

Online tenders are invited in two stage bid system i.e. Technical bid and Financial Bid as per the details given below in Schedule-A

SCHEDULE-A
(Effective w.e.f 11.12.2019)

Sr. No.	PARTICULARS	REMARKS
1	Tender Notice No.	08/ 2020-2021
2	Sr. No. of Tender.	03
3	Superscribed No. of Tender.	56/HR/RC/E-4/2020-21
4	Online submission of EMD, Tender fee & e-Service Fee Option-1: Through Net Banking and Debit card	On or before last date of submission of Technical Bids upto 12:00 Noon
5	Online submission of EMD Option-2: Through RTGS/ NEFT- <i>(In case of above, the bidder has to pay Tender Fee & e-Service Fee Through Net Banking and Debit card as per the given date & time schedule)</i>	On or before 01.07.2020 Upto 02:00 P.M.
6	On line Bid Preparation & submission.	Upto 03.07.2020 at 02:00 P.M.
7	Date & time of opening of Technical Bids/s.	On or after 03.07.2020 at 02:30 P.M.
8	Date & time of opening of Financial Bids/s	To be decided later on
9	Tender Fee:	
	(I) For Haryana based manufacturing Micro and Small Enterprises (MSEs) & Khadi Village Industries Unit eligible as per the "Haryana State Public Procurement Policy for MSME - 2016" notified vide G.O. No. 2/2/2016-4I BII(1) dated 20-10-2016 and as amended from time to time.	NIL
	(II) For Haryana based Startups/First Generation Entrepreneurs eligible as per State policy "Concession/benefits in Public Procurement to Startups/First Generation Entrepreneurs of State" issued vide G.O No.2/2/2016-4I B-II dated 03.01.2019.	NIL
	(III) For remaining bidders both from the Haryana and Non Haryana	Rs. 5000/-
10	Earnest Money Deposit (EMD) required:	
	(I) For Haryana based manufacturing Micro and Small Enterprises (MSEs) & Khadi Village Industries Unit eligible as per the "Haryana State Public Procurement Policy for MSME - 2016" notified vide G.O. No. 2/2/2016-4I BII(1) dated 20-10-2016 and as amended from time to time.	NIL
	(II) For Haryana based Startups/First Generation Entrepreneurs eligible as per State policy "Concession/benefits in Public Procurement to Startups/First Generation Entrepreneurs of	NIL

	State” issued vide G.O No.2/2/2016-4I B-II dated 03.01.2019.	
	(III) Central or Haryana Public Sector Enterprises and “approved sources” as declared by the Industries Department, Haryana	NIL
	(IV) For remaining bidders both from the Haryana and Non Haryana	2,00,000/-
11	E-Service Fee	Rs. 1000/-
12	Date and time of receipt of samples (if required)	On 03.07.2020 from 02.30 PM to 04.30 P.M
13	Rates to be kept valid for acceptance upto:	31.12.2020

A. Information to Bidders:

The Bidders can download the tender documents from the Portal: <https://etenders.hry.nic.in>

1. Date and Time of making payment of tender fee, earnest money deposit (EMD) and e-service fee is as under:

A	Online submission of EMD, Tender fee & e-Service Fee Option-1: Through Net Banking and Debit card	On or before last date of submission of Technical Bids upto 12:00 Noon
B	Online submission of EMD Option-2: Through RTGS/ NEFT- <i>(In case of above, the bidder has to pay Tender fee & e-Service fee Through Net Banking and Debit card as per the given date & time schedule)</i>	On or before 01.07.2020 Upto 02:00 P.M.

2. As the Bids are to be submitted online and are required to be encrypted and digitally signed, the Bidders are advised to obtain Digital Signature Certificate (DSC) at the earliest. For obtaining Digital Certificate, the Bidders should follow Point No.- 2 under “Instructions to bidder on Electronic Tendering System” and available at the link: <https://etenders.hry.nic.in>
3. The Bidders shall have to pay for the Tender Documents Fee, EMD Fees & e-Service Fee online by using the service of secure electronic payment gateway. The secure electronic payments gateway is an online interface between bidders and online payment authorization networks.
4. The bidders must have Net Banking account in order to pay Tender Document Fee and e-Service Fee.
5. **Payment of Tender Fee:-** The payment for the Tender Document Fee shall be made by the interested bidder online directly through Net Banking with the available Banks at e-GRAS e-Payment Gateway.
6. **Payment of e-Service Fee:-** E-Service Fee payment shall be made separately by the interested bidders/ contractors online directly through Net Banking Account.
7. **Payment of EMD:-** The payment of EMD can be made through Net Banking or RTGS/ NEFT as per details at Para-3 above. In this regard please refer to ‘Online Payment Guideline’ available at the link: <https://etenders.hry.nic.in>
8. Intending bidders will be mandatorily required to sign-up online (create user account) on the website <https://etenders.hry.nic.in> to be eligible to participate in the e-Tender. In case the intended bidder fails to pay EMD fee under the stipulated time frame, he/she shall not be allowed to submit his/ her bids for the respective event/ Tenders.
9. In case of payment of EMD through RTGS/ NEFT, the interested bidders must remit the funds at least T+1 working day (Transaction + One Day) in advance i.e. on or before 01.07.2020 upto 2.00 P.M; and make payment via RTGS/NEFT to the beneficiary account number specified under the online generated challan. The

intended bidder/ Agency thereafter will be able to successfully verify their payment online, and submit their bids on or before the expiry date & time of the respective events/ Tenders at <https://etenders.hry.nic.in>

10. However, the details of the EMD, Tender document Fee & E - Service Fee are required to be filled/ provided at the time of online Bid Preparation.
11. Online Technical Envelope—Reference details of the Earnest Money Deposit, Tender Document Fee & e - Service Fee instrument and scanned copies of supporting documents and QR/technical criteria with proper index and page numbering on all the documents have to be provided as per **Annexure-IA** of this document.
12. If the tenders are cancelled or recalled on any grounds, the Tender Document Fee and e-Service Fee will not be refunded to the bidder.

B. Brief Description of Procuring/ Rate Contract item:

Sr. No.	Description of Stores	Quantity/ Value of Rate Contract	Place of Delivery
1	Supply, installation and commissioning of LED Based Solar Home System for Anganwari Centres of the Haryana State with five years warranty of complete system.	On Annual Rate Contract basis (Approx. 20938 nos.- Estimated Value of Rs. 4501.67 Lakhs)	Anganwari centres in Haryana

The detailed technical specification/ description of the above stores are available at **Annexure-I** of this document.

C. Specific Terms & Condition/ Eligibility Criteria related to above Store:

1. The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto or proprietary/partnership firm. A copy of certificate of incorporation shall be furnished along with the bid in support of above.
2. Bidder should be registered manufacturer of Solar Module or Battery to be used in the quoted item and bidder will submit tie-up certificate for remaining major component/s from the Original manufacturer of the component along with Test report of the complete system in his name issued by any of the MNRE / BIS /IEC/ NABL accredited laboratory on or after 01.04.2017. Bid without valid test report from MNRE / BIS /IEC/ NABL accredited laboratory will be rejected out rightly.
3. The manufacturing firm should have a valid ISO 9001:2015 Certificate in the field of quoted item and copy of valid ISO 9001:2015 Certificate must be attached with offer.
4. Bidder should have not been debarred/blacklisted by any Govt. Deptt's / organization/ PSU's / institutions/ agencies/ autonomous Organizations.
Submit a Affidavit on non judicial stamp paper duly attested by the notary.

5. The Bidder should have valid GST registration certificate of the billing state. A copy of which should be enclosed.
6. The Successful Bidder shall be required to establish at least one Service Centre at Divisional Level in their area of operation in Haryana. The successful bidder should maintain the inventory of required spare parts at the service centre(s).
7. Past performance of the firms shall be considered while evaluating the technical bids. If the bidder has poor record for providing after sales services to the Haryana during last five years than their bid may be rejected out rightly.
8. The bidder should have minimum average annual turnover 30% of the estimated bid value in the last three years, ending 31st March of the previous Financial Year i.e. upto 2018-19.
9. Experience and Past Performance of having successfully completed similar contracts i.e. Solar Home Light System/Solar Street Light costing not less than the amount equal to 40% of the estimated value of the bid quantity, during last three years ending 31st March of the previous Financial year (2018-19), to Govt. / Semi Govt. Organizations.
10. Bidders should provide an undertaking that after the expiry of warranty period, they will provide necessary spare and services for the maintenance of items up to the period of additional five years.
11. Bidder is required to submit a sample of the quoted product along with tender. The sample should be tested from MNRE/BIS/IEC/NABL accredited laboratory. Noncompliance shall in rejection of the bid. **The tenderers should deposit the sample with the Sample Assistant in SCO No. 37, (Back side Basement) Sector-11, Panchkula on 03.07.2020 from 02.30 P.M. to 04:30 P.M. Old/belated sample shall not be considered.**
12. Technical Catalogue of the product is required to be submitted along with the bid & same should be available on bidder's website.
13. Rate Contract will be made / valid for one year from the date of issue.
14. The rates quoted should be inclusive of GST and all other charges etc. (whichever applicable).
15. **Delivery period (includes supply, installation & commissioning):-** Three months from the date of placement of work order.
16. **Warranty:** - Five years from the date of commissioning (including batteries) and PV module(s) will be warranted for a minimum period of 25 years from the date of supply. PV modules used in Solar Home system must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
17. **Payment :-**

- I. 60% payment will be released within one month time on submission of material receipt of physical delivery of inspected/ accepted goods in physically good condition at consignee go down on submission of bill of material supported by material receipt duly signed by PO/APO of the department/ office.
- II. 29% will be released after satisfactory installation / working of the items on submission of joint commissioning report (JCR) in the attached format duly signed by the user & PO/APO of the consignee department/ office with countersignature of head of the office.
- III. 10% payment to be released @2% at the end of each year for 5 years, on submission of satisfactory performance report of the systems duly certified by the concerned district officer and user OR The said amount may be released against the submission of bank guarantee of equal amount valid for five years from commissioning of the plant.
- IV. 1% will be released after 25 years of satisfactory performance report of Solar Module.

18. Material shall be strictly as per DNIT specifications/requirement. If there is any left out specification, the same shall be considered as per the latest specification/requirements applicable as per BIS/International Standards. The bidders are advised to be well conversant with these specifications/requirements for their compliance.

19. The make of major components of the system i.e. Solar module, Solar Charger, Battery, Ceiling Fan and Luminaries (bulb/batten) should be strictly as per the make mentioned in the test report and sample submitted with the bid. Accordingly, the same should be mentioned in the technical bid.

20. In case of any complaint in the working of the items during the warranty period, the firm shall attend the same within 24 hours from the time of logging of first complaint / call by the consignee and the items must be repaired within three days thereafter. The complaints would be logged by the Department officers by e-mail/ fax in order to keep the proper delivery records. Further in case of failure to do so, penalty @ 0.1 % of the system cost per day (subject to max. 10% of the cost) after expiry of 72 hours shall be imposed. If the firm does not attend the complaint within the max penalty period then the system may be got repaired/ replaced from the performance security amount. In case whole performance security amount is utilized and complaint/s are still pending then an online / registered notice will be sent to the firm to attend the complaint and if failed to attend the complaint within 7 days then firm may be blacklisted and a legal proceedings may be initiated against the firm for breach the agreement.

Note: The format of the Technical Bid/ Index for the Technical Bid Documents will be as per Annexure-IA of this document and the bidders are requested to upload their Technical Bids on the Portal with index as provided in Annexure-IA.

In case of non submission of required Eligibility Documents as at Annexure-IA, the bid of the firm will not be considered and no further chance will be given for the submission of these documents. However, clarification, if any, of already submitted documents may be obtained in case required as per the rules.

D. **Standard Terms and Conditions** (wherever applicable these terms & conditions will overrule the specific terms and conditions as at Para 'C' above):-

1. All the annexure from 'Annexure-III to XIII' including 'Schedule-B of Supply' are part of this DNIT and are available as 'Tender Forms' at Link

http://dsndharyana.gov.in/Portals/0/documents/Tender%20Forms%20DSnD_11042019.zip?ver=2019-06-20-103057-847 or the same can be downloaded from home page of <http://dsndharyana.gov.in/en-us/> under 'Downloads' > 'Tender Form'.

2. **Procurement of Stores through Rate Contract System:-**

Where ever Government considers expedient that more than one supplier/ manufacturers should be kept on rate contract, it may so decide on case to case basis subject to conditions available at **Annexure 'III'**.

3. **EMD:-**

The firms are required to deposit Earnest Money as indicated above failing which the tenders are liable to be rejected. Manufacturing Micro & Small Enterprises (MSEs) of the State, Central or Haryana Public Sector Enterprises, "approved sources" as declared by the Industries Department, Haryana, and Startups/First Generation Entrepreneurs are exempt from the deposit of EMD. The condition at Sr. No. 7 of "Instructions to Tenderers of the TENDER FORM" shall be deemed to be amended to this extent as per provisions contained at Para 13 (i) (ii) of G.O. No.2/2/2010-4I-BII of dated 28.05.2010 and Para no 3(A)(ii) of G.O. No. 2/2/2016-4I BII (1) of dated 20.10.2016 (or as amended from time to time in this regard)

The condition at Sr. No. 6 of Annexure "A" - "Conditions with TENDER FORM" shall be deemed to be cancelled. (amendments with effect from may 28, 2010)

4. **Performance Security:**

The successful tenderer shall be required to deposit Performance Security Deposit as per provisions contained in Govt. of Haryana G.O. No. 2/2/2016-4I BII(2) dated 20-10-2016 as under:-

Sr. No.	Type of Firm/Enterprises	Value of Performance Security Deposit
1	Haryana based firms:- (i) # Haryana Based Micro and Small Enterprises (MSEs) (ii) Haryana based other firms/enterprises	(i) @0.2% of the order value or estimated value of Rate Contract (where maximum value of rate contract (RC) is indicated, it will be on the basis of the same) (ii) @2% of the order value or estimated value of Rate Contract (where maximum value of rate contract (RC) is indicated, it will be on the basis of the same)
2	Other States/ UTs based firms	@5% of the order value or estimated value of Rate Contract (where maximum value of rate contract (RC) is indicated, it will be on the basis of the same)

Haryana based MSEs will be eligible for performance security deposit @ 0.2% who have filed Entrepreneurs Memorandum (Micro or Small Enterprise category) in the Industries Department Haryana and who participate directly in the tendered/quoted items and offering to supply the entire quoted quantity manufactured from their own Haryana based unit.

The performance security in excess of the EMD already deposited can be submitted in the shape of Demand Draft/Call Deposit Receipt/Banker's Cheque or in the shape of equivalent Bank Guarantee of any scheduled bank with branch in Chandigarh/ Panchkula. The condition at Sr. No. 8 of "Instructions to Tenderers of the TENDER FORM" shall be deemed to be amended to this extent as per provisions contained G.O. No. 2/2/2016-4I II(2) dated 20-10-2016 as at **Annexure IV** (or as amended from time to time in this regard)

5. **Price Fall Clause:**

Price fall clause will be as per condition no. 15 of "General Conditions of Supply" as available at **Annexure-V**. The same is that the price quoted in the tender/quotation or approved in the Rate Contract for the stores shall not exceed

in any way the lowest price at which the tenderer quote for the supply the stores of identical description to DGS&D, New Delhi/ State Government Institutions/Undertakings/any other person during the delivery period/currency period of the rate contract. If, at any time during the delivery period/currency period, the successful tenderer reduces the rates/sale price of the quoted stores to any person at the price lower than the price chargeable under the supply order/ rate contract, the tenderers should forthwith notify such reduction and inform this office and the price payable under the supply order/contract for the stores supplied after the date of coming into force of such reduction of the rates shall stand correspondingly reduced to that level. The successful tenderers shall promptly notify the reduction of rates to this office as well as to the concerned Indenting Officer/ Consignees. The tenderer shall also give a certificate on their bills that the rates charged by them are not in any way higher to those quoted by them to the DGS&D, New Delhi and other State Government etc., during the corresponding period. The Indenting Officer shall be required to ensure that requisite certificate is given by the concerned firm on the bills before releasing their payments.

6. **Penalty to firm on Delay in delivery:** Should the contractor fail to deliver or dispatch any consignment within the period prescribed for such delivery or dispatch stipulated in the supply order, the delayed consignment will be subject to 2% penalty per consignment per month recoverable on the value of the stores supplied. The other details will be as per provision contained in Sr. No. 14 of "Schedule-'B' Condition of Contract".
7. The bidders are required to quote the basic rates, the delivery/ transportation costs/ applicable GST and duties etc, and the place of billing for the supply of stores clearly and separately. The bidders are required to intimate the place of billing.
8. **Penalty Clause for Department/ Govt. Agencies for delay in Payment**
Delay in payments to the suppliers beyond the stipulated credit period indicated in the supply order, unless supported by cogent reasons and approved by a higher authority, will attract penal interest on the defaulting amount @ Rs. 25/- per rupees one lakh per day of delay beyond the stipulated credit period. Non provision of adequate budget will be no ground for delay in payments to the supplier. This is as per provisions contained at Para 17 of G.O. No.2/2/2010-4I-BII of dated 28.05.2010 (or as amended from time to time in this regard).
9. **Negotiation of Rates**
Regarding negotiations of rates, policy issued by the State Government vide G.O. No.2/2/2010-4-IB-II dated 18.06.2013 (**Annexure-VI**), G.O. No.2/2/2010-4-IB-II dated 16.06.2014 (**Annexure-VII**), G.O. No.2/2/2010-4-IB-II dated 09.02.2015 (**Annexure-VIII**) will be applicable.
10. The State Government has notified "Haryana State Public Procurement Policy for MSME -2016" vide G.O. No. 2/2/2016-4I BII(1) dated 20-10-2016 (**Annexure-IX**) and amendment vide G.O. No. 2/2/2016-4IB-II dated 11.12.2019 (**Annexure-X**) which will be applicable in respect of concessions to Haryana based MSMEs and KVIs. For claiming the relevant concession/s like Tender Fee, Earnest Money Deposit (EMD), Turnover, Exemption in respect of Past Performance & Experience, Purchase Preference and Performance Security, the bidders are required to submit the documentary proof from Government authorities showing that they come under Haryana based manufacturing MSME/KVI units as the case may be e.g. *Entrepreneurs/Udhayog Aadhar Memoranda in Haryana in bidder's name and further subject to fulfillment of eligibility criteria as provided in the said Policy of 2016.
11. **Concession/benefits to Startups/First Generation Entrepreneurs of State:**

The State Government has notified “Concession/benefits in Public Procurement to Startups/First Generation Entrepreneurs of State” issued vide G.O. No. 2/2/2016-4I B-II dated 03.01.2019 (**Annexure-XII**) which will be applicable in respect of concessions to Startups/First Generation Entrepreneurs of State. For claiming the relevant concession/s like Tender Fee, Earnest Money Deposit (EMD), Turnover, Exemption in respect of Past Performance & Experience, Purchase Preference and Performance Security, the bidders are required to submit the documentary proof as per the said policy.

12. In case of evidence of cartel formation by the bidder(s), the EMD is liable to be forfeited along with other actions as are permissible to Government like filing complaints with the Competition Commission of India and/ or other appropriate forums.

13. **Purchase Preferences for approved Sources**

The Director, Supplies & Disposals, Haryana, reserves the right to allow purchase preference to the approved sources, including Central or Haryana State Public Sector Undertakings/Enterprises, provided that such approved source takes part in the bidding process and the quoted prices of the approved source is within 10% of the lowest acceptable price, other things being equal. However, such purchase preference would be available to the approved source only at the lowest acceptable price. The latest list of Approved Source is contained in Government Order no. 6/03/2007-4IB-II dated: 14-02-2008 of the Industries Department and is subject to further amendment from time to time.

14. **Penalty clause for rejected samples/ material offered by the Bidder:**

In case, the material offered for inspection by the firm fails to meet the specifications stipulated in NIT/Order/Contract and the samples are rejected by the Inspecting Committee, the Indenting Department will have the right to levy a penalty at 0.1% of the total order value. In case, the material offered for inspection fails during the 2nd inspection also, the Indenting Department will have the right to increase the penalty to 0.25% of the total order value. In case, the material offered fails during the 3rd and final inspection also, the firm will be liable for penal action including forfeiture of security, risk purchase, debarring/ blacklisting in future, and no further opportunity for inspection would be provided to the supplier firm.

15. **Grievance Redressal Mechanism for dealing with the representations/ complaints/ letters of the participating bidders/ firms:**

A time bound Grievance Redressal Mechanism for dealing with the representations/ complaints/ letters of the participating bidders/ firms in the tendering process in the State Public Procurement will be governed by State Government Policy issued vide G.O No.2/2/2016-4I-B II of dated 25.07.2016 (**Annexure-XI**). All the bidders/ firms who want to make any representation/ complaint against any issue related to their technical scrutiny of the bids may do the same within 5 working days (up to 05:00 P.M. of the Fifth Working day) of the date of issue of letter/ intimation regarding their **As per NIT/ Not as per NIT status**. They have to ensure that their communication is delivered/ reached within 5 working days and delay in postal will not be counted as a valid reason. No representation/ complaint in whatsoever manner from the bidders/ firms will be entertained after the opening of Financial Bid.

16. **Arbitration Clause**

The Arbitration if any will be decided as per the provision contained at Sr. No.18 of “Schedule ‘B’ Conditions of Contract”

17. **Jurisdiction**

All disputes will be settled within the jurisdiction of the Head Quarters of Director, Supplies & Disposals, Haryana at Panchkula.

E. OTHER TERMS AND CONDITIONS

1. The firms are required to mention bifurcation of their rates showing the detail of Basic Rates, GST, Duties etc. in their bid. In case, the supplies are delayed by the firm beyond the stipulated delivery period & there has been any upward revision in the rates of GST/ Duties ON THE CONTRACTED ITEM, no such increase will be allowed. However, if there has been any reduction in GST/Duties, the same will be availed. No variation in GST/ Duties on raw material will be applicable.
2. All documents to be submitted by the tenderers with their offer should be self attested in case the same are copies of original documents.
3. The Earnest money of the tenderers will be forfeited to Govt. account and blacklisting/ debarring besides other penal action, if they withdraw their offer/ rates or modify the terms & conditions of the same at any time during the validity of their offer before acceptance.
4. The Bid i.e. Technical Bid as well as Financial Bid is to be submitted online on web portal <https://etenders.gov.in/eprocure/app>. The Technical Bids uploaded on the portal should have proper indexing and page numbering on all the documents forming the Technical bid. However, the firms have option to submit the supporting documents as required to be supported along with Technical Bid either in on-line mode along with their Technical Bids or in offline mode in physical form to the office of DS&D by due date and time. In case supporting documents are to be supplied in physical mode, then it should be so specified in their Technical Bid and the supporting document must be deposited in the office of Supplies & Disposals, Haryana before the due date & time of opening of Technical Bids.
5. The Financial bid/s of only those bidders/ items will be opened who qualify on the basis of their Technical Bids. The date & time of opening of the financial bids will be intimated in the due course.
6. The offer without prescribed earnest Money, tender Fee & E-Service fee is liable to be summarily rejected. The deficiency in the remaining documents and tender requirement can be made subject to the rules in this regard and decision by Director, Supplies & Disposals, Haryana, Panchkula
7. The quantity of Stores can be increased or decreased.
8. Notwithstanding anything contained in the Tender, Supplies & Disposals Department Haryana reserves the right to accept or reject any Bid, and to cancel the bid process and reject the Tender, at any time, without thereby incurring any liability to the affected Bidder or Bidders and without any obligation to inform the participating/affected Bidder (s) the reason for such decision.
9. **Other terms & conditions as contained in various Annexure/ Documents as available under the folder "TENDER FORMS" as available at the link http://dsndharyana.gov.in/Portals/0/documents/Tender%20Forms%20DSnD_11042019.zip?ver=2019-06-20-103057-847 or the same can be downloaded from home page of <http://dsndharyana.gov.in/en-us/> under 'Downloads' > 'Tender Form' form part of this DNIT.**
10. **Instructions to bidder on Electronic Tendering System.**
 Registration of bidders on e-Procurement Portal, Information about Digital Certificate, Instructions about Online Payment of Tender Document fee/e-Service Fee/Earnest Money, Important Instructions & Help manual for online bidding and other General issues option available on Home page of NIC e-procurement portal i.e <https://etenders.hry.nic.in>.
 In case bidders need any clarifications or if training required participating in online tenders they can contact office Timings of Help-desk support & Contract Details:-
 The detail may be seen under " Contract US" option available on Home Page of NIC e-Procurement portal i.e <https://etenders.hry.nic.in>.
 For support related to Haryana Tenders in addition to Helpdesk:-
 In addition, For support related to Haryana Tenders in addition to helpdesk you may also contract to following:-
 E -mail: eproc.nichry@yahoo.com
 Desk: 0172-2700275

Assistant Director,
For & on behalf of Governor of Haryana.

The detailed Specifications of the Store items as mentioned in Para B of the Schedule-A/NIT are as under:-

**TECHNICAL SPECIFICATIONS
FOR
150 WATT SOLAR BASED HOME SYSTEMS (DC MODEL)**

- SPV Module (with Module Mounting Structure) :150 Wp under STC
- Battery : 12.8V, 100Ah; Lithium Ferro phosphate (LiFePo4)
- Solar Charge Controller: 12V, 12-15 A with LCD display
- Load :
 - ✓ 3 nos. of White Light Emitting Diode (W-LED) Luminaries (max. 6.0 Watts each)
 - ✓ 2 no. of D.C. Ceiling Fan of 48 Inch/1200 mm (22 Watts \pm 10%) (BLDC type)
 - ✓ Provision for 2 ports for operating the radio and USB for mobile phone charging (5V, 1A)

BROAD PERFORMANCE SPECIFICATIONS

PV module	150Wp under STC (with Module Mounting Structure)
Light source	<ul style="list-style-type: none"> • 3 Nos. of White Light Emitting Diode (Bulb/Batten) Luminaire (max. 6.0 Watts each). The wattage of the LED used in the luminaire should be such that the total input power consumption by the luminaire is not more than 6 W (including the LED driver consumption). The LED lights should meet the latest BIS specification (IS 10322 (Part 5/Sec I):2012)
Light Output	<ul style="list-style-type: none"> • 3 nos. of 6W, LED Luminaire(Bulb/Batten): Minimum 32 Lux for each luminaire when measured from a height of 2.5 meter in an area of 2.5 meter diameter. The light should be glaze free and should not have any shadow band. The uniformity of light should not be less than 0.7
Loads in addition to the Lights	<ol style="list-style-type: none"> 1. Two 48 inch/1200 mm DC ceiling Fan (22.0 Watt \pm 10%), BLDC type 2. Provision for 2 ports for operating the radio and USB for mobile phone charging (5V, 1A)
Battery	Lithium Ferro phosphate (LiFePo4)
Charge controller	<p>The charge controller should be of MPPT type and its PV charging efficiency should be >90%</p> <p>The charge control system must have 2 separate ports for connecting the various loads. It should be mentioned on the Charge Controller that these ports are for radio operation and mobile charging only.</p>
Working temperature	0 ⁰ - 45 ⁰ C

TECHNICAL DETAILS

PV MODULE (S)

- I. Indigenously manufactured PV modules and cells should be used. The Solar Module must be comply with MNRE OM of even No. dated 02.01.2019 for enlistment under “Approved Models and Manufacturers of Solar Photovoltaic Modules (Requirement of Compulsory Registration) order,2019 and its subsequent amendments at the time of supply.

- II. The PV modules should be made up of crystalline silicon solar cells and must have a certificate of testing confirming to BIS standards IS 14286 from approved laboratory
- III. The module efficiency should not be less than 15%.
- IV. The terminal box on the module should have a provision for opening, for replacing the cable, if required.
- V. There should be a Name Plate fixed inside the module which will give:
 - a. Name of the Manufacturer or Distinctive Logo.
 - b. Model Number
 - c. Serial Number
 - d. Year of manufacture
 - e. HAREDA logo (which is available on-line)
 - f. Made in India

BATTERY

- I. The battery should be Lithium Ferro phosphate having Nominal capacity of 100Ah and Nominal voltage of 12.8V. The minimum capacity of individual cell shall be 3.2V 20Ah and voltage range of 10V to 14.6 V.
- II. The Lithium Phosphate battery should have appropriate Battery Management System (BMS) to ensure the proper charging and discharging of each cell of battery with proper protection of battery when temperature is reaching beyond permissible limit.
- II. 90 % of the rated capacity of the battery should be between fully charged & load cut off conditions.
- III. Battery should have a certificate of testing confirming to BIS standards IS16046:(Part 2):2018 from approved laboratory

LIGHT SOURCE

- (i) The luminaries (Bulb/Batten) should use white LEDs. The colour temperature of white LEDs should be in the range of 5500° K - 6500°K. Use of LEDs which emit ultraviolet light will not be permitted.
- (ii) The light output from the white LED light source should be constant through-out the operation of the lights.
- (iii) The lamps should be housed in an assembly suitable for indoor use with an appropriate heat sink to dissipate the heat generated by LEDs during operation. The temperature of LED should not increase more than 20° above room temperature. This condition should be complied for 5 hours of operation of the lamp at a stretch while battery operating at any voltage between the loads disconnect and the charge regulation set point.
- (iv) The luminaries must use the optics and diffuser in order to have uniform and glaze free light.
- (v) The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of white LEDs used in the lighting system must be furnished along with the system.
- (vi) All Luminaries should have ON/OFF switch and fuse.

FAN

The ceiling fan should be 12 volt DC operated with following minimum requirement and the registered manufacturer of the fan should have a valid test report from any of the BIS/NABL/Govt. approved test laboratory for the same:

- i. The fan should be 12V DC operated and ceiling type of size 48 inch/1200 mm
- ii. Type of motor: BLDC motor
- iii. Rated voltage: 12 Volt
- iv. Operating Voltage range: 9 Volt to 15 volt
- v. Blade diameter : 48 inch/ 1200 mm
- vi. Blade: Three leaves Aluminum Powder Coated
- vii. Power consumption - 22 Watt ($\pm 10\%$)
- viii. Speed : 3 Electronically controlled

ELECTRONICS

- (i) The charge controller should be of MPPT type
- (ii) Electronics should operate at 12 V and should have adequate temperature compensation arrangement for proper charging of the battery throughout the year.
- (iii) Necessary lengths of wires / cables, switches and fuses should be provided.
- (iv) The system should have separate ports for connecting each load.
- (v) The system should have 2 USB ports for connecting loads.
- (vi) The idle current i.e. when there is no load and no display, should be less than 40 mA respectively.
- (vii) The voltage drop from module terminals to the battery terminals should not exceed 3.0 volts including the dropage across the diode and the cable when measured at maximum charging current.
- (viii) The PCB containing the electronics should be capable of solder free installation and replacement.

ELECTRONICS PROTECTION

- (i) Adequate protection is to be incorporated under “No Load” condition, e.g. when the lamps and other loads are removed and the system is switched ON.
- (ii) The system should have protection against battery overcharge, deep discharge condition.
- (iii) Load reconnect should be provided at $>12.5V$ and low cut-off should be at $11.3 V (\pm 0.2V)$.
- (iv) Adequate protection should be provided against battery reverse polarity.
- (v) Fuses should be provided to protect against short circuit conditions.
- (vi) Protection for reverse flow of current through the PV module(s) should be provided.

MECHANICAL COMPONENTS

- (i) Corrosion resistant frame structure should be provided to hold the SPV module.
- (ii) The frame structure should have provision to adjust its angle of inclination to the horizontal, so that it can be installed at the specified tilt angle.
- (iii) Light source should be either for wall mounted or ceiling mounted or can be hung from the ceiling in a stable manner, as per site requirements.
- (iv) A vented plastic/ wooden/ metallic box with acid proof corrosion resistant paint for housing the storage battery indoors should be provided.

INSTALLATION OF SYSTEM

Modules shall be mounted on supporting structure made out of galvanized MS angle of required structural strength (hot dip/galvanized) either on the roof top or at ground as per the site requirement

1. The size of M.S. (Galvanized) angle should be 32 x 32 x 3 mm. The structures are to be fitted either on the roof top or at ground properly and south faced. It should withstand wind speed up to 120 Km/hour.
2. Foundation - The legs of the structure made with hot dip GI angles will be fixed and grouted in the RCC foundation columns of size atleast 150mmx150mmx100mm made with 1:2:4 cement concrete. While making foundation design due consideration will be given to weight of module assembly and maximum wind speed of 120 km per hour.
3. The work includes necessary excavation, concreting, back filling, shoring and shuttering etc.
4. Any minor items which are not specifically included in the scope of supply but required for proper installation and efficient operation of the SPV systems, is to be provided by the manufacturer as per standards.

ELECTRIC CABLE

- (i) The electric cable used to connect module to charge controller and charge controller to battery shall be twin core PVC insulated water and UV resistance copper cable of minimum size of 4.0 mm². Cable shall meet IS 1554 / 694 Part 1:1988 & shall be of 650 V/1.1 kV.
- (ii) Other cables of appropriate size should be used to keep electrical losses to a bare minimum.
- (iii) All wiring should be in a proper conduit or capping case. Wire should not be hanging loose.
- (iv) Wiring should be joint less and switches & fan regulator should be of appropriate value and suitable for DC operation.

INDICATORS

The system should have LCD display to indicate charging under progress, load cut-off etc.

QUALITY AND WARRANTY

- (i) The Solar home system including Battery will be warranted for a period of five years from the date of supply.
- (ii) The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. PV modules used in Solar Home System must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- (iii) The Warranty Card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary

OPERATION AND MAINTENANCE MANUAL

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar Home System. The following minimum details must be provided in the Manual:

- Basic principles of Photovoltaic.
- A small write-up (with a block diagram) on Solar Home System - its components, PV module, battery, electronics and luminaire and expected performance.
- Significance of indicators
- Type, Model number, voltage & capacity of the battery, used in the system.
- The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of W-LEDs used in the lighting system must be indicated in the manual.

- Clear instructions about mounting of PV module(s).
- Clear instructions on regular maintenance and trouble shooting of the Solar Home System.
- DO's and DONT's.
- Name and address of the contact person for repair and maintenance.

Technical Bid format/ Index for the Technical Bid documents

Sr. No.	Name of Document	Status of Submission (Yes/No)	Page Number as per numbering given to the technical bid documents uploaded on the portal
1	Submission of online payments i.e Earnest Money Deposit, Tender Document Fee & e - Service Fee and scanned copies of supporting documents.	Yes/ No	
2	All the documents submitted by the bidder as part of its Technical Bid are attested by the signing authority of the bidder	Yes/ No	
3	An undertaking by the bidding firm in reference to acceptance of all the terms & conditions of the Schedule-A/ DNIT	Yes/ No	
4	Submit a signed copy of DNIT	Yes/ No	
5	The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto or proprietary/partnership firm. A copy of certificate of incorporation shall be furnished along with the bid in support of above. Submit a copy of certificate of incorporation under the Companies Act, 1956 or 2013.	Yes/ No	
6	Bidder should be registered manufacturer of Solar Module or Battery to be used in the quoted item and bidder will submit tie-up certificate for remaining major component/s from the Original manufacturer of the component along with Test report of the complete system in his name issued by any of the MNRE / BIS /IEC/ NABL accredited laboratory on or after 01.04.2017. Bid without valid test report from MNRE / BIS /IEC/ NABL accredited laboratory will be rejected out rightly. Submit a copy of Manufacturing proof of Solar Module or Battery. Also submit a. Tie-up certificate from original manufacturer; b. Test report of the quoted item issued by any of the MNRE/BIS/NABL accredited	Yes/ No	

	laboratory on or after 01.04.2017;		
7	The manufacturing firm should have a valid ISO 9001:2015 Certificate in the field of quoted item. Submit a copy of valid ISO 9001:2015 Certificate	Yes/ No	
8	Bidder should have not been debarred/blacklisted by any Govt. Deptt's / organization/ PSU's / institutions/ agencies/ autonomous Organizations. Submit a Affidavit on non judicial stamp paper duly attested by the notary stating that the bidder has not been blacklisted/debarred by any Govt. Deptt's / organization/ PSU's / institutions/ agencies/ autonomous Organizations.	Yes/ No	
9	The Bidder should have valid GST registration certificate of the billing state. Submit a copy of GST no and PAN no.	Yes/ No	
10	The Successful Bidder shall be required to establish at least one Service Centre at Divisional Level in their area of operation in Haryana. The successful bidder should maintain the inventory of required spare parts at the service centre(s). Submit undertaking.	Yes/ No	
11	The bidder should have minimum average annual turnover 30% of the estimated bid value in the last three years, ending 31 st March of the previous Financial Year i.e. upto 2018-19. Submit last 3 years turnover certificate duly certified by Chartered Accountant	Yes/ No	
12	Experience and Past Performance of having successfully completed similar contracts i.e. Solar Home Light System/Solar Street Light costing not less than the amount equal to 40% of the estimated value of the bid quantity, during last three years ending 31 st March of the previous Financial year (2018-19), to Govt. / Semi Govt. Organizations. Submit proof/ certificate of experience and past Performance of having successfully completed similar contracts i.e. Solar Home Light System/ Solar Street Light during last three years ending 31 st March of the previous	Yes/ No	

	Financial year (2018-19) to Govt. / Semi Govt. Organizations. The supply orders and performance certificate of the items previously supplied , installted and Commissioned for the relevant department.		
13	Bidders should provide an undertaking that after the expiry of warranty period, they will provide necessary spare and services for the maintenance of items up to the period of additional five years. Submit Undertaking in this regard.	Yes/ No	
14	Material shall be strictly as per DNIT specifications/requirement. If there is any left out specification, the same shall be considered as per the latest specification/requirements applicable as per BIS/International Standards. The bidders are advised to be well conversant with these specifications/requirements for their compliance. Submit undertaking	Yes/ No	
15	The make of major components of the system i.e. Solar module, Solar Charger, Battery, Ceiling Fan and Luminaries (bulb/batten) should be strictly as per the make mentioned in the test report and sample submitted with the bid. Accordingly, the same should be mentioned in the technical bid. Submit compliance report	Yes/ No	
16	Acceptance of warranty clause as per NIT	Yes/ No	
17	Acceptance of Delivery period as per NIT	Yes/ No	
18	Acceptance of payment terms as per NIT	Yes/ No	
19	Acceptance of Penalty clause	Yes/ No	