

राष्ट्रीय न्यायालियक विज्ञान विश्वविद्यालय (राष्ट्रीय महत्त्व का संस्थान, गृह मंत्रालय, भारत सरकार)

National Forensic Sciences University

(An Institution of National Importance under Ministry of Home Affairs, Government of India)



EXPRESSION OF INTEREST FOR GRID CONNECTED SOLAR ROOF TOP PLANT

A. SCOPE OF WORK:

The location and site details for the proposed Grid Connected approx 1000 Kilo Watt Solar Roof Top Plant on CAPEX model - Bifacial Crystline Model:

Address: National Forensic Sciences University, Gandhinagar

Sector 9, Postal Pin:- 382007

Location: All building Block Roof Top

NFSU, Gandhinagar intends to develop Grid Connected 1000 Kilo Watt Solar Roof Top Plant for which the requisits space in roof top will be provided by the Institute. The institute is desirous of drown power from the CAPEX model - Bifacial Crystline Model.

The vendors should visit the site and make an assessment of the job before making the presentation of their solutions based on the availability of the space.

B. ELIGIBILITY CRITERIA:

- a) Minimum Five years experience in the field of design, supply, and installation. testing and commissioning and operation of one 100 kilo watt plant or two 75 Kilo watt plant or three 50 kilo watt soler power plant till date under **Bifacial Crystaline Model** and completion/ ongoing work certificate in respect of similar kind of work in last one year.
- b) Only manufacturer(s) or their sole authorized distributor/agent of Solar PV Module approved by Ministry of New and Renewable Energy (MNRE) are eligible to participate. Certificate of Manufacture or Authorized Distributor letter or Authorization letter from Original Equipment Manufacturer (OEM) must be submitted with the Eol documents.
- c) The bidder must be registered with the Ministry of New and Renewable Energy (MNRE)/State Nodal Agency (HIMURJA). Registration certificate to be provided along with the Eol documents.
- d) Bidder must have an average annual turnover of **Rs.50/- lakh** in any one of **the last 05 financial years.** Documentary evidence in the form of Audited Financial

Gandhinagar Campus& Headquarter

Sector-9, Gandhinagar Gujarat 382007 Ph:079-23977102/103 Fax: 079-23247465 Fmall:

Campus - director_gnr@nfsu.ac.in HQ - exe_registrar@nfsu.ac.in Delhi Campus
LNJN NICFS
Sector - 3
Outer Ring Road
Rohini, Delhi -110085
Ph:011-2752109, 27511580
Fax:011-27511571
Email: director_dc@nfsu.ac.in

Goa Campus Curti, Ponda Goa - 403401 Ph: 0832-2313036/3034 Email:director_goa@nfsu.ac.in Tripura Campus
VIP Road, Radhanagar
Adjacent to Buddha Mandir
Agartala-799001, Tripura
Ph: 0381-2310009/0006,
2312525/2828
Email: director_tripura@nfsu.ac.in

Bhopal Campus
NFSU, C/o CFSL,
Barkhera Bonder,
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Bhopal-462 030 (MP)
Ph:7552995271
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National Forensic Sciences University





Statement duly certified by chartered accountant must be submitted to substantiate the claim of the minimum annual turnover.

- e) Organizational chart indicating the qualification and experience of persons.
- f) List of work done in the field of Solar Power Plant in the last Five years, cleanly indicating relevant details like capacity and location, execution time, years to set up, scope of work and name and address of the owner.
- **g)** List of plants which can be visited by NFSU, Gandhinagar pursue to obtain feedback information about the owner.
- **h)** Solvency certificate minimum of Rs.50/-lakh in prescribed format (Annexure-III) is required from any schedule bank.
- i) Proof of registration of bidder under relevant law, such as companies act, and/or Shops and Establishment Act of Trade bicense from appropriate authority etc.
- j) All applicants should submit along with their Eol, copies of PAN card and GST registration certificate.
- k) A Certificate (Affidavit) to be signed by MD/CEO of the company that the Company has not debarred or blacklisted for any services, supplies or products dealing in, by any organizations or educational institute/University or State/Central Government and no criminal case/legal proceeding or industrial dispute is pending or contemplated against them.

C. MODE OF SUBMISSIONS

The Eol document with minimum details as mentioned above should be sent in a sealed envelopes super scribing "Expression of Interest for Grid Connected 1000 Watt Solar power plant on Bifacial Crystalline at NFSU, Gandhinagar " shall reach the office of the Registrar at the following address on or before 5:00 PM of 07/03/2024.

Campus Director National Forensic Sciences University, Sector 9, Gandhinagar, 382007

Gandhinagar Campusik Headquarter

Sector-9, Gandhinagar Gujarat 382007 Ph:079-23977102/103 Fax: 079-23247465

Email:
Campus - director_gnr@nfsu.ac.in
HQ - exe_registrar@nfsu.ac.in

Delhi Campus LNIN NICFS Sector - 3 Outer Ring Road Rohini, Delhi -110085 Ph:011-2752109, 27511580 Fax:011-27511571 Email: director_dc@nfsu.ac.in

Goa Campus Curti, Ponda Goa – 403401 Ph: 0832-2313036/3034 Emaîl:director_goa@nfsu.ac.in Tripura Campus
VIP Road, Radhanagar
Adjacent to Buddha Mandir
Agartala-799001, Tripura
Ph: 0381-2310009/0006,
2312525/2828
Email: director_tripura@nfsu.ac.in

Bhopal Campus
NFSU, C/o CFSL,
Barkhera Bonder,
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Bhopal-462 030 (MP)
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Email: director_bhopai@nfsu.ac.



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(राष्ट्रीय महत्त्व का संस्थान, गृह मंत्रालय, भारत सरकार)

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D. RIGHT OF ACCEPTANCE:

a) NFSU, Gandhinagar reserves the right to accept/reject/withdraw the bid without assigning any reason.

E. BUILDING NAME AND AREA:

- If you're planning to organize a pre-bid meeting, be sure to get in touch with a) the Assistant Registrar (Admin), Electrical Engineer, and Civil Engineer at The National Forensic Sciences University in Gandhinagar.
- Attached herewith is the annexure A. containing information about the b) available space in NFSU, Gandhinagar for the solar cooftop.

F. JURIDICTION:

In case of any dispute, the jurisdiction of Gandhinagar courts shall apply. a)

National Forensic Sciences University, Gandhinagar

<u> Annexure - A</u>

Sr. No.	Buildi	Area in Sq. meter			
1	Auditorium between aud	1371.547			
2	Admin Building And Adn	nin Lobby Terrace	1383.52		
3	IRD Building	Maliding Admin to IBS	1178.84		
4	IFS Seminar Building	Tobby	1392.49		
5	IBS Building	ЮООУ	1016.66		
6	Ballistic Range Center -	<u>1177.82</u>			
7	International Guest Hou	1040.46			
8	Training & Library Build	1446.36			
9	Canteen Building		901.15		
		Total area in Sq. meter	10908.847		

Campus Director

National Forensic Sciences University

Gandhinagar

Gandhinagar Campus& Headquarte Sector-9, Gandhinagar

Gujarat 382007 Ph:079-23977102/103 Fax: 079-23247465 Email:

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Goa Campus Curti, Ponda Goa - 403401 Ph: 0832-2313036/3034 Email:director_goa@nfsu.ac.in Tripura Campus VIP Road, Radhanagar Adjacent to Buddha Mandir Agartala-799001, Tripura Ph: 0381-2310009/0006, 2312525/2828 Email: director_tripura@nfsu.ac.in

Bhopal Campus NFSU, C/o CFSL, Barkhera Bonder, P. O. Balragarh Kalan, Bhopal-462 030 (MP) Ph:7552995271 Email: director_bhopal@nfsu.ac.



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Schedule of work

<u>Name of work</u>:- SITC of Grid interactive Roof Top Solar power Generation system at various buildings in NFSU, Gandhinagar.

Supply, Installation, Testing and Commissioning of ongrid Solar Photovoltaic Power Plant conforming to MNRE specifications as amended, consisting of Bifdal Crystalline silicon solar cells, net metering (Bi directional) facility, necessary protections, earthing, mounted on Aluminium/GI structure of suitable strength with following components complete as required: a) Power Conditioning Unit (PCU) of 350-800 V DC Input voltage range and 400 V AC, three phase, 4 wire, 50Hz +/- 2.5 Hz, output voltage suitable to generate AC Power with efficiency not less than 97%, total harmonic distortion less than 3% and suitable for ambient temperature from 0 to 50 degree C. The PCU shall adjust the voltage and frequency level to suit the Grid Voltage Frequency. b) Solar Photovoltaic Module of capacity 540 Wp or above, manufactured in India, conforming and suits tractional province of the conforming structure of the conforming systems must be warranted from the conforming structure of the conforming structure of the conforming structure of the conforming system complete with accessores. c) Data Monitoring System complete with accessores. d) Fixing of Array junction box & Mainfunction structure of the conforming structure of the c	Sr.No.	Description Of Items	Qty	Rate	Amount
a) Power Conditioning Unit (PCU) of 350-800 V DC Input voltage range and 400 V AC, three phase, 4 wire, 50Hz +/- 2.5 Hz, output voltage suitable to generate AC Power with efficiency not less than 97%, total harmonic distortion less than 3% and suitable for ambient temperature from 0 to 50 degree C. The PCU shall adjust the voltage and frequency level to suit the Grid Voltage Frequency. b) Solar Photovoltaic Module of calacity 540 Wp or above, manufactured in India, conforming to 15 14286/EC 61215, IS/IEC.61730-Part-1, IS/IEC 61730-Part-2, Solar Photovoltaic Module conversion efficiency shall not be less than 16.5%. PX modules used in solar power plants/ systems must be warranted fro-fittle coupting peak watt capacity, which should not be less than 16.5%. PX modules used in solar power plants/ systems must be warranted fro-fittle coupting peak watt capacity, which should not be less than 16.5%. PX modules used in solar power plants/ systems must be warranted fro-fittle coupting peak watt capacity, which should not be less than 16.5%. PX modules used in solar power plants, lugs and other accessories ett. as required d) Fixing of Array Junction box 8-Main junction pox with 2 gs protection and termination arrangement for incoming and outcoing capp along with glands, lugs and other accessories etc. as required e) Lightning and surge voltage protection. f) Connections in the connections by supplying 8 fixing required size control cables between sale productor 1.1 kV grade armoured power and control cables between sale productor 1.1 kV grade armoured power and control cables between sale productor 1.1 kV grade armoured power and control cables between sale productor 1.1 kV grade in following size DWC HDPE pipe ISI Marked, along with all accessories like socket, bend, couplers etc conforming to IS 14930, Part II complete with fitting and cutting, jointing etc direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc complete a	01	Photovoltaic Power Plant conforming to MNRE specifications as amended, consisting of Bifcial Crystalline silicon solar cells, net metering (Bi directional) facility, necessary protections, earthing, mounted on Aluminium/GI structure of suitable strength with following components			
b) Solar Photovoltaic Module of capacity 540 Wp or above, manufactured in India, conforming to IS 14286/EC 61215, IS/IEC 61730-Part-1, IS/IEC 61730-Part-2, Solar Photovoltaic Module conversion efficiency shall not be less than 16,5% PV modules used in solar power plants/ systems must be warranted for their output; peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years. c) Data Monitoring System complete with accessories d) Fixing of Array function box & Main function box with 12 Sprotection and termination arrangement for incoming and outpoing capte along with glands, lugs and other accessories etc. as required. e) Ughtning and surge voltage protection. f) Connections & Interconnections by supplying & fixing required size XLPE insulated 60 conductor 1.1 kV grade armoured power and control cables between solar gradules, main power cable to grid stupply PCU unit along with supplying 8 fixing or per sears (Taburel/constitutiugs accessories etc. as required Supplying and laying of following size DWC HDPE, pipe ISI Marked, along with all accessories like socket, bend, couplers etc conforming to IS 14930, Part II complete with fitting and cutting, jointing etc direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc complete as required Supplying and Laying One number 3 phase 95 sq. mm to 120 sq. mm PVC Insulated and PVC sheathed / XLPE aluminum armoured power cable of 1.1 kV grade of following size in the surface/ground/existing RCC/HUME/METAL plpe complete with testing / Commising etc as required		a) Power Conditioning Unit (PCU) of 350-800 V DC Input voltage range and 400 V AC, three phase, 4 wire, 50Hz +/- 2.5 Hz, output voltage suitable to generate AC Power with efficiency not less than 97%, total harmonic distortion less than 3% and suitable for ambient temperature from 0 to 50 degree C. The PCU shall adjust the voltage and frequency			
d) Fixing of Array junction box & Main Junction box With 12 65 protection and termination arrangement for incoming and outgoing cable along with glands, lugs and other accessories etc. as required e) Lightning and surge voltage protection. f) Connections & Interconnections by supplying & fixing required size conductor 1.1 kV grade armoured power, and control cables between solal spodules, main power cable to gold stupply PCU unit along with supplying if ling of processar classifications accessories etc. as required Supplying and laying of following size DWC HDPE, pipe ISI Marked, along with all accessories like socket, bend, couplers etc conforming to IS 14930, Part II complete with fitting and cutting, jointing etc direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc complete as required 2.1 63 mm dia 509.00 Supplying and Laying One number 3 phase 95 sq. mm to 120 sq. mm PVC insulated and PVC sheathed / XLPE aluminum armoured power cable of 1.1 kV grade of following size in the surface/ground/existing RCC/HUME/METAL pipe complete with testing / Commising etc as required		b) Solar Photovoltaic Module of capacity 540 Wp or above, manufactured in India, conforming to IS 14286/EC 61215, IS/IEC 61730-Part-1, IS/IEC 61730-Part-2. Solar Photovoltaic Module conversion efficiency shall not be less than 16.5%. PV modules used in solar power plants/ systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at			
f) Connections a Interconnections by supplying & fixing required size XLPE insulated content cables between soral anodules, main power cable to grid supply PCU unit along with supplying & fixing or recessary channel/criskuit lugs accessories etc. as required Supplying and laying of following size DWC HDPE, pipe ISI Marked, along with all accessories like socket, bend, couplers etc conforming to IS 14930, Part II complete with fitting and cutting, jointing etc direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc complete as required 2.1 63 mm dia Supplying and Laying One number 3 phase 95 sq. mm to 120 sq. mm PVC Insulated and PVC sheathed / XLPE aluminum armoured power cable of 1.1 KV grade of following size in the surface/ground/existing RCC/HUME/METAL pipe complete with testing / Commising etc as required		c) Data Monitoring System complete with accessories d) Fixing of Array junction box & Main junction box with IP 65 protection and termination arrangement for incoming and outgoing cable along with glands, lugs and other accessories etc. as required:			
Supplying and laying of following size DWC HDPE, pipe ISI Marked, along with all accessories like socket, bend, couplers etc conforming to IS 14930, Part I complete with fitting and cutting, jointing etc direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc complete as required 2.1 63 mm dia Supplying and Laying One number 3 phase 95 sq. mm to 120 sq. mm PVC insulated and PVC sheathed / XLPE aluminum armoured power cable of 1.1 KV grade of following size in the surface/ground/existing RCC/HUME/METAL pipe complete with testing / Commising etc as required		f) Connections & Interconnections by supplying & fixing required size XLPE insulated control conductor 1.1 kV grade armoured power and control cables between solal modules, main power cable to grid supply PCU unit along with supplying & fixing or personal dannel/conduit lugs	1008.00		
Supplying and Laying One number 3 phase 95 sq. mm to 120 sq. mm PVC insulated and PVC sheathed / XLPE aluminum armoured power cable of 1.1 KV grade of following size in the surface/ground/existing RCC/HUME/METAL pipe complete with testing / Commising etc as required	<u>Q2</u>	Supplying and laying of following size DWC HDPE, pipe ISI Marked, along with all accessories like socket, bend, couplers etc conforming to IS 14930, Part I complete with fitting and cutting, jointing etc direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc			
PVC Insulated and PVC sheathed / XLPE aluminum armoured power cable of 1.1 KV grade of following size in the surface/ground/existing RCC/HUME/METAL pipe complete with testing / Commising etc as required	2.1				
Total	03	PVC Insulated and PVC sheathed / XLPE aluminum armoured power cable of 1.1 KV grade of following size in the surface/ground/existing RCC/HUME/METAL pipe complete with testing / Commising etc as	700.00		
l Bolar i i		Total			

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Solvency Certificate

[Format for Solvency Certificate]

To, The Campus Director National Forensic Sciences University, Gandhinagar, 382007

Solvency Certificate

This	is	to	certify	that	to	the	best	of	our	knowl	edge	and	informa	ation
M/S					. (ad	dress)					a cus	stomer o	f
Our b	oank	is re	spectabl	e and b	e tre	eated	as god	od fo	r an e	ngagen	nent u	p to a	sum of F	Rs.
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Desig	nati	on:												
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