निविदा पूछताछ
TENDER ENQUIRY

[वेब निविदा]
[WEB TENDER]

माझगांव डॉक शिपबिल्डर्स लिमिटेड
(भारत सरकार का उपक्रम)
MAZAGON DOCK SHIPBUILDERS LIMITED
(Formerly known as Mazagon Dock Limited)
(A Govt. of India Undertaking)
CIN: U35100MH1934GOI002079
Dockyard Road, Mumbai 400 010
Website- www.mazagondock.in
Certified - ISO 9001: 2008 for Shipbuilding Division
GST ID : 27AAACM8029J1ZA

निविदा सं./Tender No	2000007665
क्रय अधिकारी/Purchase Exec.	S N BANOTH
सेवा में /To	
दूरभाष सं./Telephone	
फैक्स सं./Fax	
ई-मेल/E-Mail	

विभाग/Department	MATERIAL-PURCHASE
क्रय अधिकारी/Purchase Exec.	S N BANOTH
दूरभाष सं./Telephone No	23763248
फैक्स सं./Fax No	23738151
ई-मेल/E-Mail	snbanoth@mazdock.com
निविदा सं./Tender No	2000007665
निविदा तिथि/ Tender Date	16.12.2020
निविदा बंद की तिथि/Tender Closing Date	06.01.2021
निविदा बंद होने का समय/Tender Closing Time	14:00:00
आरएफक्यू सं./RFQ No	2010013206

निविदा शुल्क/Tender Fee	रू/Rs	0.00	
बयाना राशि/EMD Amount	रू/Rs	0.00	
पुर्व बिड बैठक तिथि और समय/Pre Bid Meeting Date & Time			,00:00:00
निविदा खोलने की तिथि और समय/Tender Opening Date & Time			07.01.2021,14:00:00
प्रस्ताव वैधता तिथि है/Offer should be valid up to			06.05.2021
सुरक्षा जमा/Security Deposit			0.00 %आदेश मूल्य का/PO value
वरीय बैंक जमानत /Perf. Bank Guarantee			10.00 %आदेश मूल्य का/PO value

(आगे के विवरण हेतु कृपया सम्बंद्ध नियम शर्तो को पढ़े। सुनिश्चित करें कि कोटेशन और संबंधित पत्राचार के लिए विभाग का नाम, क्रय अधिकारी का नाम, निविदा संख्या, बंद होने का समय एवं तिथि एवं आरएफक्यू सं. अपने कोटेशनमें लिखें।
Kindly read and refer relevant terms & conditions for further details. Do ensure to Quote Department Name, Purchase Executive 's Name , Tender Number, closing date & time and RFQ Number in your Quotation & related correspondence)

प्रिय महोदय/महोदया
Dear Sir / Madam ,

विषय /SUB:- SUPPLY OF SOLAR INVERTER FOR SOLAR PLANT

माझगाँव डॉक शिपबिल्डर्स लिमिटेड प्रतिष्ठित/संभावित आपूर्तिकर्ताओं से निम्न हेतु, प्रतियोगितात्मक दो बोली प्रणाली में (भाग -। तकनिकी - वाणिज्य बोली एवं भाग ।। मूल्य बोली) बोली आमंत्रित करती है।
Mazagon Dock Shipbuilders Limited (MDL) invites Competitive – Bid from reputed Supplier for the following in TWO BID system (Part - । Techno - Commercial Bid & Part - ।। Price Bid).

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
00100	सामग्री सं./ Material Number :- PCU/Grid Tied Solar Inverter for solar p सामग्री वर्णन/Material Description :Three phase Power Conditioning Unit (Grid Tied Solar String Inverter of minimum 20kW Capacity)	3 Number	25.05.2021

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a) Three phase, Power conditioning unit(PCU)/Solar Inverter shall consist of 2 MPPT Controller, 6 pairs MC4 string connection type inverter and minimum capacity 20KW with associated control & protection devices.
b) PCU/Inverter shall convert DC Power generated by SPV modules into A.C Power and must synchronize automatically it's A.C output to the exact A.C voltage and frequency of the local grid.
c) The PCU/ inverters shall have minimum 2 MPPT and MPPT and 6 pairs of MC4 Connectors. D.C. energy produced has to be utilized to maximum and supplied to the bus for inverting to A.C. Voltage to extract maximum energy from solar module with total harmonic voltage distortions less than 3% to synchronize to the local grid. D.C. voltage ripple content shall not be more than 3%. Grid Frequency Synchronization range + 3 Hz or more
d) PCU/Inverter shall be of very high quality having efficiency not less than 98% and shall be capable of running in integrated mode.
e) Degree of protection of PCU shall be minimum IP 54.
f) PCU/Inverter shall be capable of complete automatic operation, synchronization and shut down independently and automatically.
g) Both A.C and D.C line shall have suitable fuses, surge arrester and contactors to allow safe start up and shut down of system. Fuses used in D.C. circuit shall be D.C rated.

h) Following protection shall be provided in PCU/s:

i) Over voltage both at Input and Output.
ii) Over current both at Input and Output.
iii) Over or under grid frequency
iv) Heat sink over temperature
v) Short circuit
vi) Protection against lightening
vii) Surge arrester to protect against surge voltage induced at output due to external source.

i) It shall have user friendly LCD / LED display for programming and for viewing parameters such as:

i. Inverter per phase voltage, current, KW, KVA and frequency
ii. Grid voltage and frequency
iii. Inverter on line status
iv. PV panel voltage
v. Solar charge current and ambient temperature
vi. Inverter import export kWh summation
vii. Solar KWH summation
viii. Inverter on
ix. Grid on
x. Inverter under voltage/over voltage
xi. Inverter over temperature
j)PCU/Inverter shall have arrangement for adjusting DC input current and should trip against sustainable fault downstream and shall not start till fault is rectified.
k)PCU/Inverter shall be capable to synchronize independently and automatically with local grid

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power line frequency to attain synchronization and export power generated by solar plant to the local grid.
l)PCU/Inverter shall be capable to with stand an unbalanced load conforming to IEC standard and relevant Indian electricity conditions. PCU shall have self-protective and self-diagnostic features to protect itself and the PV array from damage in the event of PCU component failure for due to any internal or external causes.
m)PCU/Inverter shall go to shut down or standby mode with its contact open, When the power available from PV array is insufficient to supply the losses of PCU, the PCU shall go to stand by / shut down mode.

n) ANTI-ISLANDING (Protection against Islanding of grid): The PCU/Inverter shall have anti islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116 or equivalent BIS standard.

o) GRID ISLANDING: In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "Islands." Powered Islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.
p) A manual disconnect 4-pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

q) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.
r) The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068-2 (1,2,14,30)/ Equivalent BIS Std.
s) The PCU/ inverters should be tested from the MNRE approved test centres/NABL/ BIS/ IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.
t) Make: The PCU/inverters shall be of reputed make and proven product like SMA Technology/ ABB /Delta Electronics / KACO. If any other, make of inverter is offered the firm shall submit documents to prove the past performance of that particular make inverter for the last 05 (five)years. The documents submitted to prove the performance of inverters other than specified make shall be in English language or a translation in English attested by a competent person. It shall provide necessary protections for Grid Synchronization and data logging /monitoring.
u) The bidders shall attach technical catalogue for the PCU/Inverter offered by them
Warranty:- one year from date of supply

नियम और शर्तें : भाग ए मे लिखी हुई और इतर संलग्नपत्रे इस निविदा एक अभिन्न अंग हैं।हमें आशा हैं की,हमें प्रतियोगित्मिक और उचित प्रस्ताव इस निविदा के लिए प्राप्त होगा।
Terms & Conditions as indicated in Part A of this tender and other enclosures / annexures form an integral part of this tender document. We look forward to receive your most competitive and reasonable offer against this Tender.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड के लिए /For Mazagon Dock Shipbuilders Ltd

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date

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माझगाँव डॉक शिपबिल्डर्स लिमिटेड के लिए /For Mazagon Dock Shipbuilders Ltd

Signature Not Verified

Digitally signed by BANOTH SRINIVAS NAYAK
Date: 2020.12.16 11:28:41 IST
Location: PSUs of Ministry of Defence-DEFPSU