amount
23	Supply of Permanently Lubricated HDPE Pipe of 40 mm Outer dia and 33 mm inner dia made of PE 100 Material and suitable for Pressure PN 6 as required on the existing cable tray as required.	item16	700	Mtr	452.00	316400.00
24	Supply and making of splicing and termination of 06 F OFC in Terminal box including providing all accessories and Specialised Manpower complete as required.	item17	10	Job	800.00	8000.00
25	Laying [by Pulling/Blowing] of OFC of up to 24F with PLB-HDPE Pipe, Sealing of Pipes etc., as required on the existing cable tray as required.	item18	700	RM	800.00	560000.00
26	SH-IV EARTHING WORKS					
27	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	item19	4	Nos	20000.00	80000.00
28	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required. -(Module Strucure Continuous Earthing is not covered)	item20	150	Mtr	700.00	105000.00
29	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. -(Module Strucure Continuous Earthing is not covered)	item21	200	Mtr	700.00	140000.00
30	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with existing surface/recessed conduit/submain wiring/cable as required. (Module Strucure Continuous Earthing is not covered).	item22	250	Mtr	700.00	175000.00
31	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/coke and salt as required.	item23	4	Nos	650.00	2600.00
32	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required. -(Module Strucure Continuous Earthing is not covered).	item24	150	Mtr	500.00	75000.00
33	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required. -(Module Strucure Continuous Earthing is not covered).	item25	350	Mtr	500.00	175000.00
34	SH-V LIGHTING CONDUCTOR & FIRE PROTECTION ITEMS					
35	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, GI tube, having single prong at top, with 85 mm dia 6 mm thick GI base plate including holes etc. complete as required.	item26	6	Job	15000.00	90000.00
36	Providing and laying G.I. tape 32 mm X 6 mm from finial on surface as required.	item27	200	Mtr	300.00	60000.00
37	Providing and laying G.I. tape 32 mm X 6 mm from earth electrode (Finial) directly in ground as required.	item28	20	Mtr	300.00	6000.00
38	Providing & fixing of Carbon-dioxide (CO2) Type fire extinguishers conforming to IS 2878-1976 and cylinder fully charged of 4.5 Kg capacity as required.	item29	5	Job	5000.00	25000.00
39	Supply and fixing of foam type fire extinguishers [Portable Type of 9 Litre Capacity] as required	item30	5	Job	5000.00	25000.00
40	Supply and fixing of foam type fire extinguishers [Portable Type of 9 Litre Capacity] as required	item31	2	Nos	5000.00	10000.00
41	Supply and fixing of Safety Instruction Chart (in words) duly framed with 5mm thick glass complete as required.	item32	3	Job	5000.00	15000.00
42	Providing & fixing a set of 4 Nos. 9.5 Litre capacity GI bucket painted in post office red colour and written with white paint 'Fire' and mounted on MS angle iron frame with bracket of appropriate size and capacity including filling sand complete as required.	item33	1	Job	5000.00	5000.00
43	SH-VI APPROVALS					
44	Preparation of Drawings, necessary data i/c Liasoning Work for getting Approval and obtaining sanction for energization of Solar PV system and associated Electrical System from Central Electricity Authority/EB/Any other Nodal Agency of Central/State Government as required.	item34	1	Job	250000.00	250000.00
45	Carrying out of Glare Analysis and Reflection Analysis for Airport Operation with respect to positioning of PV Modules, Submission of Reports, Assisting AAI in getting NOC/Clearance from AAI NOC Wing/DGCA/Other Statutories Bodies related to Safety, Recommendation for suitable installation Procedure for Safe Operation of Aircrafts etc., as required.	item35	1	Job	150000.00	150000.00
46	SH-VII PART B. OPERATION & ALL INCLUSIVE COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (AICAMC)					
47	Operation & All Inclusive Comprehensive ANNUAL Maintenance Contract of Grid Connected 500 KW (AC) at Roof Top of New Terminal Building at Leh Airport as per the SCC & as specified.					
48	Operation of 500KW AC solar PV plant during one year DLP- First year	item36	1	Year	700000.00	700000.00

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Sl. No.	Item Description	Item Code / Make	Qty.	Units	Rate	Total Amount
49	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Second year	item37	1	Year	750000.00	750000.00
50	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Third year	item38	1	Year	800000.00	800000.00
51	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Fourth year	item39	1	Year	850000.00	850000.00
52	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Fifth year	item40	1	Year	900000.00	900000.00
53	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Sixth year	item41	1	Year	950000.00	950000.00
54	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Seventh year	item42	1	Year	1000000.00	1000000.00
55	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Eighth year	item43	1	Year	1050000.00	1050000.00
56	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Ninth year	item44	1	Year	1100000.00	1100000.00
57	Operation & CMC of 500KWAC Solar Module + 4X125KVA Inverter + SCADA system + WMS - Tenth year	item45	1	Year	1150000.00	1150000.00
	Total				₹	2,25,72,820.00

(Rupees Two Crores Twenty Five Lacs Seventy Two Thousand Eight Hundred Twenty Only)


 18/10/23
 DGM (Engg.-Elect)
 For and on behalf of Chairman
 O/o GM Project Leh
 Airports Authority of India
 KBR Airport Leh.