

**Minutes of Pre-bid meeting held on 18/09/2017 at 11:00 hrs at the Office of India SME Technology Services Limited (ISTSL) located at E-1, First Floor, Baluja House, Jhandewalan Extension, New Delhi - 110055**

**Request for Selection of Bidders for “Implementation of 18.78 MW Grid Connected Rooftop Solar PV System in Jawahar Navodaya Vidyalayas located in Different States/ Union Territory of India Under RESCO Model” - Ref No.: ISTSL/ Solar/ RFS/ 2017-18/ 04**

ISTSL welcomed the officials of NVS and the representatives of various bidders for the pre-bid meeting which was followed by a round of introduction. Thereafter, ISTSL made a presentation about the salient features of RfS document including the changes made in the model PPA document of Ministry of New and Renewable Energy (MNRE). Subsequently, officials of ISTSL and NVS clarified the queries of bidders. Summary of queries discussed during the meeting as well as received through email and TCIL portal along with ISTSL’s response is placed below. It has to be noted that this document will become a part of the RFS document issued by ISTSL on 6<sup>th</sup> September 2017 (Ref No.: ISTSL/ Solar/ RFS/ 2017-18/ 04).

S. No.	Query	ISTSL Response
1	<p><b>Registration and Bid Submission in TCIL Portal</b></p> <p>ISTSL may request Telecommunications Consultants India Limited (TCIL) to appoint an official specifically for this tender (Ref No. ISTSL/ Solar/ RFS/ 2017-18/ 04) in order to support the bidders in online bid submission. Similarly, ISTSL may also appoint an official for the same.</p>	<p>As mentioned in Bid Information Sheet in page no. 10 of the RFS document, bidders are requested to contact ETS Support Team at TCIL (Multiline Phone No.: 011-26241790, Email id: <a href="mailto:ets_support@tcil-india.com">ets_support@tcil-india.com</a>) for all queries related to registration and bid submission. Bidders are also advised to plan properly and not wait till the last moment to submit their bids.</p>

S. No.	Query	ISTSL Response
2	<p><b>Registration and Bid Submission in TCIL Portal</b></p> <p>For the benefit of bidders, ISTSL may provide training and/ or develop a demonstration video for registration and bid submission in TCIL Portal.</p>	<p>As mentioned in Point no. 1 above, bidders are requested to contact ETS Support Team at TCIL (Multiline Phone No.: 011-26241790, Email id: <a href="mailto:ets_support@tcil-india.com">ets_support@tcil-india.com</a>) for all queries related to registration and bid submission. It is for the bidders to carefully read the instructions provided in the (i) RFS document and (ii) TCIL portal and submit bids accordingly. ISTSL will not be responsible for delay/ non-submission/ non-acceptance of bids for whatsoever reasons/ issues.</p>
3	<p><b>Financial Eligibility Criteria</b></p> <p>MNRE Benchmark Cost for the Rooftop Solar PV System has been reduced. Considering this, will any relaxation be provided in Minimum Average Annual Turnover (MAAT) and Networth Criteria mentioned in Clause 3.3.3 of Part-II of the RfS document?</p>	<p>Considering that the projects are planned to be implemented under RESCO model, significant upfront investment needs to be made by successful bidder(s). Since MAAT/ Networth is an indicator that determines the financial worthiness of bidders to make this upfront investment, there is no change in the financial eligibility criteria mentioned in Clause 3.3.3 of Part-II of the RfS document. In case, any bidder is not meeting the above criteria, the bidder may use the financial strength of its parent company/ affiliate company(ies) to fulfil the above criteria as per Clause 3.1.1 of Part-II of the RfS document. Further, there is an option to submit bid in consortium by becoming technical consortium partner to a lead member who is meeting the above criteria, as per Clause 3.1 of Part-II of the RfS document.</p>

S. No.	Query	ISTSL Response
4	<p><b>Size of the Projects</b></p> <p>For most of the JNVs, capacity of rooftop solar PV system is mentioned as 75 kWp. Is this capacity feasible in a single building or it is distributed in multiple buildings within the same premises? Further, how many power connections/ meters (from DISCOM) are available for any JNV?</p>	<p>The arrangement of JNVs is such that there is an academic/ teaching block, hostels for students, residential complex for teachers, canteens, sports complex etc. and the estimated capacity of 75 kWp is distributed across these buildings. Further, most of the JNVs are built based on two types of design namely (i) CPWD Pattern and (ii) CBRI Pattern. For the benefit of bidders, total roof area of JNVs built as per above design/ pattern is provided in Annexure-1 of this document. Also, the capacity of each JNV mentioned in Annexure-II of the RfS document (page no. 126-135 of 188) is only tentative. Capacity will have to be finalized by the successful bidder(s), in consultation with ISTSL, only after detailed site survey and submission of project sanction documents to ISTSL as per Annexure-A of the RfS document (page no. 84 of 188). Further, it is clarified that there is one (1) no. of power connection/ meter (from DISCOM) available in most of the JNVs.</p>
5	<p><b>Size of the Projects</b></p> <p>What happens if the final capacity at any JNV is less than 75 kWp after completion of site survey by successful bidders? Will the successful bidders have an option to back out if the capacity falls below a minimum capacity?</p>	<p>The bidders will be allowed to install the system whose capacity is finalized after the completion of site survey and in consultation with ISTSL as mentioned in Point no. 4 above. Based on site survey by successful bidders, capacities provided in Annexure-II (page no. 126-135 of 188) of the RfS document may increase or decrease. Further, successful bidders are bound to install the final capacity as mentioned above, and they will not have any option to back out based on the final capacity of the system.</p>

S. No.	Query	ISTSL Response
6	<p><b>Exemption from providing fee to TCIL for downloading tender documents/ submitting bids</b></p> <p>TCIL charges certain amount for downloading tender documents/ uploading bid documents. Is any exemption available to bidders from providing fee to TCIL?</p>	<p>As per Clause 3.3.1 of Part-II of the RfS document, MSME Vendors registered under NSIC/ Udyog Aadhaar/ DIC for the execution of Solar PV projects Category only, are exempted from submission of bid processing fee and bid bond, subject to submission of valid certificates in their bid. Regarding the service charges payable to TCIL by bidders, ISTSL is not responsible for providing any kind of exemption to bidders. Exemption (if any, available) may be taken up by the bidders separately with TCIL.</p>

S. No.	Query	ISTSL Response
7	<p><b>Installation in land/ ground</b></p> <p>What percentage of total capacity of the system at any site (i.e. JNV) can be installed at ground/ land, in case sufficient roof space is not available for installing the capacity as per Annexure-II of the RfS document?</p>	<p>As mentioned in Point no. 4 above, each JNV consists of academic/ teaching block, hostels for students, residential complex for teachers, canteens, sports complex etc. JNV may provide access to roof of any and/ or all the buildings within its campus to ensure that maximum capacity is accommodated in the roof(s). Further, bidders also will have to ensure that roof(s) have to be utilized to the maximum possible extent. In case, the roof(s) are fully utilized and the capacities provided in Annexure-II of the RfS document are still not met, NVS will have the right to either allow or dis-allow further installation in the land/ ground. If permission is granted by NVS for the installation of solar PV system in land/ ground, bidders will have to strictly adhere to relevant guidelines of MNRE for such installation. Further, for the installation of rooftop solar PV system in land/ ground, the cost for building additional structures/ providing additional equipments/ devices (if any) will have to be borne by successful bidder(s)/ power producer(s). NVS/ JNVs will not bear any additional cost in this regard.</p>

S. No.	Query	ISTSL Response
8	<p><b>Provision of water for module cleaning</b></p> <p>Can the JNVs be categorized based on the availability/ non-availability of water? Will NVS be able to provide water wherever water is available? Wherever, water availability is a concern, (i) will NVS be able to provide water at the rooftop at a cost at which NVS is procuring water and/ or (ii) will permission be provided for drilling bore-wells and using ground water for module cleaning?</p>	<p>Bidders are advised to refer to Clause No. 8.3 (j) of the PPA provided in Annexure-IV the RfS document (page no. 160 of 188) and submit their bids accordingly. Further, NVS/ JNVs may provide permission to successful bidder(s)/ power producer(s) for (i) drilling bore-wells within the JNV campus at their own cost and (ii) using this ground water for module cleaning. In this regard, it is the responsibility of successful bidder(s)/ power producer(s) for getting statutory approvals/ permission from Government Bodies/ Agencies other than NVS.</p>
9	<p><b>Payment Security Mechanism</b></p> <p>Buy-back clause is not available in the Power Purchase Agreement (PPA) provided in Annexure-IV of the RfS document. However, it is a general practice to include this clause in "Power Producer's remedies" against any default by "Power Purchaser". In case of non-availability of buy-back clause, is any other payment security mechanism such as revolving letter of credit available for projects implemented under this RfS?</p>	<p>NVS/ JNVs will not purchase the system at any stage and/ or for any reason whatsoever. Further, as per Clause 7.6 of Annexure-IV of the RfS document (page no. 154 of 188), "Late Payment Surcharge of 1.25% per month calculated on the amount of outstanding payment, calculated on a day to day basis for each day of the delay" is available to the Power Producer for delayed payments.</p>
10	<p><b>Submission of Invoice Copies/ TDS Certificate for Non-Government Works</b></p> <p>In cases where TDS Certificates are not available, will any certificate issued by Government Organizations, for e.g. synchronization certificate issued by DISCOM, be considered as proof for completion of the project for Non-Governmental Works?</p>	<p>In case the bidder is not able to submit TDS Certificates for Non-Governmental Works, Completion/ Inspection/ Synchronization Certificate(s) issued by MNRE, State Nodal Agencies, Electrical Inspectorate, Central Electricity Authority will be considered as proof for completion of the project.</p>

S. No.	Query	ISTSL Response
11	Will ISTSL facilitate bidders in getting loan from IREDA, etc.?	ISTSL will not facilitate bidders in getting loan from IREDA and/ or any other bank/ financial institution. Bidders may separately deal with the concerned institutions in this regard.
12	Is it possible to share the “Annual Power Requirement” details of individual JNV, if the data is available?	Yes. Details are provided in Annexure-2 of this document. While utmost care has been taken to summarize this data, ISTSL/ NVS/ JNVs will not be responsible for any errors in the data.

S. No.	Query	ISTSL Response
13	<p><b>Synchronization with DG Set</b></p> <p>As per Clause 2 of Part-VII of the RfS document (page 116 of 128), “In case of grid failure, PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power”. What is the capacity of Diesel Generator available in JNVs? In case of grid failure, will JNVs mandatorily switch on the Diesel Generator even on Saturdays/ Sundays/ Quarterly, Half yearly, Annual holidays etc.?</p>	<p>In case of grid failure, successful bidder(s)/ power producer(s) will not be given permission to synchronize the solar PV system with the existing Diesel Generator in JNVs. However, successful bidder(s)/ power producer(s) have the option to install Diesel Generator in JNVs at their own cost and, in case of grid failure, they may synchronize rooftop solar PV system with their Diesel Generator and supply power to JNVs to the extent of availability of load. NVS/ JNVs will not bear any additional cost in this regard. Further, bidders may please note that, in the above case, payment will be made by NVS/ JNVs based on the quantum of energy consumption and not based on the quantum of energy generated by rooftop solar PV system.</p> <p>Further, duration of grid failure may be excluded from calculation of CUF, provided it is certified by DISCOM and/ or the successful bidder/ power producer can conclusively prove it with data from the inverter/ remote monitoring system. In this case, CUF may be calculated as follows:</p> <p>Yearly CUF = (Yearly Generation in kWh)/ (Capacity of the Plant in kWp * ((24 * 365) – (Total duration of grid failure in a year))) * 100%</p> <p>For e.g., if the capacity of the system is 75 kWp and it generates 90,000 kWh per year and the grid fails for 1,000 hours in a year, CUF may be calculated as follows:</p> <p>Yearly CUF = (90,000)/ (75 * ((24 * 365) – 1,000))) * 100% = 15.46%</p>



S. No.	Query	ISTSL Response
14	<p><b>Technical Eligibility Criteria</b></p> <p>As per the technical eligibility criteria mentioned in Clause 3.3.2 of Part-II of the RfS document, “The Bidder should have designed, supplied, installed &amp; commissioned at least one Grid connected/ Grid tied Rooftop Solar PV Power Project having a capacity of not less than 50 kW which should have been commissioned at least six months prior to Techno-Commercial Bid Opening date”. ISTSL is requested to consider grid connected ground/ land based projects of capacity <math>\geq 50</math> kW as technical features of rooftop and land based projects are more or less the same.</p>	<p>Grid connected ground/ land based projects of capacity <math>\geq 50</math> kW will also be considered provided supporting documents are submitted as per Clause 3.3.2 of Part-II of the RfS document (page no. 23 of 188) and point no. 10 mentioned above.</p>
15	<p><b>Statutory Charges</b></p> <p>What kind of statutory charges will be borne by Power Purchaser?</p>	<p>As per Schedule V of Power Purchase Agreement (page no. 184 of 188 of the RfS document), Power Purchaser will bear statutory charges for (i) obtaining approval from CEIG/ CEA and/ or DISCOM for netmetering connection and (ii) replacement of existing energy meter with bi-directional/ net meter. Power Purchaser will not bear any other cost apart from the above. Though the cost for the above is borne by Power Purchaser, it is the responsibility of Power Producer to obtain all the necessary approvals required for implementation of the project and operation and maintenance of the system as per the scope and technical specifications mentioned in the RfS document.</p>

S. No.	Query	ISTSL Response
16	<p><b>No Objection Certificate (NOC) from DISCOM for Grid Connectivity</b></p> <p>As per the scope of work mentioned in Clause 1 of Part-IV of the RfS document (page no. 49 of 188), “Obtaining NOC from DISCOM for grid connectivity under existing netmetering regulations/ scheme of the State” also under the scope of successful bidder. However, It has to be noted that DISCOMs take their own time before providing approval for grid connectivity under netmetering scheme and the timeframe is not in bidder’s control. In case, the successful bidder completes all the work except for getting approval from DISCOM for grid connectivity, will the project be considered as complete?</p>	<p>As mentioned in the RfS document, the responsibility of obtaining approval from DISCOM for grid connectivity (under existing netmetering regulations/ scheme) lies with the successful bidder. Hence, bidders are advised to initiate the documentation process for netmetering immediately after the capacity is finalized for each JNV. Successful bidder(s) are provided 6 months from the date of issue of letter of allocation by ISTSL for completing the project as per the scope and technical specifications mentioned in the RfS document. Further, (i) if the system is installed as per the technical specifications mentioned in the RfS document; (ii) testing of the system is carried out in the presence of officials of ISTSL/ NVS or the representatives so authorized by ISTSL/ NVS and the performance of the system is found to be satisfactory by the above officials, and (iii) documents required to be submitted to DISCOM for obtaining grid connectivity under existing netmetering regulations/ scheme of the State are submitted to DISCOM by successful bidder(s) after getting required certificates from CEA/ CEIG, no penal action will be taken against bidder(s) for the capacity of rooftop solar PV system (in kWp) for which the above activities are completed within the stipulated time period of 6 months. Further, issues related to grid connectivity/ netmetering will be dealt on case-to-case basis and the decision of ISTSL/ NVS will be final.</p>

S. No.	Query	ISTSL Response
17	<p><b>Capacity Utilization Factor (CUF)</b></p> <p>Some states (both general and special category) are prone to frequent and lengthy grid outages/ power shedding. Also, roofs of buildings might not be south facing in all the cases. In such a scenario, it might not be possible to maintain Capacity Utilization Factor (CUF) of 15% (for general category state) and 13.5% (for special category state). Considering this, ISTSL may relax the CUF criteria. Otherwise, CUF maintenance should be for 1 year as most of the sites are not south facing.</p>	<p>There is no relaxation in the CUF criteria mentioned in the RFS document. Bidders are requested to refer to “Plant Performance Evaluation: Clause No. 8 of Part-IV of the RfS document (page no. 52 of 188)” and “Cancellation of Incentive: Clause No. 10 of Part-IV of the RfS document (page no. 53 of 188)” and submit their bids accordingly.</p> <p>However, as mentioned in Clause 5.6 of Part-III of the RfS document (page no. 44 of 188), duration of grid failure may be excluded from calculation of CUF, provided it is certified by DISCOM and/ or the successful bidder/ power producer can conclusively prove it with data from the inverter/ remote monitoring system. In this case, CUF may be calculated as follows:</p> <p>Yearly CUF = (Yearly Generation in kWh)/ (Capacity of the Plant in kWp * ((24 * 365) – (Total duration of grid failure in a year))) * 100%</p> <p>For e.g., if the capacity of the system is 75 kWp and it generates 90,000 kWh per year and the grid fails for 1,000 hours in a year, CUF may be calculated as follows:</p> <p>Yearly CUF = (90,000)/ (75 * ((24 * 365) – 1,000))) * 100% = 15.46%</p>

S. No.	Query	ISTSL Response
18	<p><b>MNRE Incentive</b></p> <p>Maximum allowable levelized tariff under RESCO Model is mentioned in Clause 2.1.2 and Clause 2.1.3 of Part-II of the RfS document. Also, as per Clause 2.1.3, incentive of INR 16,250 per kWp for general category states and INR 39,000 per kWp for special category states is available for successful bidders. Is the levelized tariff to be quoted by the bidder in price bid, inclusive of incentive or not?</p>	<p>Bidders will have to include maximum eligible incentive i.e. INR 16,250 per kWp for general category states and INR 39,000 per kWp for special category states in their financial analysis and pass on the benefit of incentive to JNVs in terms of reduced tariff. Further, bidders are requested to refer to Clause 4 of Part-III of the RfS document (page no. 42 of 188) for details related to incentive disbursement.</p> <p>Also, please be noted that ISTSL/ NVS/ JNVs will not be responsible for any delay and/ or non-payment of incentive by MNRE.</p>
19	<p><b>Transfer of Capacities to another State</b></p> <p>Please clarify, with reference to Clause 10 of Part-I of the RfS document, the allocation criteria in RfS is L1 in each state not L1 matching.</p>	<p>This is a state-wise bidding process. Bidders have the option to bid for any or all the States as detailed in Clause 2.1.3 of Part-II of RfS document. However, bid has to be submitted for total capacity of any State. Further, as mentioned in Clause 1.5.3.9 of Part-III of the RfS document (page no. 40 of 188), lowest bidder (L1) will be declared as the successful bidder and the state's entire capacity shall be allocated to the successful bidder for that State.</p> <p>Further, in case, the tendered capacity is not feasible in any State and there is more potential in another State, ISTSL reserves the right to transfer the capacity from one State to another State. In that case, the successful bidder of the State from where capacities are transferred, will be asked to match L1 Price of the State to where capacities are transferred.</p>

S. No.	Query	ISTSL Response
20	Please clarify point 2.3.4 of Part-II of the RfS document (page no. 16 of 188) and allocation should be standard for every state and also please clarify that transfer of capacity will be within the mentioned state as per RfS or other state.	Bidders may please note that Clause 2.3.4 of Part-II of the RfS document (page no. 16 of 188) stands DELETED.
21	With reference to Clause 2.3.5 of Part-II of the RfS document, "This should be any criteria to allocate the part capacity either the bidders shall allow to bid for the part capacity or else this point should be removed"	There is no change in Clause 2.3.5 of Part-II of the RfS document (page 16 of 188).
22	<b>Project Allocation and Sanction</b>  In case of non availability of Rooftops bidders should not be penalized as roof identification is in ISTSL scope.	Bidders may not be penalized, in case rooftop solar PV system is not feasible in any JNV. However, bidders have to substantiate non-availability of roof with detailed feasibility reports.
23	<b>Timeline for completion of projects</b>  Timeline for project completion shall start from date of access to roofs and bidders should not be penalized if not given access. Please provide the consent letter from rooftop owner.	As mentioned in Clause 3.8 of Part-III of the RfS document (page no. 42 of 188), bidders have to complete the projects (in all aspects) within 6 months from the date of issuance of letter of allocation by ISTSL. Roof access may be provided immediately after receipt of successful bidder's acceptance to ISTSL's letter of allocation. Thereafter, successful bidder may begin the implementation of projects by carrying out site survey.

S. No.	Query	ISTSL Response
24	<p><b>Scope of Work</b></p> <p>NOC from DISCOMS is very difficult, ISTSL should facilitate or this clause should be removed.</p>	<p>There is no change in Clause 1.1 of Part-IV of the RfS document (page 49 of 188) related to the scope of work. It is the responsibility of successful bidder(s) to obtain all approvals necessary for the implementation of projects according to the scope of work mentioned in the RfS document. Facilitation from ISTSL/ NVS/ JNVs will be restricted only to providing required data/ information for submission to the concerned authorities by successful bidder(s)/ power producer(s).</p>
25	<p><b>Broad Outline of Activities from Bidder's Perspective</b></p> <p>Please clarify "Participate in reverse auction, if invited"</p>	<p>Bidders may please note that Point no. 10 under the heading "Broad Outline of Activities from Bidder's Perspective", page no. 19 of 188 of the RfS document stands DELETED.</p>
26	<p><b>With reference to Clause No. 1.6.1 of Part-III of the RfS document</b>, please specify the timeline for allocation of new roofs and if roofs are not feasible bidders should not be penalized.</p>	<p>Details of new roofs (JNVs) will be provided by NVS/ ISTSL in a State after review of project sanction documents submitted by successful bidder(s) to ISTSL, subsequent to completion of site survey of all the buildings in that State. Please be noted that details of new roofs will be provided by NVS/ ISTSL subject to availability of such roofs in that State.</p>

S. No.	Query	ISTSL Response
27	<p>For states like Gujarat, Karnataka, Maharashtra, Tamil Nadu and Chhattisgarh, there is no clarity in the Net Metering policy whether third party projects in RESCO mode are allowed to avail Net Metering. NVVN may give an assurance or clarity on the policy development in these states and ensure that the Power Producer does not get penalised due to ambiguity in the state Net Metering policies.</p> <p>Also, in case Net Metering is not available in any state or the Power Procurer is not able to get approval for Net Metering, the Power Producer should get paid for the energy generated and all the Open Access Charges (if applicable) should also be in the Procurer's scope</p>	<p>Bidders may please note that there is no JNV in the state of Tamil Nadu. Further, ISTSL/ NVS will not give any assurance or clarity regarding the availability/ development of netmetering regulations/ policy/ scheme in any State/ UT as well as their features. Bidders are required to carefully examine the RfS document as well as existing netmetering regulations/ scheme in various States/ UTs and submit their bids accordingly. Also, it is the responsibility of successful bidder(s) to obtain all approvals necessary for the implementation of projects as per the scope of work and technical specifications mentioned in the RfS document. The Levellized tariff shall remain firm and fixed and shall be binding on Successful Bidder(s)/ Power Producer(s) for a period of 25 years and no escalation will be granted for any reason whatsoever. Taxes and duties (only related to supply of electricity by "Power Producer/ Successful Bidder" to NVS/ JNVs) shall be reimbursed by NVS/ JNVs only on production of satisfactory documentary proof/ receipts by the Successful Bidder/ Power Producer. Further, in case, where net metering approval is not available/ delayed, payment will be made by NVS/ JNVs based on the energy consumed (according to the load availability) and not based on the energy generated. Successful bidders have to consider all these aspects during feasibility assessment and suggest the capacity accordingly.</p>

S. No.	Query	ISTSL Response
28	Please specify the timelines for roof access after the LOA. Also, the timelines for Project Sanction and Commissioning should start after the roof access has been given to the Power Producer.	As mentioned in Clause 3.8 of Part-III of the RfS document (page no. 42 of 188), bidders have to complete the projects (in all aspects) within 6 months from the date of issuance of letter of allocation by ISTSL. Successful Bidder(s) may begin the projects by carrying out site survey immediately after they provide acceptance to letter of allocation issued by ISTSL.
29	<p><b>Solar Photovoltaic Modules</b></p> <p>With reference to Clause 1.1.2 (c), The PV Modules are not equipped with Surge protection device (SPD'S), this protection is part of the inverter.</p>	Clause 1.1.2 (c) of Part-VII of the RfS document (page 111 of 188) discusses about the protection that needs to be provided to modules in case of surges and it needs to be adhered to.
30	<p><b>Array Structure</b></p> <p>Clearance of 300mm shall not be mandatory as ballast structures that do not require penetration on roofs are available at lower heights.</p>	Bidders are required to strictly adhere to the technical specifications of "Array Structure" provided in page no. 112-113 of the RfS document.
31	<p><b>Junction Boxes</b></p> <p>Any kind of requirement for protection devices are in-built in the grid tied inverters thereby making the use/ requirement of Junction boxes optional. Please confirm.</p>	Bidders are required to strictly adhere to the technical specifications of "Junction Boxes" provided in page no. 113 of the RfS document, according to the requirement.
32	<p><b>DC Distribution Board</b></p> <p>Any kind of requirement for protection devices are in-built in the grid tied inverters thereby making the use/ requirement of Junction boxes optional. Please confirm.</p>	Bidders are required to strictly adhere to the technical specifications of "DC Distribution Board" provided in page no. 113 of the RfS document, according to the requirement.



S. No.	Query	ISTSL Response
33	<p><b>PCU/ Array Size Ratio</b></p> <p>As mentioned in Clause 1.6 a (page no. 114 of 188), the combined wattage of all inverters should not be less than rated capacity of power plant under STC. However, As a standard practice and also as recommended by the inverter manufacturer's, AC to DC ratio can be maintained upto 80% for the efficiency maximization.</p>	<p>Bidders are required to strictly adhere to details of "PCU/ Array Size Ratio" provided in page no. 114 of the RfS document.</p>
34	<p><b>PCU/ Inverter</b></p> <p>For each plant, an Online Monitoring shall be provided, We request you to please kindly eliminate requirement of a computer.</p>	<p>As per Clause 1.7 (d) (page no. 115 of 188 of the RfS document), devices such as meters and data loggers are required to be installed by Successful Bidder(s)/ Power Producer(s) as part of the online monitoring system for monitoring the performance of the plant from any external computer (for e.g. computers/ laptops available at ISTSL/ NVS/ JNV). This Clause does not specify installation of computer at each JNV.</p>
35	<p><b>Galvanic isolation of solar rooftop power plant</b></p> <p>With the advent of new technology, these days smart inverters are available in the market which provide highly effective isolation by the means of power electronics components, Thus additional transformer for galvanic isolation is not required. If required, Galvanic Isolation certification can be provided for the same.</p>	<p>Clause 1.7 (g) (page no. 115 of 188 of the RfS document) specifies that separate isolation transformer is required only if this is not incorporated (i.e. not a part of) in the PCU/ Inverter. Hence, if it can be proved by successful bidder(s) through test certificates/ specification sheets that isolation transformer is a part of PCU/ Inverter, the same may be accepted.</p>

S. No.	Query	ISTSL Response
36	<p><b>Isolation of inverter output with respect to the grid/ DG</b></p> <p>As per Clause 2 (page no. 116 of 188 of the RfS document), 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided. This demand is fulfilled by the in-built feature in the inverter. We request you to please kindly allow this.</p>	<p>The referred clause only specifies that 4 pole isolation of inverter output with respect to grid/ DG is required. Hence, if it can be proved by successful bidder(s) through test certificates/ specification sheets that this isolation feature is a part of PCU/ Inverter, the same may be accepted.</p>
37	<p><b>Data Acquisition System/ Plant Monitoring</b></p> <p>Online monitoring shall be provided for data acquisition &amp; logging for each plant. Thus a separate PC will not be required. One Computer can be provided at any one of the location as suggested for REMCL serving as a central monitoring system, We request you to please kindly allow this.</p>	<p>Separate PC may not be required. However, devices such as meters, data loggers etc. have to be installed and arrangements have to be made (along with required software/ hardware) by Successful Bidder(s)/ Power Producer(s) as per the technical specifications of the RfS document so that the performance of the plant is monitored by respective JNVs and at the central level by ISTSL/ NVS.</p>
38	<p><b>Data Acquisition System/ Plant Monitoring</b></p> <p>Radiation sensor and ambient temperature sensor would be provided for radiation measurement and temperature sensors shall be provided at one site in each city. Kindly allow.</p>	<p>Bidders have to provide radiation and temperature sensors for all the JNVs irrespective of their location.</p>

S. No.	Query	ISTSL Response
39	<p><b>Data Acquisition System/ Plant Monitoring</b></p> <p>Since Array Level current monitoring will be provided and self-sufficient for the requirement, String current monitoring shall not be mandatory. We request you to kindly allow this</p>	<p>Bidders are requested to strictly adhere to Clause 3 of Part-VII of the RfS document (page 116-117 of 188).</p>
40	<p><b>Grid Islanding</b></p> <p><b>With respect to Clause 6.4 (a), page no. 118 of 188 of the RfS document,</b> With the advent of new technology, these days smart inverters are available in the market which provide highly efficient and effective inbuilt islanding protection.</p>	<p>The referred clause only specifies that the rooftop PV system shall be equipped with islanding protection. If it can be proved by successful bidder(s) through test certificates/ specification sheets that this feature is a part of PCU/ Inverter, the same may be accepted.</p>
41	<p><b>Cables</b></p> <p>We request you to kindly allow Aluminium cable on the AC Side.</p>	<p>Bidders are requested to strictly adhere to Clause 7 related to Cables (page 118-120 of the RfS document).</p>
42	<p><b>Grid Connectivity</b></p> <p>Wherever the captive consumption is higher than that of the connected load, systems more than 100kW shall be allowed at connection 415 V – 3 Phase. In this case system can be split in 100kW. We request you to kindly allow the same.</p>	<p>Obtaining grid connectivity from the DISCOM for the system under netmetering regulations/ scheme of the State/ UT is the responsibility of the successful bidder(s). Interconnection with the grid shall be according to the relevant Distribution Code/ Supply Code of the State/ CEA regulations at the specified voltage level.</p>

S. No.	Query	ISTSL Response
43	<p><b>Capacity Utilization Factor</b></p> <p>As per Clause 1.14 of Part-V of the RfS document (page no. 60 of 188), CUF = Actual Plant Output in kWh over the year / (Installed Plant Capacity in kW x 365x 24). Installed plant capacity written in kW, please confirm whether it is AC or DC, as project capacity is DC (kWp).</p>	<p>For the purpose of calculation of CUF, installed DC Capacity in kWp will be considered.</p>
44	<p><b>Exemption for MSMEs</b></p> <p>We are attaching the Udyog Aadhaar registration certificate and request you to inform us whether the same is acceptable as per tender requirement of NVS solar rooftop 18.78 MW capacity. We request your reply in this regards at your earliest.</p>	<p>As per Clause 3.3.1 of Part-II of the RfS document (page no. 23 of 188), Bid Processing Fees and Bid Bond are exempted for MSME Vendors/ Developers registered under NSIC/ Udyog Aadhaar/ DIC for the execution of Solar PV projects Category only, subject to submission of valid certificates in their bid. Bidders are requested to carefully examine the above clause and submit their bids accordingly.</p>
45	<p><b>Site Visit</b></p> <p>We request ISTSL-JNV to provide sample site visit to a JNV within NCR, so as to do a feasibility assessment.</p>	<p>As per Clause 3.1 of Part-III of the RfS document (page 41 of 188), bidders, in their own interest, are advised to make a preliminary survey of availability of rooftops for which they intend to bid. In order to visit any JNV (list is available in Annexure-II of the RfS document, page no. 126 of 188 of RfS document) for carrying out feasibility assessment, request shall be sent to ISTSL through email (<a href="mailto:istsl@techsmall.com">istsl@techsmall.com</a>). Upon consideration of the request, ISTSL may provide contact details of the respective JNV along with the address. Email request should be sent to ISTSL at least 3 days before the visit.</p>

S. No.	Query	ISTSL Response
46	<p><b>Deadline for submission of bids</b></p> <p>We request ISTSL for an extension of 3 weeks from the date of amendment</p>	<p>Last date and time for submission of online bids/ offline documents has been extended to 31<sup>st</sup> October 2017 at 11.00 hours.</p>
47	<p><b>Roof Repair - Power Purchase Agreement</b></p> <p>We request you to omit Clause 5.3 (d), Page No. 151 of 188 in the RfS document, in line with the MNRE model PPA.</p>	<p>There is no change in Clause 5.3 (d), Page No. 151 of 188 in the RfS document. Bidders are requested to carefully examine the clause and submit their bids accordingly.</p>
48	<p><b>Disputed Payments – Power Purchase Agreement</b></p> <p>With respect to Clause 7.7 of PPA (page no. 154 of 188 of the RfS document), the timeline is 6 months is illogical. Additional 2 months + 4 months. After 15 days or max 30 days, matter should for arbitration.</p>	<p>There is no change in Clause 7.7 of PPA (page no. 154 of 188 in the RfS document). Bidders are requested to carefully examine the clause and submit their bids accordingly.</p>
49	<p><b>Security – Power Purchase Agreement</b></p> <p>With respect to Clause 8.3 (e) of PPA (page no. 159 of 188 the RfS document), producer should be paid amount on the basis of deemed generation.</p>	<p>There is no change in Clause 8.3 (e) of PPA (page no. 159 of 188 in the RfS document). Bidders are requested to carefully examine the clause and submit their bids accordingly.</p>
50	<p><b>Sunlight Easements</b></p> <p>Power Purchaser should have the task of trimming flora and trees that block access of sunlight to the system, with costs borne solely by the Purchaser. We cannot get permission for cutting trees every year.</p>	<p>As per Clause 8.3 (h) of PPA (page no. 160 of 188 in the RfS document), Power Purchaser will provide permission to producer to trim flora/ trees that overshadow and/ or block the access of sunlight to the system. It is the responsibility of the Power Producer(s) to trim flora/ trees at their own cost so as to maximize the power generation.</p>

S. No.	Query	ISTSL Response
51	<p><b>Power Purchaser Defaults and Power Producer's Remedies</b></p> <p>With respect to Clause 12.2 (a.iii) of PPA (page no. 165 of 188 the RfS document), the amount considered should be an average of the last three undisputed invoices within 60 days from receipt of notice.</p>	<p>There is no change in Clause 12.2 (a.iii) of PPA (page no. 165 of 188 in the RfS document). Bidders are requested to carefully examine the clause and submit their bids accordingly.</p>
52	<p><b>Power Producer's Remedies</b></p> <p>The power producer should be entitled to receive the Purchase Price from the Purchaser as per Schedule III of MNRE Model PPA. Without Purchase Price, RESCO model does not work at all for any bank finance.</p>	<p>There is no change in Clause 12.2 of the PPA (page no. 165 of 188 in the RfS document). Bidders are requested to carefully examine the clause and submit their bids accordingly.</p>
53	<p><b>Evaluation of Price Bid</b></p> <p>In case of a tie in levelized tariff, maximum proposed capacity should not be criteria for allocation because bidders have different preferences to bid for and it also not as per the standard SECI/ NTPC tenders.</p>	<p>In case of a tie, capacity shall be allocated to the bidder having Maximum Average Annual Turnover in the last three financial years (i.e. FY 2014-2015, FY 2015-2016, FY 2016-2017). Clause 1.4.2 (b) of Part-III of the RfS document (page 39 of 188), Note a. of Annexure-C of the RfS document (page 87 of 188), Note 4.a. of Price Bid Format provided in Format-A of the RfS document (page 125 of 188) may be interpreted as mentioned above.</p>
54	<p><b>ISTSL Service Charges</b></p> <p>As per standard SECI/NTPC tender service charges should be maximum INR 2 Lac/MW</p>	<p>ISTSL Service Charges have been calculated based on the guidelines issued by the Ministry of New and Renewable Energy dated 9<sup>th</sup> December 2016. Hence, there is no change in Clause No. 2.2.1 of Part-IV of the RfS document (page 50 of 188) related to ISTSL Charges.</p>

S. No.	Query	ISTSL Response
55	<p><b>Salvage Value</b></p> <p>Please specify the Salvage rate and also clarify the amount given in format for both category of states.</p>	<p>Bidders may please note that power purchaser (in this case, NVS/ JNVs) will not purchase the rooftop Solar PV system at any stage and/ or for any reason whatsoever. Power producer(s) will have to supply power @ fixed tariff (L1 price) for a period of 25 years as per the terms and conditions of the RfS document and PPA. In this scenario, the table related to “Salvage Value” provided in Schedule V of the PPA (page no. 184 of 188 of the RfS document) stands DELETED.</p>
56	<p><b>Purchase Value</b></p> <p>There must be some Lock in period for purchase of the project i.e. Developer should have atleast 10-15 years of ownership</p>	<p>Bidders may please note that power purchaser (in this case, NVS/ JNVs) will not purchase the rooftop Solar PV system at any stage and/ or for any reason whatsoever. Power producer(s) will have to supply power @ fixed tariff (L1 price) for a period of 25 years as per the terms and conditions of the RfS document and PPA. In this scenario, the table related to “Purchase Price” provided in Schedule III of the PPA (page no. 180 of 188 of the RfS document) stands DELETED.</p>

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## Roof Area of JNVs

Navodaya Vidyalaya Samiti

### Roof Area of JNV Buildings - CPWD & CBRI design

#### Summary

S. No.	Design	Total Plinth Area (in sq. m)	Total Roof Area (in sq. m)
1	CPWD Design with all single storey buildings	8888.00	8888.00
2	CPWD Design with Double storey buildings of School Building, Dormitories, Staff Quarters.	9198.00	5355.50
3	CBRI Design with Double storey buildings of School Building, Dormitories, Staff Quarters.	8866.01	5158.50



**Roof Area of JNV Buildings  
(CPWD Design)  
(All Single Storey buildings)**

<b>Constructed in Phase-A</b>						
<b>S. No.</b>	<b>Building (RCC framed structure)</b>	<b>Nos.</b>	<b>Plinth Area of each Building (sq. m)</b>	<b>Total Plinth Area (sq. m)</b>	<b>Roof Area of each Building (sq. m)</b>	<b>Total Roof Area (sq. m)</b>
1	School Building (S/S)	1	1913	1913	1913	1913.00
2	Dormitories (S/S) for 192 students without Warden Residence	1.5	1344	2016	1344	2016.00
3	Kitchen & Dining Hall (S/S)	1	757	757	757	757.00
4	Principal Quarters (S/S)	1	106	106	106	106.00
5	Type-III (S/S)	8	55	440	55	440.00
6	Warden Residence (constructed along with dormitories)	6	55	330	55	330.00
7	Type-II (S/S)	4	45	180	45	180.00
8	Type-I (S/S)	4	35	140	35	140.00
	<b>Total</b>			<b>5882</b>		<b>5882.00</b>

<b>Constructed in Phase-B</b>						
<b>S. No.</b>	<b>Building (RCC framed structure)</b>	<b>Nos.</b>	<b>Plinth Area of each Building (sq. m)</b>	<b>Total Plinth Area (sq. m)</b>	<b>Roof Area of each Building (sq. m)</b>	<b>Total Roof Area (sq. m)</b>
1	Dormitories (S/S) for 192 students without Warden Residence	1.5	1344	2016	1344	2016.00
2	Type-III (S/S)	8	55	440	55	440.00
3	Warden Residence (constructed along with dormitories)	6	55	330	55	330.00
4	Type-II (S/S)	2	45	90	45	90.00
5	Type-I (S/S)	2	35	70	35	70.00
6	Guest House (S/S)	1	60	60	60	60.00
	<b>Total</b>			<b>3006</b>		<b>3006.00</b>

**Total Roof area of buildings  
constructed in Phase-A & B**

**8888.00**

**sq. m**

**Roof Area of JNV Buildings  
(CPWD Design)  
(With Double Storey buildings of School Building, Dormitories, Staff Quarters)**

<b>Constructed in Phase-A</b>						
<b>S. No.</b>	<b>Building (RCC framed structure)</b>	<b>Nos.</b>	<b>Plinth Area of each Building (sq. m)</b>	<b>Total Plinth Area (sq. m)</b>	<b>Roof Area of each Building (sq. m)</b>	<b>Total Roof Area (sq. m)</b>
1	School Building (D/S)	1	1966	1966	1039.5	1039.50
2	Dormitories (D/S ) for 192 students without Warden Residence	1.5	1383	2074.5	771	1156.50
3	Kitchen & Dining Hall (S/S)	1	757	757	757	757.00
4	Principal Qtr. (S/S)	1	106	106	106	106.00
5	Type-III (D/S)	8	60	480	30	240.00
6	Warden Residence (constructed along with dormitories)	6	55	330	27.5	165.00
7	Type-II (D/S)	4	50	200	25	100.00
8	Type-I (D/S)	4	40	160	20	80.00
	<b>Total</b>			<b>6073.5</b>		<b>3644.00</b>

<b>Constructed in Phase-B</b>						
<b>S. No.</b>	<b>Building (RCC framed structure)</b>	<b>Nos.</b>	<b>Plinth Area of each Building (sq. m)</b>	<b>Total Plinth Area (sq. m)</b>	<b>Roof Area of each Building (sq. m)</b>	<b>Total Roof Area (sq. m)</b>
1	Dormitories (D/S) for 192 students without Warden Residence.	1.5	1383	2074.5	771	1156.50
2	Type-III (D/S)	8	60	480	30	240.00
3	Warden Residence (constructed along with dormitories)	6	55	330	27.5	165.00
4	Type-II (D/S)	2	50	100	25	50.00
5	Type-I (D/S)	2	40	80	20	40.00
6	Guest House (S/S)	1	60	60	60	60.00
	<b>Total</b>			<b>3124.5</b>		<b>1711.50</b>

**Total Roof area of buildings  
constructed in Phase-A & B**

**5355.50**

**sq. m**

### Roof Area of JNV Buildings

(CBRI Design)

(With Double storey buildings of School Building, Dormitories, Staff Quarters)

S. No.	Building (RCC framed structure)	Nos.	Plinth Area of each Building (sq. m)	Total Plinth Area (sq. m)	Roof Area of each Building (sq. m)	Total Roof Area (sq. m)
1	School Building (D/S)	1	2400	2400	1200	1200.00
2	Dormitories (D/S) for 192 students without Warden Residence	1.75	1590.29	2783.01	795.14	1391.50
3	M P Hall	1	748	748	748	748.00
4	Kitchen & Dining Hall (S/S)	1	553	553	553	553.00
5	Principal Quarters (S/S)	1	105	105	105	105.00
6	Type-III (D/S)	12	72	864	36	432.00
7	Type-III (D/S)	12	55	660	27.5	330.00
8	Type-II(S/S)	1	45	45	45	45.00
9	Type-I (D/S)	12	35	420	17.5	210.00
10	Warden Residence	4	72	288	36	144.00
	<b>Total</b>			<b>8866.01</b>		<b>5158.50</b>

**Total Roof area of Buildings**

**5158.50**

**sq. m**

**Annexure-2**
**Present Power Consumption Details of JNVs  
Special Category States**

S. No.	Name/ Location of the JNV	State	Annual Electricity consumption (kWh in lakh)
1	Middle Andaman	Andaman & Nicobar	0.90
2	Car Nicobar	Andaman & Nicobar	1.23
3	Lohit	Arunachal Pradesh	1.50
4	Nagaon	Assam	0.93
5	Golaghat	Assam	1.74
6	Tinsukia	Assam	2.31
7	Kamrup (Rangia)	Assam	1.80
8	Jorhat	Assam	1.79
9	Sonitpur	Assam	1.50
10	Karbi Anglong (Diphu)	Assam	1.36
11	Kokrajhar (Gosaigaon)	Assam	4.21
12	Nalbari	Assam	1.30
13	Shimla	Himachal Pradesh	2.03
14	Sirmour	Himachal Pradesh	1.46
15	Una	Himachal Pradesh	1.09
16	Minycoy	Lakshadweep	2.25
17	Bishnupur (Loktar)	Manipur	1.38
18	Mon	Nagaland	0.87
19	North Sikkim (Phodong)	Sikkim	3.13
20	South Tripura (Udaipur)	Tripura	1.80
21	Dhalai	Tripura	0.81

### General Category States

S. No.	Name/ Location of the JNV	State	Annual Electricity Consumption (kWh in Lakh)
1	West Godavary	Andhra Pradesh	2.51
2	East Godavari	Andhra Pradesh	3.1
3	Chittoor	Andhra Pradesh	2.16
4	Nellore	Andhra Pradesh	3
5	Prakasam	Andhra Pradesh	2.47
6	Srikakulam	Andhra Pradesh	2
7	Kurnool	Andhra Pradesh	1.72
8	Kadapa	Andhra Pradesh	1.55
9	Prakasam-II	Andhra Pradesh	1.37
10	Krishna	Andhra Pradesh	2.71
11	Vizianagaram	Andhra Pradesh	1.68
12	Anantapur	Andhra Pradesh	1.61
13	Purnea	Bihar	2.49
14	Kanker	Chhattisgarh	1.13
15	Raipur	Chhattisgarh	3.09
16	Dhamtari	Chhattisgarh	1.95
17	Kabirdham	Chhattisgarh	1.7
18	Durg	Chhattisgarh	2.99
19	Rajnandgaon	Chhattisgarh	2.3
20	Dantewada	Chhattisgarh	1.6
21	Janjgir Champa	Chhattisgarh	1.6
22	Jaffarpurkalan	Delhi	2.3
23	Mungeshpur	Delhi	3.95
24	Gandhinagar	Gujarat	1.3
25	Mehsana	Gujarat	1.13
26	Kutch	Gujarat	1.47
27	Sabarkantha	Gujarat	1.94
28	Junagadh	Gujarat	2.27
29	Patan	Gujarat	1.83
30	Jamnagar	Gujarat	1.2
31	Hissar	Haryana	2.19
32	Sirsa	Haryana	2.19
33	Kurukshetra	Haryana	1.63
34	Kaithal	Haryana	1.66
35	Bhiwani	Haryana	1.66
36	Mohindargarh	Haryana	1.66
37	Jind	Haryana	1.66

S. No.	Name/ Location of the JNV	State	Annual Electricity Consumption (kWh in Lakh)
38	Mewat	Haryana	1.66
39	Faridabad	Haryana	1.88
40	Sonepat	Haryana	3.88
41	Koderma	Jharkhand	1.95
42	Mysore	Karnataka	1.66
43	Bidar	Karnataka	2.24
44	Yadagere	Karnataka	2.24
45	Chitradurga	Karnataka	2.6
46	Kalaburagi	Karnataka	1.79
47	South Canara	Karnataka	2.99
48	Ballary	Karnataka	2.4
49	Banglore Rural	Karnataka	2.79
50	Tumkur	Karnataka	2.29
51	Banglore Urban	Karnataka	2.16
52	Koppal	Karnataka	1.62
53	Raichur	Karnataka	2.6
54	Chikkaballapura	Karnataka	2.04
55	Shimoga	Karnataka	2.04
56	Davangere	Karnataka	1.74
57	Gadag	Karnataka	1.68
58	Chikmagalur	Karnataka	1.63
59	Chamarajnagar	Karnataka	1.62
60	Udupi	Karnataka	1.58
61	Hassan	Karnataka	1.56
62	Dharwad	Karnataka	1.48
63	Bijapur	Karnataka	1.44
64	N.Canara	Karnataka	1.43
65	Kannur	Kerala	1.35
66	Pathanamthitta	Kerala	1.26
67	Kollam	Kerala	1.52
68	Trichur	Kerala	1.4
69	Malappuram	Kerala	1.92
70	Ernakulam	Kerala	1.71
71	Kottayam	Kerala	2.08
72	Calicut	Kerala	1.83
73	Anuppur	Madhya Pradesh	1.29
74	Hoshangabad	Madhya Pradesh	2.42
75	Umaria	Madhya Pradesh	1.5

S. No.	Name/ Location of the JNV	State	Annual Electricity Consumption (kWh in Lakh)
76	Bhopal	Madhya Pradesh	2.89
77	Bajaghat	Madhya Pradesh	2.15
78	Betul	Madhya Pradesh	1.62
79	Harda	Madhya Pradesh	2.11
80	Gwalior	Madhya Pradesh	2.01
81	Khandwa	Madhya Pradesh	1.87
82	Raisen	Madhya Pradesh	2.64
83	Ujjain-II	Madhya Pradesh	1.3
84	Mandsaur	Madhya Pradesh	1.26
85	Shajapur	Madhya Pradesh	2.12
86	Khargone	Madhya Pradesh	1.55
87	Sehore	Madhya Pradesh	2
88	Seoni	Madhya Pradesh	2
89	Guna	Madhya Pradesh	2.04
90	Jabalpur	Madhya Pradesh	2.42
91	Alirajpur	Madhya Pradesh	2.04
92	Shivpuri	Madhya Pradesh	2.5
93	Sheopur	Madhya Pradesh	2
94	Tikamgarh	Madhya Pradesh	2
95	Barwani	Madhya Pradesh	1.99
96	Neemuch	Madhya Pradesh	2.17
97	Indore	Madhya Pradesh	3.44
98	Dhar	Madhya Pradesh	2.5
99	Sidhi	Madhya Pradesh	1.9
100	Burhanpur	Madhya Pradesh	1.55
101	Narshinghpur	Madhya Pradesh	2.85
102	Satna	Madhya Pradesh	2.1
103	Rewa	Madhya Pradesh	1.6
104	Yavatmal	Maharashtra	1.33
105	Washim	Maharashtra	2.3
106	Auranagabad	Maharashtra	1.62
107	Sindhudurg	Maharashtra	1.59
108	Ahmednagar	Maharashtra	1.28
109	Sangli	Maharashtra	1.66
110	Akola	Maharashtra	1.3
111	Thane	Maharashtra	2.12
112	Buldhana	Maharashtra	1.7
113	Raigad	Maharashtra	1.69

S. No.	Name/ Location of the JNV	State	Annual Electricity Consumption (kWh in Lakh)
114	Nandurbar (I)	Maharashtra	1.54
115	Amravati	Maharashtra	2.07
116	Ratnagiri	Maharashtra	1.23
117	Nasik	Maharashtra	1.37
118	Gadchiroli	Maharashtra	1.61
119	Jalna	Maharashtra	1.17
120	Kolhapur	Maharashtra	2.09
121	Dhule	Maharashtra	1.4
122	Chandrapur	Maharashtra	1.41
123	Nanded	Maharashtra	1.41
124	Solapur	Maharashtra	1.7
125	Hingoli	Maharashtra	1.9
126	Gondia	Maharashtra	1.8
127	Naupada	Odisha	1.21
128	Mahe	Puducherry	1.14
129	Karaikal	Puducherry	1.55
130	Patiala	Punjab	1.81
131	Bathinda	Punjab	2.49
132	Pojewal	Punjab	2.37
133	Moga	Punjab	1.95
134	Barnala	Punjab	1.45
135	Hoshiarpur	Punjab	2.13
136	Ferozepur	Punjab	3
137	Pathankot	Punjab	1.49
138	Amritsar	Punjab	1.81
139	Kapurthala	Punjab	2.56
140	Bhilwara	Rajasthan	1.79
141	Ajmer	Rajasthan	1.79
142	Dausa	Rajasthan	1.87
143	Sawai Madhopur	Rajasthan	1.87
144	Baran	Rajasthan	2.16
145	Rajsamand	Rajasthan	1.66
146	Dungarpur	Rajasthan	1.66
147	Jaisalmer	Rajasthan	1.66
148	Jodhpur	Rajasthan	1.66
149	Sirohi	Rajasthan	1.66
150	Udaipur	Rajasthan	1.66
151	Tonk	Rajasthan	1.8



S. No.	Name/ Location of the JNV	State	Annual Electricity Consumption (kWh in Lakh)
152	Jhalawar	Rajasthan	1.8
153	Kota	Rajasthan	1.8
154	Dholpur	Rajasthan	1.8
155	Bharatpur	Rajasthan	1.8
156	Karauli	Rajasthan	1.8
157	Chittorgarh	Rajasthan	1.47
158	Sikar	Rajasthan	3.23
159	Alwar	Rajasthan	3.23
160	Pali	Rajasthan	2.13
161	Jalore	Rajasthan	2.12
162	Sriganganager-I	Rajasthan	1.54
163	Bikaner	Rajasthan	1.54
164	Hanumangarh	Rajasthan	1.54
165	Barmer	Rajasthan	1.3
166	Nagaur	Rajasthan	1.28
167	Churu	Rajasthan	1.28
168	Bundi	Rajasthan	2.88
169	Nalgonda	Telangana	1.5
170	Warangal	Telangana	2.03
171	Ranga Reddy	Telangana	2.45
172	Medak	Telangana	2.76
173	Adilabad	Telangana	2.25
174	Khammam	Telangana	2.36
175	Nizamabad	Telangana	1.25
176	Mahaboob Nagar	Telangana	2.22
177	G B Nagar	Uttar Pradesh	1.7
178	Meerut	Uttar Pradesh	1.98
179	Chitrakoot	Uttar Pradesh	1.46
180	Farrukhabad	Uttar Pradesh	2.31
181	Pratapgarh	Uttar Pradesh	2.67
182	Kannauj	Uttar Pradesh	2.88
183	Ghaziabad	Uttar Pradesh	2.32
184	Agra	Uttar Pradesh	1.2
185	Ambedkar Nagar	Uttar Pradesh	1.2
186	Azamgarh	Uttar Pradesh	1.2
187	Baghpat	Uttar Pradesh	1.2
188	Bahraich	Uttar Pradesh	1.2
189	Balrampur	Uttar Pradesh	1.2

S. No.	Name/ Location of the JNV	State	Annual Electricity Consumption (kWh in Lakh)
190	Banda	Uttar Pradesh	1.2
191	Bareilly	Uttar Pradesh	1.2
192	Bulandshahar	Uttar Pradesh	1.2
193	Chandauli	Uttar Pradesh	1.2
194	Etawah	Uttar Pradesh	1.2
195	Fatehpur	Uttar Pradesh	1.2
196	Firozabad	Uttar Pradesh	1.2
197	Ghazipur	Uttar Pradesh	1.2
198	Gonda	Uttar Pradesh	1.2
199	Gorakhpur	Uttar Pradesh	1.2
200	Hardoi	Uttar Pradesh	1.2
201	Hathras	Uttar Pradesh	1.2
202	J P Nagar	Uttar Pradesh	1.2
203	Jalaun	Uttar Pradesh	1.2
204	Jaunpur	Uttar Pradesh	1.2
205	Jhansi	Uttar Pradesh	1.2
206	Kanpur Dehat	Uttar Pradesh	1.2
207	Kanpur Nagar	Uttar Pradesh	1.2
208	Kaushambi	Uttar Pradesh	1.2
209	Lakhimpuri Khiri	Uttar Pradesh	1.2
210	Lalitpur	Uttar Pradesh	1.2
211	Lucknow	Uttar Pradesh	1.2
212	Maharajganj	Uttar Pradesh	1.2
213	Mahoba	Uttar Pradesh	1.2
214	Mathura	Uttar Pradesh	1.2
215	Mirzapur	Uttar Pradesh	1.2
216	Pilibhit	Uttar Pradesh	1.2
217	Saharanpur	Uttar Pradesh	1.2
218	Shrawasti	Uttar Pradesh	1.2
219	Sidharthnagar	Uttar Pradesh	1.2
220	Sitapur	Uttar Pradesh	1.2
221	Varansi	Uttar Pradesh	1.2
222	Auraiya	Uttar Pradesh	1.6
223	Sonebhadra	Uttar Pradesh	1.42
224	Mainpuri	Uttar Pradesh	3.45
225	Faizabad	Uttar Pradesh	2.4
226	Mau	Uttar Pradesh	1.81
227	Bhadohi	Uttar Pradesh	2.4

S. No.	Name/ Location of the JNV	State	Annual Electricity Consumption (kWh in Lakh)
228	Muzaffarnagar	Uttar Pradesh	2.22
229	NVS HO, Noida	Uttar Pradesh	4.60
230	W. Medinipur	West Bengal	1.3
231	Hoogly	West Bengal	2.27

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