

Amendment - 01				
NIT - SECI/C&P/OFBK5/062017 dated 21/07/2017				
Setting up of 5 MW at Ordnance factory kanpur under VGF scheme				
Sr. No.	Ref. Section	clause No.	existing clause	Amended clause
1		1.3	. The Solar Project Developer selected by SECI based on this RfS (hereafter referred to as SPD), shall set up a Solar PV Power Project of 5 MW (AC) capacity including setting up of the evacuation network up to the 33kV switchgear at the load centre of OFC, Kanpur. The SPD shall be given a Viability Gap Funding (VGF) by SECI in accordance to the provisions of this RfS document, standard Power Purchase Agreement (PPA) and VGF Securitization Agreement (VGFSa). (Note: Both standard PPA and VGF Securitization Agreement shall be uploaded shortly and can be downloaded from www.tcil-india-electronictender.com)	. The Solar Project Developer selected by SECI based on this RfS (hereafter referred to as SPD), shall set up a Solar PV Power Project of 5 MW (AC) capacity including setting up of the evacuation network up to the 132kV switchgear at the load centre of OFC, Kanpur. The SPD shall be given a Viability Gap Funding (VGF) by SECI in accordance to the provisions of this RfS document, standard Power Purchase Agreement (PPA) and VGF Securitization Agreement (VGFSa). (Note: Both standard PPA and VGF Securitization Agreement shall be uploaded shortly and can be downloaded from www.tcil-india-electronictender.com)
2		3.3	The SPD shall set up a Solar PV Power Project of 5 MW capacity including setting up of the evacuation network up to the 33 kV switchgear at the load centre of OFC, Kanpur. The geographical co-ordinates of Ordnance Factory Kanpur are 26.46700 N and 80.35000 E. The coordinates of the designated land area are 26.4740N & 80.2690 E. The land identified for the project shall be made available to the SPD by OFC, given under "Right-to-Use" to the SPD. The scope of SPD also includes setting up of power evacuation system including step up transformer, overhead lines etc. and connecting to the Sub-station at 33 kV level or above. The SPD shall also provide metering arrangement at 33 kV voltage level or above. Further, the project shall comprise technology as mentioned in Clause 1.4.1.	The SPD shall set up a Solar PV Power Project of 5 MW capacity including setting up of the evacuation network up to the 132 kV switchgear at the load centre of OFC, Kanpur. The geographical co-ordinates of Ordnance Factory Kanpur are 26.46700 N and 80.35000 E. The coordinates of the designated land area are 26.4740N & 80.2690 E. The land identified for the project shall be made available to the SPD by OFC, given under "Right-to-Use" to the SPD. The scope of SPD also includes setting up of power evacuation system including step up transformer, overhead lines etc. and connecting to the Sub-station at 132 kV level. The SPD shall also provide metering arrangement at 132 kV voltage level. Further, the project shall comprise technology as mentioned in Clause 1.4.1.
3		3.5	Solar power Project shall be of 5 MW AC capacity at delivery point	Solar power Project shall be of 5 MW AC capacity at delivery point i.e. at the interconnection point of 132 kV switchgear at the load centre of OFC. The SPD shall demonstrate the contracted capacity at the delivery point, as defined in the Commissioning procedure enclosed in Annexure-B. <i>It may be noted that the bidders are required to bid for the entire capacity of 5 MW of the Project and part-capacity allocation is not envisaged in this RfS.</i>
4		3.1	i) The plant should be designed for interconnection with the 33 kV switchgear at the load centre of OFC at the voltage level of 33 kV or above. Detailed layout of the proposed connectivity plan is enclosed at Annexure-F.	i) The plant should be designed for interconnection with the 132 kV switchgear at the load centre of OFC at the voltage level of 132 kV or above. Detailed layout of the proposed connectivity plan is enclosed at Annexure-B.

5			<p><b>“Inter-connection point / Delivery /Metering Point”</b> shall mean the point at the 11 kV switchgear at the load centre of OFC, where the power from the solar power Project is injected (including the dedicated transmission line connecting the solar power project with the interconnection point). Metering shall be done at this interconnection point where the power is injected, i.e. the Delivery Point. For interconnection with grid and metering, the SPDs shall abide by the relevant CERC Regulations, Grid Code and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended and revised from time to time;</p>	<p><b>“Inter-connection point / Delivery /Metering Point”</b> shall mean the point at the 132 kV switchgear at the load centre of OFC, where the power from the solar power Project is injected (including the dedicated transmission line connecting the solar power project with the interconnection point). Metering shall be done at this interconnection point where the power is injected, i.e. the Delivery Point. For interconnection with grid and metering, the SPDs shall abide by the relevant CERC Regulations, Grid Code and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended and revised from time to time;</p>
6			Minutes of meeting of pre-bid	Attached at Annexure-A of this Amendment01
7			Layout diagram	Attached at Annexure-B of this Amendment01
8			UPERC order for setting up of 5 MW project	Attached at Annexure-C of this Amendment01
9			New clause	All the arrangement of switching including installation of metering and other requisite hardware for switching with the grid will be done by the KESKO and the entire cost of the same, including, material and labour, will be borne by the developer on the Advise of KESKO
10		4.2	New clause	Power Evacuation from the project end to delivery point shall be done through underground cable
11		3.14	<p>vi) The SPD selected based on this RfS is required to sign PPA with OFC within 30 days after the issue of LOI. In case, OFC, Kanpur offers to execute the PPA with the Selected Bidder and if the Selected Bidder does not submit the requisite documents as per Clause 3.19 or does not meet eligibility criteria upon submission of documents or does not execute the PPA within the stipulated time period, then the Bank Guarantee submitted towards EMD shall be encashed by SECI. SECI reserves the right to allocate the project to the next eligible bidder shortlisted based on the reverse auction process, provided the next eligible bidder matches the L1 VGF/discounted tariff quoted by the SPD originally awarded the project.</p>	<p>vi) The SPD selected based on this RfS is required to sign PPA with OFC within 30 days after the issue of LOI. In case, OFC, Kanpur offers to execute the PPA with the Selected Bidder and if the Selected Bidder does not submit the requisite documents as per Clause 3.9 or does not meet eligibility criteria upon submission of documents or does not execute the PPA within the stipulated time period, then the Bank Guarantee submitted towards EMD shall be encashed by SECI. SECI reserves the right to allocate the project to the next eligible bidder shortlisted based on the reverse auction process, provided the next eligible bidder matches the L1 VGF/discounted tariff quoted by the SPD originally awarded the project.</p>
		4.4	<p>Scenario - 1                      Scenario - 2</p> <p>INR 5.26 (discounted tariff)    INR 5.26 (discounted tariff)</p> <p>INR 5.30 (discounted tariff)    INR 4.75 (, discounted tariff)</p> <p>....</p> <p>....</p> <p>INR 53,00,000/- (VGF)            INR 0/- (zero VGF)</p> <p>INR 70,00,000/- (VGF)            INR 20,00,000/- (VGF)</p>	<p>Scenario - 1                      Scenario - 2</p> <p>INR 5.26 (discounted tariff)    INR 4.26 (discounted tariff)</p> <p>INR 5.30 (discounted tariff)    INR 4.75 (, discounted tariff)</p> <p>....</p> <p>....</p> <p>INR 53,00,000/- (VGF)            INR 0/- (zero VGF)</p> <p>INR 70,00,000/- (VGF)            INR 20,00,000/- (VGF)</p>

**Minutes of Meeting Between Ordnance Factory Kanpur(OFC) and KESCO , held at OFC Conference Room on 4/8/2017 in Connection with the Implementation of 5MW Grid Connected Solar Power Plant being Executed under Defence Scheme**

Following were present:

**OFC Side**

1. Shri R.K.Singh, Jt. General Manager
2. Shri C B S Yadav, Works Manager
3. Shri Deepak Kumar, Works Manager

**KESCO Side**

1. Shri S.K. Madhukar, Exec. Engineer
2. Shri A.K.Aanand, Exec. Engineer

The Meeting was held in the back drop of pre- bid meeting with the prospective developers and M/s Solar Energy Corporation of India , New Delhi , the nodal agency nominated by MNRE for implementation of the project. The KESCO Officers were apprised of the UPERC order dated 1/6/2017 against OFC petition No. 1192 of 2017, for the said project and a copy of the same was given to them for their reference. Following points were discussed and agreed to-

- i) As OFC has separate feeder of 132 KV from KESCO, switching with the grid will be carried out at 132 KV level within the ambit of UPERC Rooftop Solar PV Grid interactive systems Gross/Net metering Regulations 2015 and relaxation given by UPERC vide its order dated 1/6/2017.
- ii) All the arrangement of switching, including installation of metering and other requisite hardware for switching with the grid will be done by the KESCO and the entire cost of the same, including material and labour, will be borne by the developer on the advice of KESCO.

Meeting ended with the vote of thanks to the visitors.

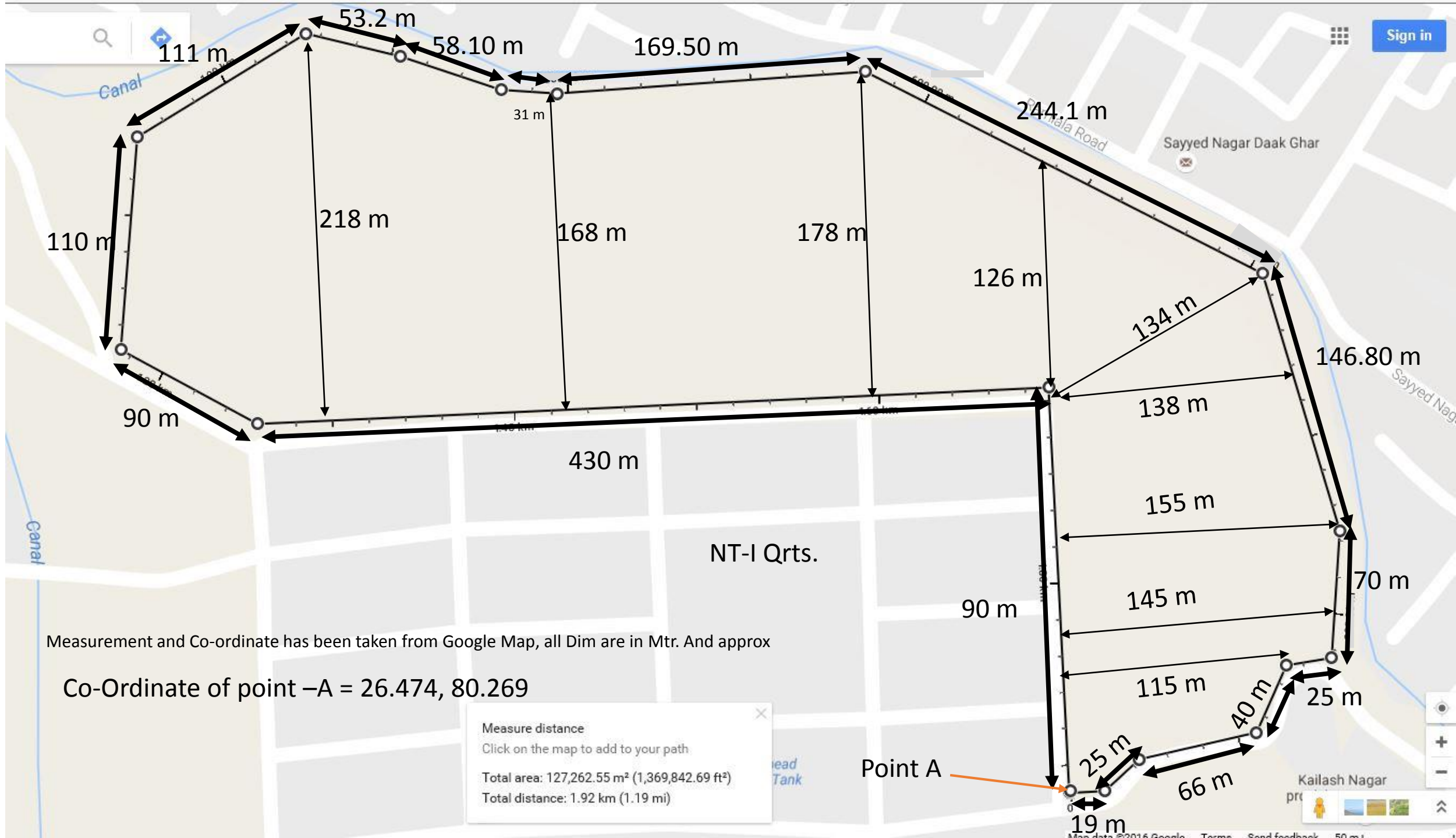


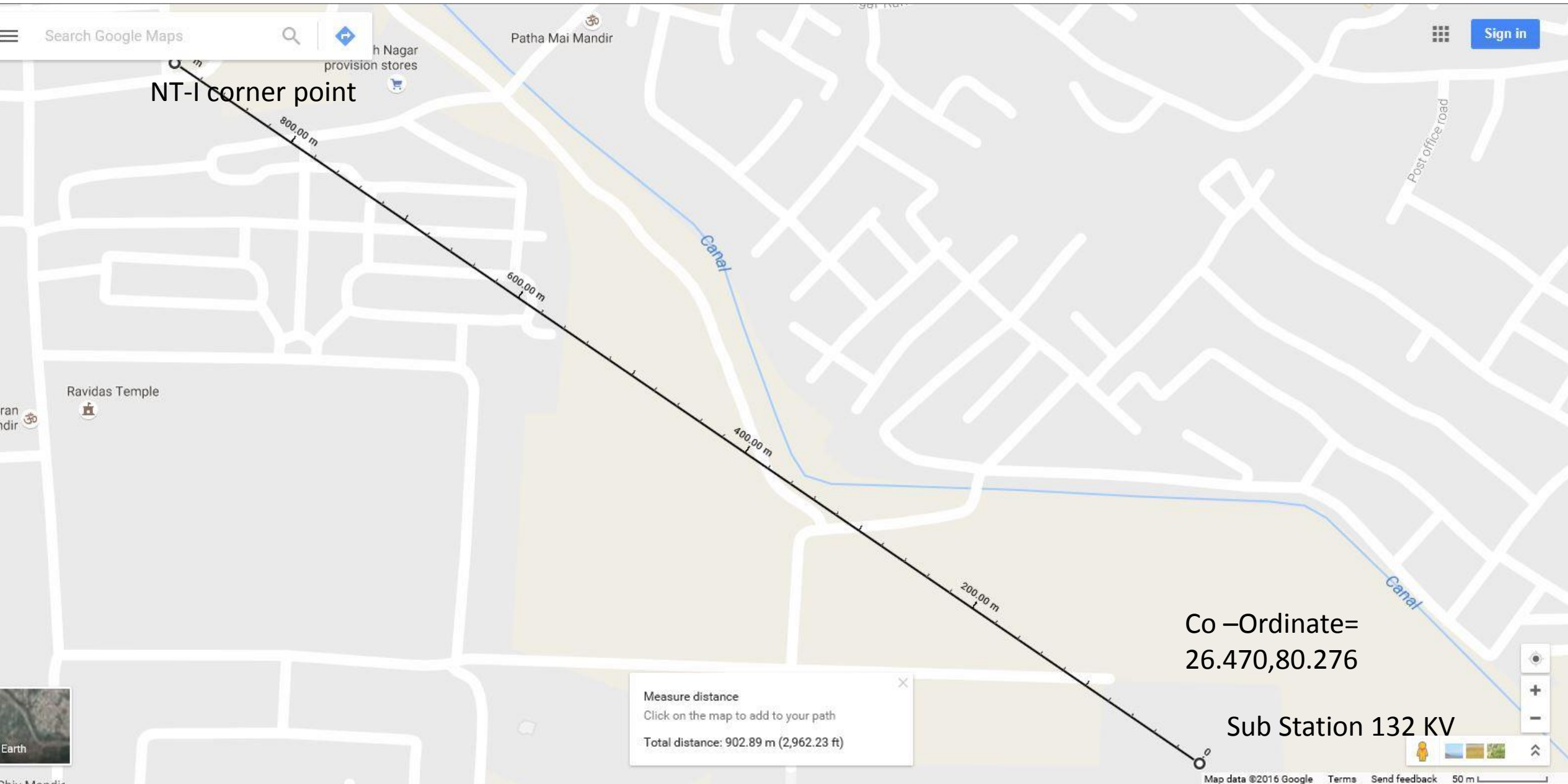
**R.K. Singh**

Jt.General Manager/OFC



**1. Shri S.K. Madhukar**  
Exec. Engineer/KESCO







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**Petition No. 1192 of 2017**

**BEFORE  
THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION  
LUCKNOW**

**Date of Order: 01.06.2017**

**PRESENT:**

1. Hon'ble Sri Desh Deepak Verma, Chairman
2. Hon'ble Sri S.K. Agarwal, Member

**IN THE MATTER OF:** For seeking permission to establish 5 MW rooftop solar plant under RSPV Regulations.

**AND**

**IN THE MATTER OF**

Sr. GM,  
Kanpur Ordnance Factory (OFC),  
Kalpi Road,  
Kanpur-208009

----- **Petitioner**

**AND**

Chief Engineer (PPA),  
U.P. Power Corporation Ltd.,  
14th Floor, Shakti Bhawan,  
14-Ashok Marg,  
Lucknow – 226001

Director  
U.P. New & Renewable Energy Development Agency,  
Vibhuti Khand, Gomti Nagar,  
Lucknow

----- **Respondents**

Following were presents:

1. Sri V.P. Srivastava, CE PPA
2. Sri Ravi Kumar Singh, Jt. G.M., OFC
3. Sri C.B.S. Yadav, Works Manager, OFC
4. Smt. Namrta Karla, PO, UPNEDA
5. Sri Atul Shankar, UPNEDA

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**ORDER**  
**(Date of Hearing 03.05.2017 & 15.05.2017)**

1. The petition is filed by Ordnance Factory Kanpur to seek relaxation in UPERC (Rooftop Solar PV Grid interactive systems gross/ net metering) Regulations, 2015 so as to establish 5 MW solar plant under the net metering mechanism at its premises. It is pertinent to mention that under the prevailing RSPV Regulations the maximum capacity for installation of rooftop solar system has been capped at 1 MW. But the petitioner has sought relaxation in this limit under “power to relax” clause of the Regulations.
  2. The petitioner has contracted demand of 22 MVA with KESCO and is supplied through two dedicated 132 KV feeders. Further, it has already got the approval from UPPTCL to enhance its contracted demand to 47 MVA. At present, average monthly consumption of the petitioner is to the tune of 60-70 Lakh units.
  3. It is submitted that average and maximum load of the petitioner is much higher than 5 MW but during off-days but for some sporadic instances the load may go below 5 MW and it is only in this condition the excess generation from solar plant shall be fed to the grid.
  4. Considering the fact the matter pertains to UPPCL and UPNEDA also, the Commission had suo-moto decided to implead both of them in the case.
  5. In the first hearing held on 03.05.2017, the Respondents UPPCL and UPNEDA requested for the copy of the petition and sought time to make their submission in the matter. The Commission directed the petitioner to provide copy of the petition to both the respondents and directed the respondents to file their submission within 10 days.
  6. The petitioner submitted the order of Odisha Electricity Regulatory Commission dated 19.08.2016 in the matter of “ net metering/ bi-directional metering and their connectivity with respect to solar project”. Para 1(vi)(c) of this orders states as follows:  
  
*“ there is no cap on the capacity of solar installation at a particular consumer level as long as it is within the limit of the connected load/75% of the transformer capacity. The earlier restriction of 1 MW capacity at a single location is removed.”*
  7. UPNEDA pleaded in favor of the petitioner and cited that advisor (NSM) to MNRE vide its letter dated 17.04.2017 has also requested UPNEDA to facilitate the petitioner for setting up of instant project.
  8. UPPCL submitted that prima facie it has no objection to installation of 5 MW rooftop systems under RSPV Regulations but technical feasibility needs to be established while installing the system.
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9. The Commission observed that due to their inherent nature of job many Government installations like Defence happen to possess vast parcel of land. In these cases, there exists considerable potential for installing solar power systems which can be harnessed to meet local in-house demand. Further, also considering the fact that in instant case, the petitioner has connection through dedicated transmission system of 132 KV, capping limit of 1 MW on the rooftop solar system, which is well below its (sought) contracted demand of 47 MVA, may be relaxed.
10. Considering the above request of the petitioner and UPNEDA's support to their case, the Commission decides to invoke its "power to relax" under clause 16 of RSPV Regulations and relaxes the maximum limit of 1 MW on setting up solar plants under RSPV Regulations and allows the petitioner to install 5 MW rooftop solar system under RSPV Regulations subject to confirmation of feasibility by UPPCL/UPPTCL.
11. The petition is disposed of.

(S.K. Agarwal)  
Member

(Desh Deepak Verma)  
Chairman

Place: Lucknow  
Dated: 01.06.2017



Clarification - 01						
NIT - SECI/C&P/OFBK5/062017 dated 21/07/2017						
Setting up of 5 MW at Ordnance factory kanpur under VGF scheme						
Sr. No.	Ref. Section	Point	Title		Questions from Vibgyor Energy	clarification
1	Section 2		Inter-connection point / Delivery /Metering Point		"shall mean the point at the 11 kV switchgear at the load centre of OFC, where the power from the solar power Project is injected" contradicted with 'Ref. Point 3.3 Project Scope and Technology selection' which says that evacuation is at 33 kV & transformer requirement is also 33 kV does it mean Sub station is at 11 kV sub station?	Please refer Amendment01
2					If metering is done at delivery point whether ABT meter require at Site also? Please clarify	Yes meter is required and payment will pe paid by SPD as per Amendment01
3	Section 3	3.3	Project Scope and Technology selection		Kindly clarify the Arrangement	All the said Arrangements are in the SPD scope
4	Section 3	3.3			In Ref Point 3.3 whether	
5					* Land Leveling is required	
6					*Any drainage to be made	
7					*Any Boundrywall is required	
8	Section 3	3.32	Method of Submission of Response to RfS by the bidder		"The Tender Processing Fee is exempted for MSME Vendors registered under NSIC/ Udyog Aadhaar Category only. In order to avail the exemption in Tender Processing Fee in case of consortium/ JV, all the members should be registered as MSME Vendors under NSIC/ Udyog Aadhaar Category."	All the partners of JV must be registered in MSME for exemption of Processing fee And EMD Amount
9					Please clarify whether EMD/Tender Fee is exempted or not?	Exempted only for the MSME vender either NSIC/Udyog Aadhar
10			Module Make		Can we use International Make Module??	Yes
11					Can we have the Map of the Identified Land and the distance of the Land from the Delivery Point?	Please refer Amendment01
12					What will happen if there is a grid outage. Will there be a deemed generation clause part of the PPA agreement?	No
13			Provide metering arrangement at 33 kV voltage level		Confirmation for availability of Spare Bay or Bay extension. Also, 33 kV evacuation shall be overhead lines.	Bay extension as per the attached Annexure- A shall be done by SDP
14					Should metering be at plant end and not sub-station end.	As per the attached Annexure- A Metering shall be done at substation end
15			Setting up of the evacuation network up to the 33 kV switchgear at the load centre of OFC, Kanpur.		Right of Way for transmission lines shall be provided by OFC	Right of way will be facilitate by OFC, Kanpur
16					Please clarify if the minimum annual CUF shall be -15% of declared value or 15%.	Yes
17					Please confirm that excess generation is generation beyond +10% of declared value.	Yes

18			Selection of Successful Bidders: The table in column 'Scenario - 2', L1 - INR 5.26 (discounted tariff) appears above L2 INR 4.75 (discounted tariff), which seems to be not in sync with text	Please clarify	Please see in Amendment01
19			Fencing, land levelling, compaction	OFC shall provide the security and obstruction free (tree, shrubs, etc.) clear land	All are in SPD scope
20			Construction of water connection	OFC shall provide for the water requirements to the plant	All are in SPD scope
21			Details pertaining to site contour and load data of OFC have been uploaded on the website <a href="https://www.tcil-india-electronictender.com">https://www.tcil-india-electronictender.com</a>	Request you to please upload the same again	Please see the Amendment01
22				Details of LD penalty and AEG penalty.	As per original tender document
23				Relax on Ceiling tariff /Kwh from Rs.4.5/Kwh to Rs.6/Kwh	Original tender document shall prevail
24				Clarity on Success fee– when the Success fee gets released	This success fee is non refundable
25				Relax on CUF during deemed generations	original tender document condition shall prevail
26				Details for Scope –	
27				For water and electricity during installations	All are in SPD scope
28				Clarity on PBG– when the PBG gets released	As per mentioned in tender document
29				Relax on CUF from 19% for 1 <sup>st</sup> year to 16%	original tender document condition shall prevail
30				Details of site drawings, connectivity, Site co-ordinates of Site.	Please see the site layout as per Amendment01 and coordinates has already mentioned in clause 3.3
31			"Inter-connection point / Delivery /Metering Point" shall mean the point at the 11 kV switchgear at the load centre of OFC, where the power from the solar power Project is injected3.5. Solar power Project shall be of 5 MW AC capacity at delivery point i.e. at the interconnection point of 33 kV switchgear at the load centre of OFC.	Request to clarify the interconnection point for the project.	Please see as per Amendment01
32			Connectivity with the Gridi) The plant should be designed for interconnection with the 33 kV switchgear at the load centre of OFC at the voltage level of 33 kV or above.	Since the plant has to be designed to be interconnected with switchgear at the load centre of OFC, application for Open Access and any charges related to Open access, if applicable, including but not limited to any Transmission charges & losses, wheeling charges & losses, shall be applicable to OFC.The draft PPA should also be ammended to reflect the same under OFC responsibilities.	Please see the Annexure-A as per Amendment01

33			The successful SPD shall have to demonstrate /infuse capital in the form of his own Equity for an amount of at least Rs.1.5 Cr/MW. The remaining amount can be raised as loan from any source by the SPD.		We request that the capital structure & timing of the equity infusion should be in line with capital / financing structure in discussion with the lenders of the Project.2.It has been observed that most of PPA's don't have such condition for minimum equity requirement and timing of infusion of equity into the project at the time of signing of PPA. We will comply with the condition related to financial closure of the project in line with the PPA Requirement. Reason: Such condition will be financially onerous to the developer and will lead to lesser flexibility in terms of financial structuring of the project.	original tender document conditions shall prevail
34			SECI shall charge a success fee of 3% plus applicable GST of the nominal project cost for the services provided in respect of the project to SECI towards administrative overheads, liaising with State Authorities, Discom/ Successful bidder shall be required to pay a Success Fee based on nominal project cost of Rs. 530.02 lakh per MW or the project cost as determined by CERC whichever is lower.		The success fee should be in line with latest seci tenders @ 0.2% of normative capital cost of CERC i.e. Rs. 530.02 lakh per MW.As per the CERC RE Tariff Regulation 2017, only project specific cost shall be determined for Solar PV projects. Request you to clarify the basis of calculating the Success Fee in such case.	As per mentioned in tender document
35			Any excess generation may be sold directly to the Discoms by the developer or the defence organization may buy the entire power and sell the surplus power to the Discoms at its end		Any excess generation should be bought by OFC at the same PPA tariff	please see the Annexure-A as per the Amendment01 issued
36			The arrangement of connectivity can be made by the SPD through a dedicated transmission line which the SPD may construct himself or get constructed by STU or Discom or any other transmission agency. The entire cost of transmission including cost of construction of line, wheeling charges if any and losses etc. from the Project upto the Delivery Point will be borne by the SPD and will not be met or reimbursed by SECI/OFAJ.		Please clarify distance from substation and length of transmission line	GPS coordinates mentioned in the layout as per Amendment01
37			The SPD selected based on this RfS is required to sign PPA with OFC within 30 days after the issue of LOI. In case, OFC, Kanpur offers to execute the PPA with the Selected Bidder and if the Selected Bidder does not submit the requisite documents as per Clause 3.19 or does not meet eligibility criteria upon submission of documents or does not execute the PPA within the stipulated time period, then the Bank Guarantee submitted towards EMD shall be encashed by SECI. SECI reserves the right to allocate the project to the next eligible bidder shortlisted based on the reverse auction process, provided the next eligible bidder matches the L1 VGF/discounted tariff quoted by the SPD originally awarded the project.		Request to recheck the clause 3.19 referenced here as clause 3.19 mentions about shareholding and nothing regarding requisite documents mentioned.Also the possibility of delay in executing the PPA owing to delay from OFC should be considered before encashing the EMD	Please see the Ammendment01

38			The SPD selected based on this RfS is required to sign PPA with OFC within 30 days after the issue of LOI. In case, OFC, Kanpur offers to execute the PPA with the Selected Bidder and if the Selected Bidder does not submit the requisite documents as per Clause 3.19 or does not meet eligibility criteria upon submission of documents or does not execute the PPA within the stipulated time period, then the Bank Guarantee submitted towards EMD shall be encashed by SECI. SECI reserves the right to allocate the project to the next eligible bidder shortlisted based on the reverse auction process, provided the next eligible bidder matches the L1 VGF/discounted tariff quoted by the SPD originally awarded the project.		Please clarify in which case such a possibility of allocation to next eligible bidder would arise?The allocation to next eligible bidder should be at his last quote in Reverse auction rather than matching L1 VGF/ discounted tariff.	Please see as per the ammendment01
39			Qualification Requirement		There is no Net Worth Criteria to participate in the BID process. Please include this criteria in the bidding process to eliminate the non Serious Bidders in the Bid	As per mention in tender document conditions shall prevail
40			"Inter-connection point / Delivery /Metering Point" shall mean the point at the 11 kV switchgear at the load centre of OFC, where the power from the solar power Project is injected (including the dedicated transmission line connecting the solar power project with the interconnection point). Metering shall be done at this interconnection point where the power is injected,		The project scope is indicating evaucation/Tie up at load center at 33kV. Please confirm evacuation voltage.	Please see the Amentment01
41			The SPD will sell the power to OFC and surplus power, if any, may be sold directly to the Discoms by the SPD or OFC may buy the entire power and sell the surplus power to Discoms at its end.		Please confirm in case of selling power to DISCOM/ reverse power flow; Shall necessary protection be required as per DISCOM approved specification?	Please see the Annexure-A of Amentment01
42			OFC shall facilitate the necessary permits and clearances required for construction and operation of the Solar Projects		Please confirm if DISCOM approval shall be required before tapping in load center.	Please see the Annexure-A of Amendment01
43			The plant should be designed for interconnection with the 33 kV switchgear at the load centre of OFC at the voltage level of 33 kV or above. Detailed layout of the proposed connectivity plan is enclosed at Annexure-F.		Please share connectivity plan and if spare panel is available/Replica panel is to be place inside load center	Yes
44			The land for the Project shall be made available to the Project developer on 'as-is where-is basis', by OFC through 'Right-to-Use' mechanism on non-chargeable basis		Please share the draft land agreement that would be signed between OFC and selected bidder.	Please see the Amendment01
45					Please share Clear Project Layouts (Land & Pooling Substation), AutoCad Drawings and Soil and Contour Survey Reports.	Please see the Amendment01
46					Please share load details of factory. Is there any specific period when factory load will be lesser during daytime??	Please see Annexure-A of Amendment01