Document (1)

KILBURN CHEMICALS LTD.
A-81, Sipcot Industrial Complex,
South Veerapandiapuram P.O.,
Thoothukkudi - 628 002.
Ph. : 234 0491 (4 Lines) Fax : 0461 - 234 0449
E-Mail : pur@kilburnchemicals.com

IAC No. : 303
TNGST No. : 5020870
CST No. : 173275 / 18/11/92
ECC No. : AAACK1427AXM001

PURCHASE ORDER

M/s. SUZLON ENERGY LTD
UNIT - IV, OPP WHIRLPOOL INDIA LTD,
THIRUVANDARKLI, MANNADIPET COMMUNE,
PONDICHERRY - 605 107.

Vendor Code : S2193

Order No. :	Date :
PW/424	01-08-2005

P.R. No./Date :

Quotation/Bill No. : SEL/CHN-O/459/04-05 dt.17.01.05, E-mail dt.18.07.05, Lr. dt.22.06.05 & 21.07.05 Tech. discussion 27.07.05

Please register this order for supply of items described below and execute as per instruction given below & overleaf. Kindly acknowledge receipt.

Sl. No.	ITEM CODE	ITEM DESCRIPTION	U/M	QUANTITY	RATE	VALUE
1	OTP	Supply of suzlon S66-1250 KW Wind Turbine Generator comprising mainly of Nacelle, Hub and set of three blades, Controller (Micro Processor), Power material & Hardware and Electrical items. (The rate shown Rupees in lacs)	NO	1.000	479.95	479.95
2	OTP	Handling, Loading, Insurance and Transportation Charges. (Rupees in lacs)	LS	1.000	4.00	4.00
					Total	483.95

Price Basis :	Packing & Forwarding :	Excise Duty :	Sales Tax / Central Sales Tax :
Ex works Pondicherry	As above	Inclusive	Inclusive
Delivery Schedule :	**Mode of Despatch :**	**Freight :**	**Others :**
Before 20th Sep'05	Thro' reliable and bank approved transporter	To-Pay	Nil

Payment Terms : As per enclosed Annexure.

Special Conditions : Other terms and conditions are shown in the enclosed Annexure.

Packing Specification : To be securely packed to avoid damages in transit.

Insurance : Please inform the despatch details to enable us to arrange insurance at our end.

Note : Excise Control Code No. AAACK 1427 AXM 001 must be indicated clearly on your invoice.

PLEASE SEND CENVAT COPY

Acceptance of this order constitutes the acceptance of Terms & Conditions of face and printed overleaf.

For & on behalf of
KILBURN CHEMICALS LTD.,

M. N. Krishnan
Authorised Signatory

ANNEXURE

Annexure to our Purchase order No: PW/434 dated 1st August 2005

1. Quantity

- 1 No. WTG type SUZLON S66 1250 kW rating with tubular Tower having 74 meter hub height. The scope of supply is as given in your offer and further as per the technical specifications attached (Annexure I).

2. Price

- For WTG as specified above, we agree to pay Rs.483.95 Lacs towards total consideration for the supply in total, which may be, bifurcated item wise by you.

3. Price basis

- The delivery terms are F.O.R. our site.
- The above prices include taxes, duties, levies etc., at the prevailing rates. Any increase in these taxes, duties, levies etc. will be payable extra. Similarly any increase due to introduction of new taxes, duties, levies etc. will also be payable extra. The period for considering these additional incidences of taxes, duties, levies etc. will be from the date of this purchase order till the supplies are over.
- We will issue 'C' Form within 7 days from the date of receipt of your invoice. In case it is not possible to issue 'C' Form, we agree to pay Sales Tax @ 12% or general rate of tax whichever is higher.

4. Delivery

- The delivery will be made from your Pondicherry works to our site. The delivery of WTG shall be completed on or before September 20, 2005. Part shipments of individual WTG will be accepted.
- We reserve the right to depute our representative or third party consultant, if we desire to do so, for inspection of major components at your factory prior to dispatch.
- Delivery schedule automatically stands extended in the event of non-adherence to the payment schedule indicated in Clause 5 below.

5. Payment

We will effect total payment of Rs.483.95 lacs as under:

- Rs.113.95 lacs as interest free advance along with order
- Rs.142.00 lacs on intimation of dispatch of Tower material or on 7th September 2005 whichever is later.
- Rs.142.00 lacs on intimation of dispatch of nacelle or on 10th September 2005 whichever is later.
- Rs.86.00 lacs on intimation of dispatch of blades or on 15th September 2005 whichever is later.

6. Insurance

- We will take the fire & allied perils, earthquake & third party risk insurance policy from the date of commissioning on annual basis.

7. Generation

- The estimated generation should be 34 lacs units per WTG per annum. If the estimated generation of 34 lac units per WTG per annum, measured at controller duly adjusted for 100% grid availability, for a period of 12 months from the date of regular running of the WTG, falls below the average generation of the adjacent identical WTGs (≤ 4 Nos.) during the corresponding period, you will compensate for the difference in generation as per prevailing TNEB tariff.
- The generation guarantee is for a period of 24 months from the date of regular running of the WTG.
- In case the WTG achieves the estimated generation as above, no compensation is payable.
- It is explicitly understood that no generation loss claim will be admissible in the event of non-adherence to the agreed payment schedule.

8. Warranty

- You will provide us two years warranty effective from the date of commissioning against all defects in components, material and engineering. You will undertake all repairs/replacements of the WTG parts as required during this warranty period at your cost.
- These warranty provisions will be null & void if the WTG units are opened in the absence of your engineers or without your prior written consent.
- This warranty will not cover damages due to lightning and over voltage and normal wear & tear.
- Warranty provided by you is subject to full payment by us as per terms of this purchase order.

9. Operation and Maintenance

- You will provide one set of your Operation & Maintenance manual.
- You will make necessary arrangements for a contract covering Operations, Maintenance, Security & Spares with an O&M Service Provider free of cost during the 1st year of operation; from 2nd year to 6th year from date of commissioning we agree to pay O&M charges @ Rs.10.00 lacs per WTG per annum with 5% annual escalation after 3rd year, for each year cumulatively.
- From 7th year onwards the O&M will be carried out as per mutual agreement.
- We will not take any policy covering machinery break down.

- He will enter into an O&M contract with the service provider arranged by you before expiry of the free O&M period.
- You will arrange to maintain minimum 95% machine availability throughout the contract period through your Operation & Maintenance Service Provider as per the calculations below :

$$\text{Machine Availability} = \frac{\text{Recorded Available Hours at WTG's (A)}}{8760-(S+LW+HW+GF+FM)}$$

Where,

S -Means Hours for Scheduled service and maintenance
LW -Means Hours of Too Low Wind (<3.5m/s)
HW -Means Hours of Too High Wind (>25m/s)
GF -Grid Non availability Factor in hours.
FM -Force Majeure conditions defined as under:

10. Force Majeure

a. Fire, Flood, epidemics, earthquake, quarantine restrictions
b. War, Invasion, Hostility, Acts of public enmity, Sabotages, explosions, strikes, lockouts, revolution, act of civil commotion etc.,
c. Government order and /or restrictions, changes in the government of Import policy.
d. Maintenance of electrical installations and grid restrictions as imposed by TNEB.
e. TNEB Strike
f. Any situation beyond reasonable control.

11. Reactive Power

- Charges levied by TNEB on reactive power of above 4% of the active power export generated on annual basis by the WEG would be borne by you after a stabilization period of 90 days (during first year only) @ Rs.0.30 per KWH from the date of commissioning . Hence, this amounts to no liability on you for the reactive power up to 90 days from the date of commissioning.
- The difference in power export between LCS & TNEB Meter should not be more than 2%.

12. Time Schedule

- You should give the schedule of work, for the completion of the project within two days from the date of receipt of our order, confirming the commissioning before 30th September 05.

CHEMICALS LTD., THOOTHUKKUDI | Sheet No.

-4-

eneral Terms

- This Purchase Order is subject to jurisdiction of Tuticorin.
- This Purchase Order is subject to Force Majeure conditions as in Clause No.11.
- This Purchase Order is subject to Standard Arbitration under the relevant Indian Arbitration & Conciliation Act 1996.
- The compensation / penalty under this purchase order on all counts, will be subject to a maximum of Rs.10.00 Lacs.
- You will be making necessary arrangements for passing on the CDM benefits accrued from the date of commissioning through your Associate Company. M/s Synergy Global. You will facilitate for MoU between M/s Synergy Global and M/s Kilburn Chemicals in this regard.

CDM

Kindly return us a copy of duly signed Purchase Order as acceptance to the terms and conditions mentioned above.

Thanking you,
Yours faithfully,
for KILBURN CHEMICALS LTD.,

M N L

AUTHORISED SIGNATORY

Encl.: Annexure-1.

ANNEXURE - I

TECHNICAL CONCEPT & SPECIFICATION OF SUZLON S66 (1250 kW) WTG

ROTOR

Diameter	:	66 m
No. of Rotor Blade	:	3
Orientation	:	Upwind/Horizontal axis
Rotational Speed	:	13.8 / 20.7 rpm.
Rotational Direction	:	Clockwise
Rotor Blade Material	:	GRP
Swept area	:	3421 m^2
Hub Height	:	74 m
Regulation	:	Pitch regulated

OPERATIONAL DATA

Cut in wind speed	:	3 m/s.
Rated wind speed	:	14 m/s.
Cut off wind speed	:	22 m/s.

GEARBOX

Make	:	Flender or its associate company
Type	:	Integrated 3 Stage 1 planetary & 2 helical
Gear ratio	:	1: 74.917
Nominal load	:	1390 KW
Type of cooling	:	Oil cooling system, Forced lubrication

GENERATOR

Make	:	Siemens
Type	:	Asynchronous 4-6 pole
Rotation speed	:	1006/1506 RPM
Rated output	:	300/1250 kW
Rated voltage	:	690 V
Frequency	:	50 Hz
Insulation	:	Class "H"
Enclosure Class	:	IP 56
Cooling system	:	Air cooled

OPERATING BRAKES

Aerodynamic brake	:	3 Independent systems with blade pitching
Mechanical brake	:	Spring powered disc brakes, hydraulically released, fail safe

YAW DRIVE

Method of operation	:	4 Active electrical yaw-motors
Bearing type	:	Polyamide slide bearing

CONTROL UNIT

Microprocessor control with graphic backlit LCD display indicating operation conditions. Control includes thyristor switchgear watchdog for operation, monitoring, log with real time, local control and servicing interface. Optional remote monitoring & operation. UPS back up system.

Reactive Current Compensation
Compensation : Dynamic & Intelligent, with PF greater than 0.9

SAFETY SYSTEMS

1. Brake System : Automatic application by synchronous hydraulic control of the blade pitching in case of:

- Vibration or shock loading
- Over temperature of the gearbox or generator failure of the thyristors & control in the case of wind speed in excess of 25 m/s.
- Variation in the Rated Voltage Range
- Variations in the Frequency range
- Asymmetric phasing
- Line interruption with automatic reconnection

2. Brake System : Spring applied hydraulically released disk brake.

TOWER

Type : Free standing, Tubular tower,
Tower Height : To suit hub height
Construction : Bolted,
Erection : With crane
Design : GL special class