

Bharat Heavy Electricals Ltd.,
(A Government of India undertaking)
Electronics Division
PB No.2606, Mysore Road, Bangalore-560026, India


E-Tender

The Quotations are invited under two part bid system for supply of 10 sqmm Cu EBXL XLPO cable at GNFC 10 MW and GSFC 10MW Solar PV project.
Tender is procured through e-procurement route. Kindly refer website <https://eprocurebhel.co.in/nicgep/app> for details.

RFQ NO and date	AKPBOS0018 dated 1; .11.2020 (e-tender)
RFQ due date & time	26.11.2020 up to 13.00 hrs (IST)
Date, Time & Venue of Part-I Bid Opening	26.11.2020 at 13.30 hrs (IST)
Date, Time & Venue of Price Bid opening	Will be intimated later for technically accepted vendors
Address for Commercial Communication & Contact Person in BHEL (MM dept)	Mr. Srinivas Anakapalli (09916999898)/ Mr. Vivek Kumar Yadav (09449039232), SC&PV MM Department, BHEL Electronics Division, PB NO 2606, Mysore road, Bangalore-560 026. INDIA Email: srinivasa.a@bhel.in , vivekyadav@bhel.in Telephone number: +91 80 26998824, +91 80 26998237
Address for Technical Communication & Contact Person in BHEL with CC to MM dept	Mr SHEETAL PRASAD (9739913232) Dy Manager SC&PV ENGINEERING Department, BHEL Electronics Division, PB NO 2606, Mysuru road, Bengaluru-560 026. INDIA Email: sheetalprasad@bhel.in Telephone number: +91 80 26999551

Any Deviations from or additions to the "General Conditions of Contract" or "Special Conditions of Contract" require BHEL's express written consent. The General Terms of Business or Sale of the Bidder shall not apply to this tender.

REQUEST FOR QUOTATION

	BHARAT HEAVY ELECTRICALS LIMITED Electronics Division PB No. 2606, Mysore Road Bangalore - 560026 INDIA	RFQ NUMBER: AKPBOS0018 RFQ DATE : 1; .11.2020	Due Date/Day: 26.11.2020VWG Time : 13:00 HRS
MMI:PU:RF:003	(address for communication) :		(for all correspondence)
		Purchase Executive : SRINIVAS ANAKAPALL Phone : 080 26998824 Fax : E-mail: srinivasa.a@bhel.in	

SI No.	Description	Qty	Unit	Delivery qty	Delivery Date
1	PS0679073531 10 sqmm Cu EBXL XLPO - Black * HSN/SAC : 8544 Test Certificate	6,000	M	4,500 1,500	16.12.2020 16.12.2020
2	PS0679073540 10 sqmm Cu EBXL XLPO Black with Red line * HSN/SAC : 8544 Test Certificate	6,000	M	4,500 1,500	16.12.2020 16.12.2020

Total Number of Items - 2

1.
2.

TWO PART BID	
NOTES: 1. This RFQ is governed by: a) INSTRUCTIONS TO BIDDERS/SELLERS and GENERAL CONDITIONS OF CONTRACT FOR PURCHASE available at http://edn.bhel.com (RFQ-PO Terms & Conditions) b) Any other specific Terms and Conditions mentioned. * The HSN/SAC no mentioned against the line items in the RFQ are indicative only.	For and On behalf of BHEL. SRINIVAS ANAKAPALL Semiconductors & Pho 1 OF 1

Pre-Qualification Criteria (PQC) for Tender Ref: AKPBOS0018

DC Cable - 1CX 10 Sqmm:

- 1) Vendor shall be OEM of cables as per EN 50618. As evidence to this, vendor shall enclose their product catalog.
- 2) Vendor should have already obtained type test certificates for 1Cx10 sqmm copper cables with EBXL XLPO insulation and outer sheath layers as per EN 50618. As evidence to this, vendor shall enclose the certificates and test reports from NABL accredited lab for all type tests as per EN 50618.
- 3) Vendor should have supplied minimum 12 Km of 1Cx6 or higher size cable as per EN 50618 for solar PV power plants in India during the past three years with ref to the date of opening of Part-1 bid. As evidence to this, vendor shall enclose copies of purchase orders and the supply completion proof in form of Invoice/ LR/ customer letter.
- 4) During technical evaluation, Credentials of vendors will be submitted to end customer (M/s GNFC and GSFC) for approval. Only the price bids of those vendors, **who are technically qualified and Approved by end customer** (M/s GNFC and GSFC) before price bid opening, will be considered for further procurement processing.


Quantity distribution of RFQ AKPBOS001 for supply of 10 sqmm Cu EBXL XLPO cable at GNFC 10 MW and GSFC 10MW Solar PV project.

Total quantity of 12000 MTR cable is to be sent to 02 sites as detailed below:

Material Code	Material Description	QTY(MTR)	Site
PS0679073531	10 sqmm Cu EBXL XLPO - Black	4500	GNFC 10MW SPV site
PS0679073540	10 sqmm Cu EBXL XLPO Black with Red line	4500	GNFC 10MW SPV site
PS0679073531	10 sqmm Cu EBXL XLPO - Black	1500	GSFC 10MW SPV site
PS0679073540	10 sqmm Cu EBXL XLPO Black with Red line	1500	GSFC 10MW SPV site

NO splitting between vendors is applicable.

Any changes in splitting ratio based on the MSE act /Make in India policy or due to any other reason, same will be applicable as per extant government guidelines.

	Purchase specification, Group: Photovoltaics 1 core x 10 sq-mm Cu, EBXL XLPO insulated and Sheathed Solar cable	PS-439-1194
		REV NO: 01
		PAGE : 1 OF 4


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company**

Technical specification

**For
Supply of 1 core x 10 sq-mm Cu, EBXL
XLPO insulated and Sheathed Solar cables**


Revision details :R 01	Prepared <i>Sheetal Prasad</i> SP	Approved <i>Rachin</i> PRV	Date 18 -11-2020
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	Purchase specification, Group: Photovoltaics 1 core x 10 sq-mm Cu, EBXL XLPO insulated and Sheathed Solar cable	PS-439-1194
		REV NO: 01
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This technical specification provides BHEL's requirement for supply of 1CX10 sq-mm cables for the solar photovoltaic (SPV) project.

A. Technical specification

#	Particular	BHEL specification
1.0	Item description	Cable, 1 core x 10 sq-mm, 1.8 KV DC (maximum), Annealed tinned copper conductor, EBXL XLPO Insulated and Sheathed Solar Photovoltaic Cable.
2.0	Application	Suitable for use in outdoor application for interconnection of solar photovoltaic (SPV) modules in SPV power plants.
3.0	Applicable standard	EN 50618
4.0	Voltage grade	Maximum permissible voltage = 1800 V DC (conductor – conductor, non-earthed system, circuit not under load)
5.0	Type of cable	H1Z2Z2-K
6.0	Conductor	
a)	Material	Flexible Annealed tinned copper conductor as per class 5 of IEC 60228
b)	Cross sectional area (Nominal)	10 sq-mm
c)	Maximum diameter of wires in the conductor	For 10 sq-mm: 0.31 mm
d)	Maximum conductor resistance at 20 °C (DC)	For 10 sq-mm: 1.95 Ohm per Km
e)	Current Carrying Capacity	As per EN 50618
7.0	Insulation	
a)	Material	Electron beam cross link (EBXL) Cross-Linked Polyolefin (XLPO)
b)	Nominal insulation thickness	0.7 mm
c)	Max. conductor temperature	120°C – Normal continuous operation 250°C – Short circuit condition for 5 seconds
8.0	Insulation color for identification	Natural or as per manufacturer's standard.
9.0	Outer Sheath	
a)	Material	Electron beam cross link (EBXL) Cross-Linked Polyolefin (XLPO)
b)	Nominal Thickness of outer Sheath	0.8 mm
c)	Colour of outer sheath	Black or Black with red lining, quantity as per individual item requirement of BHEL

	Purchase specification, Group: Photovoltaics 1 core x 10 sq-mm Cu, EBXL XLPO insulated and Sheathed Solar cable	PS-439-1194
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d)	Overall diameter of cable	Vendor shall indicate actual dimension, tolerance for 10 sq-mm cable.	
10.0	Minimum bending radius	Vendor shall indicate the same with applicable standard for 10 sq-mm cable.	
11.0	Type Tests	<p style="text-align: center;">As per EN 50618 Type test certificate / provisional certificate issued from NABL accredited laboratories to be submitted by the vendor along with the technical offer.</p>	
a)	Electrical Tests		
b)	Constructional and dimensional tests		
c)	Pressure test at high temperature at complete cable		
d)	Damp heat test		
e)	Resistance against acid & alkaline solution		
f)	Test of influence		
g)	Cold impact test at -40°C		
h)	Cold bending test		
i)	Ozone resistance test		
j)	Weathering/ UV-resistance test		
k)	Dynamic penetration test		
l)	Shrinkage test		
m)	Test under fire condition		
12.0	Routine Tests		
a)	High voltage Test	As per EN 50618	
b)	Conductor resistance test	As per EN/IEC 60228	
c)	Spark Test	As per EN 50618	
13.0	Acceptance Tests	Sampling for acceptance test will be as per IS 7098	
a)	Conductor resistance test	As per EN/ IEC 60228	
b)	High voltage Test	As per EN 50618	
c)	Insulation resistance test	As per EN 50618	
d)	Annealing test	As per EN/ IEC 60228	
e)	Thickness of insulation & sheath	As per EN 50618	
f)	Hot set test	As per EN 50618	
g)	Tensile and elongation at break test for insulation & sheath	As per IEC-60332-1, IEC-60754-1, ASTM D-2843, EN 50618	
h)	Flame retardence test	As per EN 50618	
i)	Ageing Test	As per EN 50618	
j)	Outer finish check	Manufacturers standard	
14.0	Pre-dispatch inspection at Vendor works	Prior to dispatch of the item, vendor shall provide inspection call to BHEL to witness the acceptance tests as per clause 12.0 and 13.0 as above.	
15.0	Manufacturing Quality Plan / Quality Assurance Plan	Vendor shall submit Manufacturing Quality Plan for BHEL/BHEL-customer approval within 1 week of placement of Order.	

	Purchase specification, Group: Photovoltaics 1 core x 10 sq-mm Cu, EBXL XLPO insulated and Sheathed Solar cable	PS-439-1194
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16.0	Test certificate	Three copies of test certificate shall be supplied with BHEL PO number and date, BHEL specification number, Cable description, Manufacturer name, Part number, Size & Length of the cable, Batch / Lot number. Test certificate shall contain test description, measured values of dimensions and cable properties, and acceptance limits.
17.0	Cable identification	Printing/embossing shall be done on outer sheath with following information throughout the length of the cable: Manufacturer name, brand name or trade mark, Cable size, Cable code, Voltage grade of the length of cable. The printing/embossing shall be continuous in line with EN 50618. Sequential marking shall be at every 1 m of cable length. Word 'FRNC' printing at every 5 m
18.0	Packing and marking	
a)	Packing	Both the ends of the cables shall be properly sealed with heat shrinkable PVC/ rubber caps secured by 'U' nails so as to eliminate ingress of water during transportation, storage and erection. Alternatively, supplier can do alternative packaging of whole Drum/Spool to eliminate ingress of water during transportation, storage and erection. Wood preservative anti-termite treatment shall be applied to the entire drum.
b)	Drum	Drums shall be either plastic spools or wooden drums as per IS:10418-1972 or equivalent, with suitable size.
c)	Marking on the drum	Each drum shall be marked with following information: BHEL PO number and date, Cable description, Manufacturer name, Part number, Size & Length of the cable, Cable code, Voltage grade, Approx gross mass, Year of manufacture.
d)	Cable length in each drum	1000 meter or 2000 meter, tolerance +/- 5 %

B. Documents to be submitted along with offer without which offer is likely to be rejected.

1. Type test certificate as per EN 50618 issued from NABL accredited laboratories.
2. Filled in values/details wherever the same is asked for in BHEL technical specifications.
3. Vendor has to enclose the deviation sheet clause wise separately in case any deviations are sought by the vendor. Absence of any deviation sheet shall be taken as compliance of BHEL specification in total without any deviation.

C. Documents to be submitted within 1 week after receipt of Purchase order for approval

1. Technical datasheet of the cable with cable cross section sketch.
2. Manufacturing Quality Plan (MQP) indicating all tests/checks regarding raw material, in-process and final product as per relevant standards, as called in this document and any other relevant standards shall be submitted to BHEL/BHEL's customer for approval.

BHEL UNIT	EDN Bangalore	
RFQ/NIT/Enquiry no.	AKPBOS0018	
Description	Supply of 10 sqmm Cu EBXL XLPO cable at GNFC 10 MW and GSFC 10MW Solar PV project	
Techno Commercial Form		
VENDOR NAME	M/s _____	<p>Note:</p> <p>1)Vendor Name To be Filled by vendor.</p> <p>2)This form to be signed with Name and seal on all the pages and to be uploaded as acceptance to technocommercial conditions along with other applicable documents under "PQC documents/techno commercial certificates/forms/documents" packet cover ref:2020_BHEL_206_pack1_661 of the NIT</p> <p>3) Acceptance and submission of signed technocommercial form is treated as confirmation on "NIL DEVIATION ON TECHNO-COMMERCIAL TERMS" indicated in the techno commercial form.Technical or Commercial Deviation if any shall be separately uploaded under "PQC documents/techno commercial certificates/forms/documents" packet cover ref:2020_BHEL_206_pack1_661 of the NIT.</p> <p>Deviations indicated in any other place shall not be considered by BHEL and the same are not valid.</p>
Sr. No	DESCRIPTION	Details
1	TENDER TYPE	THIS TENDER IS NOT A GLOBAL TENDER. THE TENDER IS INDIGENEOUS OPEN TENDER . PLEASE REFER TENDER DOCUMENTS FOR DETAILED TERMS AND CONDITIONS APPLICABLE FOR THE TENDER.
2	Price Basis	Firm i.e., from the date of PO to completion of supply if I&C is not applicable. If I&C is in supplier's scope,then the prices shall remain Firm till commissioning & handing-over of the complete system.(PVC clause not acceptable).
3	Terms of Delivery	FOR INDIGENOUS VENDORS: Free On Road Basis to 10 MW GNFC Charanka SPV and 10MW GSFC Charanka SPV Plant
4	Delivery Period	Delivery within 03 weeks from date of Manufacturing clearance. Delivery is essence of the contract . Offer is liable for rejection if BHEL delivery period is not accepted.
5	Payment Term	FOR INDIGENOUS VENDORS:(a) Supply: 100% of Basic value with taxes will be paid with credit 45 days from the receipt of material or credit 15 days from the date of submission of complete set of documentation whichever is later. PBG is not applicable.
6	Payment Term	FOR FOREIGN VENDORS(a) :NOT APPLICABLE
7	Payment Term	(b) For any deviation in payment term, the offer will be liable for loading as per Clause G of ITB.If loading not acceptable, offer will be outrightly rejected.
8	Evaluation of L1 vendor	Evaluation to be done on package wise, L1 of Supply on FOR destination basis to site will only be considered.
9	Warranty	Warranty : 18 months from supply
10	Pre Shipment Inspection	(a) Pre Shipment Inspection will be carried out by BHEL/Customer for which test report shall be sent atleast one week in advance.
11	Pre Shipment Inspection	(b) Pre Shipment Inspection charges , if any, shall be considered while evaluating your offer to arrive at "Total Cost to BHEL".The charges for the same shall be informed to you before Price Bid Opening/Reverse Auction.
12	Penalty	(a) Supply: Penalty of 0.5% per week at the basic price of the good for undelivered quantity of supply portion, subject to a maximum of 10%. For Supply, Pre Shipment Inspection Call Letter Date (Receipt of test report) will be treated as delivery for purpose of penalty.In case PSI call given without test report, then actual date of inspection only will be considered as date of delivery for purpose of penalty calculation.
13	Penalty	(b) For any deviation in penalty term, the offer will be liable for loading as per Clause No. G, Point No.(b) of ITB.
14	E-way bill	E-way bill to be generated by vendor before dispatch of goods as per dispatch instructions provided by BHEL.
15	Performance bank guarantee (PBG)	NOT APPLICABLE FOR THIS TENDER
16	Despatch Documents (Indigenous)	FOR INDIGENEOUS VENDORS:Complete set of despatch documents in 3 sets shall be forwarded to BHEL directly. Despatch documents include 1.Invoice 2 copies in original2.Packing List3.Delivery challan4.Original receipted LRS.Copy of Inspection call letter issued by vendor to BHEL along with internal test reports/certificates.6.Warranty Certificate as per PO7.Dispatch clearance certificate issued by BHEL to vendor8.Material Receipt Certificate issued by BHEL site.9.Copy of manufacturing clearance or document approval e-mail issued by BHEL.10.Inspection MOM with test reports/test certificate11.Subvendor packing list/invoice (If applicable)12.Copy of way bill generated13.Bank guarantee –NOT APPLICABLE14.Copy of order acknowledgement for having received PO15.Copy of Insurance intimation fax/e-mail/letter16.3€NIL&€ short-shipment certificate.
17	Despatch Documents (Foreign)	FOR FOREIGN VENDORS:NOT APPLICABLE
18	Reverse Auction	NOT APPLICABLE
19	Other terms & conditions	For detailed Terms and Conditions, kindly refer to the following:A: ITB (document ref :SCPV: BOS: ITB – Rev 05)B: GCC (document ref: SCPV: BOS: GCC – Rev 04).Any Deviations from or additions to the "General Conditions of Contract" or "Special Conditions of Contract" require BHEL's express written consent. The General Terms of Business or Sale of the Bidder shall not apply to this tender.
20	Validity	Quotation should remain valid for a period of 90 days from the due date.
21	Shipment	Kindly indicate the state from where the shipment will take place.
22	Bank charges (for foreign bidders only)	NOT APPLICABLE
23	DUN No. (for foreign bidders only)	NOT APPLICABLE
24	Consignment Details	Weight and Dimension of consignment with packing.
25	Freight Charges	Freight charges are under vendor scope.Included in the basic cost.
26	Insurance	Insurance is in vendor scope. Included in basic cost.
27	Changes in tender condition	Any changes in the tender conditions, specification etc or in splitting ratio based on the MSE act /Make in India policy or due to any other reason, intimation will be given only to the vendors who have participated in this tender, hence it is mandatory that vendors should participate in the tender.
28	Tolerance	Negative Tolerance is not acceptable. Positive tolerance of +1% in total quantity is acceptable However, Drum length shall be maintained as per Purchase Specification.
29	Quantity distribution between GNFC 10MW and GSFC 10MW Solar projects	As per Quantity Distribution between GNFC 10MW and GSFC 10MW sheet in tender document
30	INTEGRITY PACT	NOT APPLICABLE FOR THIS TENDER
31	ADDITIONAL CONDITIONS	Any vendor who has been banned by BHEL or against whom action due to non performance has been initiated by BHEL are not eligible for participation. Such offers will not be considered for evaluation and will be rejected.
32	UNLOADING	unloading at site is under BHEL scope.
33	Pre Qualification Criteria Documents Submitted	As per PQC document in NIT
34	Evaluation Currency	The evaluation currency for this tender shall be INR
35	Declaration required under Rule 144(xi) of General Financial Rules, 2017 amendment dt 23.07.2020 issued by Ministry of Finance, Govt. of India.Refer Annexure-X for Restrictions under Rule 144(Xi) of General Financial Rules,2017 amendment dt:23.07.2020.	The Bidder shall mandatorily submit Declaration as per format enclosed as part of tender(ANNEXURE-A)

36	MSE status(Applicable for MSE vendors only)	Documents to be submitted for claiming MSE status:Option 1(valid till 31.03.2021):submission of Udyog Aadhar Memorandum along with CA certificate as per ANNEXURE VIII of NIT. Option 2:Submission of Udyam Registration certificate. Latest MSE guidelines and circulars with subsequent amendments(if any) will be applicable for this tender.Please refer NIT for MSE guidelines.
37	GST ITC	1.E-invoicing under GST is being implemented w.e.f. 1st October 2020 for all the taxable person having turnover more than Rs. 500 Crore. It has been specified by the Govt that it is mandatory to mention a valid unique Invoice reference number (IRN) and QR code as generated from Govt. portal on a Tax invoice. Based on such information, GST ITC as claimed by BHEL in GST Returns shall be matched with the corresponding details uploaded by supplier in E-invoicing system.2.In case the vendor delays or fails to provide all the documents as per the Purchase order at the time of submitting Tax invoice to BHEL, any subsequent financial loss to BHEL on account of vendor shall be to vendor's account. BHEL has further right to take necessary steps to protect its interest at the time of release of payment.
38	Special Conditions of Contract (SCC)	In addition to the ITB and GCC stipulated in the tender document, the terms and conditions indicated under techno commercial form shall be treated as "Special Conditions of Contract (SCC). In case of Conflict between General Conditions of Contract (GCC) available in Tender document and Special Conditions of Contract (SCC) stipulated under bidding forms, SCC will prevail over GCC.
39	Price Variation Clause(PVC)	NOT APPLICABLE FOR THIS TENDER
40	Tax regime and introduction of Sec206C(1H) on sale of goods	Please note that with the recent changes in Tax regime and introduction of Sec206C(1H) on sale of goods with effect from 01.10.2020 the vendors in line with the provisions of the said section are to collect TCS @0.075% from 01.10.2020 upto 31.03.2021 and 0.1% from there on Invoice value.(a).Vendor should raise /levy TCS in the Tax invoice itself. No separate debit note will be accepted.(b).Vendor should indicate his Pan# and Tan # in the Tax invoice.(c).Vendor should remit the TCS so collected from BHEL and provide TCS certificates with invoice no., invoice date, Amount etc. breakup details.(d).If by any chance vendor is not remitting /not able to submit TCS certificates to BHEL on time then the TCS amount with penalty if any applicable will be recovered from vendor in his available bills.
41	Preference to make in India order2017 dated 16.09.2020	Government circular for Preference to make in India order2017 dated 16.09.2020 and subsequent amendments(if any) shall be applicable for this tender.
42	NIL Deviation to the Technocommercial terms	This form to be signed with Name and seal on all the pages and to be uploaded as acceptance to technocommercial conditions. Acceptance and submission of signed technocommercial form is treated as confirmation on "NIL DEVIATION ON TECHNO-COMMERCIAL TERMS" indicated in the techno commercial form.Technical or Commercial Deviation if any shall be separately uploaded under "PQC documents/techno commercial certificates/forms/documents" packet cover ref:2020_BHEL_206_pack1_661 if the NIT. Deviations indicated in any other place shall not be considered by BHEL and the same are not valid.
43	General Terms	The General Terms of Business or Sale of the Bidder shall not apply to this tender. No commercial terms to be attached, if attached it will be considered null and void.
44	Corrigendums	All corrigendums will be published in this e-procurement system(https://eprocurebhel.co.in/nicgep/app/) / www.bhel.com . Vendors to keep themselves updated regularly and submit offers as required.
45	Declaration under Cartel formation	The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.