

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)**

No. 2009/Elect(G)/150/13/Pt.

Dated: 30.11.2015

**General Managers,
All Indian Railways,
Production Units.**

Sub: Model Bid document for harnessing 50 MWp solar energy on rooftops of Railways buildings/stations/platforms/ sheds/ workshops or any other suitable roof top space.

**Ref: (i) Board's letter no. 2012/Elect(G)/150/4/Pt.IV
dt.10.03.2015.**

**(ii) Board's letter no. 2009/Elect(G)/150/13/Pt. dt.
18.11.2015.**

Kindly refer to Board's letters under reference vide which allocations were made for execution of 50 MWp solar power on roof top of Railway premises and thereafter, guidelines regarding harnessing of solar energy on roof top of Railway buildings through developer mode were issued with the approval of Board (ML, ME & FC) for calling open bids from interested developers. In this reference, Model Bid Documents, including RFQ, RFP along with Power Purchase Agreement (PPA) have been developed based on already approved documents of Ministry of Railways, in consultation with Finance Directorate. A copy of the same is enclosed and has also been uploaded on the Indian Railways website under News and Announcements/EEM Directorate by the name of 'Model Bid documents for harnessing solar energy on rooftops of Railway buildings/stations/platforms/sheds/workshops or any other suitable roof top space'. In this case the investment will be made by the developer and Railways will be buying the power for a period of 25 years, at the end of which, the solar power plant will be transferred to Railways.

2.0 These documents should be used to call open bids from interested developers for installation of solar power plants on the rooftop of Railway buildings/stations/platforms/sheds/workshops or any other suitable roof top space without any charge, whatsoever it may be, with utilization of complete energy by Railways, through long term Power Purchase Agreement (for per unit cost of solar power) for a period of 25 years.



3.0 The estimated project cost will be based on the bench mark cost communicated by MNRE vide letter no. 03/20/2014-15/GCRT dated 11.12.2014 i.e. Rs. 8.0 crores per MWp. This should form the basis for tender finalization as per extant delegation of power on works matters. The Tender documents are based on already approved documents of Ministry of Railways including the technical & financial criteria. During the pre bid consultations, Railways may provide clarifications if some bidders have any queries, however no change inconsistent with the policy issued by Board vide letter dt. 18.11.15 is permitted. Railway may allow only changes of minor nature to the bid document which are project specific, or based on suggestion received during pre bid meeting on these documents. These changes will be made with prior finance concurrence and the approval of Tender Accepting Authority.

4.0 It is clarified that the technical and financial criteria are as per Sudhir Chandra committee report as per which all certificates from private individuals only should be excluded for the purpose of credentials.

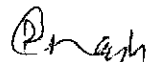
5.0 Railways should ensure that to get benefit of scale each project should preferably be of 1 MWp, but not less than of 500 KWp. In a project, more than one sites/locations can be clubbed, however, no single location should be less than 50 KWp capacity.

6.0 Such solar plants should be put only in States having net metering regulation issued by the State Regulatory Commission.

7.0 Progress/Feedback on action taken in this regard should be sent to Board's office on monthly basis.

8.0 This issues with the concurrence of Finance Directorate and approval of Board (ML).

Encl: As above


(Pranay Kumar)
Director Electrical Engg.(PS)
Railway Board

No. 2009/Elect(G)/150/13/Pt.

Dated: 30.11.2015


Copy to:

1. FA&CAO, All Indian Railways and PUs.
2. Deputy Comptroller and Auditor General of Indian Railways, Room No. 224, Rail Bhawan, New Delhi.


For Financial Commissioner/Railways

Copy to the following for information and necessary action:

1. EDF/PPP, Railway Board, New Delhi
2. Director General RDSO, Lucknow.
3. CEEs, All Zonal Railways and PUs
4. CEE/CORE, Allahabad
5. ED/EEM, RDSO, Lucknow.
6. Director General, NAIR, Vadodara.
7. Directors, IRICEN/Pune, IRIEEN/Nasik, IRISSET/Secunderabad, IRIMEE/Jamalpur.
8. All Railway workshops.
9. DME/C&IS for uploading the same on website


(Pranay Kumar)
Director Electrical Engg(PS)
Railway Board

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No. 2012/Elect(G)/150/4 Pt.IV

Dated: 10.03.2015

Chief Electrical Engineers,
All Railways

Sub: Harnessing Solar Energy of 50 MWp on rooftop of Zonal Railways with CFA from MNRE.

Ministry of New & Renewable Energy (MNRE) have communicated in principle approval of the MNRE for allocation of 50 MWp capacity with estimated Central Financial Assistance (CFA) of Rs. 60 crores (15% of the benchmark cost of Rs.8.00 crore per MWp i.e. Rs.1.2 crore per MWp) for installation of solar roof top projects subject to following conditions:

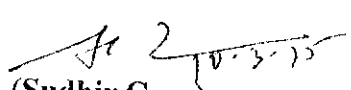
- i) Ministry of Railways will implement the project on open bidding basis and the maximum CFA will be limited to 15% of the benchmark cost or the cost arrived with bidding whichever is less. The actual CFA will be formed based on the tender cost.
- ii) Only indigenously manufactured PV modules will be used.
- iv) 15% subsidy will be applicable only if the tariff already been paid by the organisation is below Rs.7.71 per kWh.

2.0 In this reference

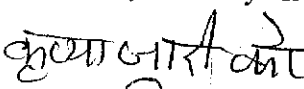
- i) Earlier in response to the CRB's Do to General Managers, Zonal Railways had indicated the roof top space available for providing solar power units. Accordingly railways will install these units and will utilise the complete generated power for its own use.
- ii) For doing so Railway will provide roof top Railway building/Rly. stations/Railway platform shed/workshop, shed or any other suitable rooftop space for solar units to the developers who will invest for putting up solar unit. The VGF from MNRE will be passed to the developer on successful completion of the unit.
- iv) The complete power will be purchased by the Railways and a long term Power Purchase Agreement (PPA) for 25 years will be signed by Zonal Railways for a fixed per unit rate of power as arrived in the open bidding process, with the developer offering lowest rate.
- v) Railways as per annexure are allotted solar capacities to be installed from 1 MW to 5 MW depending upon the areas indicated by them. Railway should ensure that to get benefit of scale each project should preferably be of 1 MWp, but not less than of 500 KWp. In a project more than one sites/locations can be clubbed, however, no single location should be less than 50 KWp capacity.
- vi) To facilitate ease of disbursement of subsidy from MNRE, four Railways are proposed to co-ordinate for obtaining necessary documentation for each project and approaching MNRE for obtaining VGF for further disbursement to developers.

4.0 To facilitate Railways a model tender document with PPA is being prepared in Board. Only after issue of the same, railways should process for open tenders. While this activities is in progress Railways are being intimated about the capacity allocations as per ann. 1 with a view so that Railways can plan and identify the locations/group of locations, their loads, where these plants are to be installed, as per the guidelines of Ministry of Railways and Board with a view that all the power will be used/

Ministry of Railways
Railway Board
प्रतिष्ठान/अहित जारी
Issue with Enclosure
हस्ताक्षर
Signature.....
जारी की तिथि
Date of Issue.....


(Sudhir Garg)

Executive Director (EEM)
Railway Board


8
11/3/15

Annexure-I

SN	RLY.	Solar plant capacity allocated in MWp	Co-ordinating Railways for subsidy disbursement
✓1	NR ✓	5	NR
2	NCR	1	
3	NER ✗	2	
4	NWR	1	
5	DLW	2	
6	RCF	2	
7	DLMW/PTA	2	
	SUB TOTAL	14	
✓8	CR ✓	4	CR
✓9	WCR ✓	3	
✓10	SECR	1	
✓11	WR ✓	4 ✓	
	SUB TOTAL	12	
✓12	SR ✓	4	SR
✓13	SCR ✓	4	
✓14	SWR	1	
15	RWF	2	
16	ICF	2	
	SUB TOTAL	13	
17	SER	2	SER
18	ER	2	
19	NFR	2	
20	ECR	1	
21	CLW	1	
22	Dankuni W/S	2	
	SUB TOTAL	11	
	TOTAL	50	

SM-2 SM 9/A

SM-9

भारत सरकार

नवीन र नवीकरणीय ऊर्जा मंत्रालय

Government of India

MINISTRY OF NEW AND RENEWABLE ENERGY

ब्लॉक नं. 14, केन्द्रीय कार्यालय परिसर, लोदी रोड, नई दिल्ली-110003

BLOCK NO. 14, C.G.O. COMPLEX, LODI ROAD, NEW DELHI - 110 003

Fax : 011-24361298

Telegram: RENEWABLE

Tele fax: 011-24363035

Email: aktripathi@nic.in

सं.

No. 03/20/2014 -15/GCRT

दिनांक

Dated 11.12.2014

To,

Shri Sushil Kumar

Director Elect. Engg. (PS)

Ministry of Railways

Railway Board

Room No. 164, Rail Bhawan,

Raisena Road, Delhi - 110001.

Subject: Installation of aggregate / cumulative 52 MWp equivalents Grid Connected Rooftop Solar Photovoltaic Power Plants on the roofs of Government/ Commercial / Institutional / Residential / Industrial buildings located in various States across the country through Multi Government Agencies/PSUs.

Sir,

The Ministry has received approval for grid connected rooftop solar power plants under NCEF funding for installation of aggregate 52 MWp capacity through Multi Government Agencies/PSUs in this regard the sanction vide no. 5/38/2013-14/RT dated 19th September 2014 may also be referred to (copy enclosed). In continuation to this approval and with reference to your letter/proposal vide no. 2012/Elect(G)/150/4Pt.IV Solar Mission dated 24.10.2014, wherein, a proposal of 150 MWp was submitted for the installation of grid connected rooftop project at your various locations. The in-principle approval of the Ministry is conveyed for allocation of aggregate capacity of 50 MWp with estimated CFA of ₹ 60 crore (15% of the benchmark cost of ₹ 8.0 crore per MWp i.e. ₹ 1.20 crore per MWp) for installation of grid connected rooftop projects.

2. This in-principle approval will be subjected to the following conditions:

- Ministry of Railways will follow all terms and conditions and guidelines of the above referred sanction (No. 5/38/2013-14/RT. dated 19th September 2014 except for the subsidy amount) and the 'Grid Connected Rooftop and Small Power Plants Programme' vide no. 30/11/2012-13/NSM dated 26th June 2014.
- All projects will be installed as per minimum technical requirements/standards for SPV systems/plants given in sanction no. 30/11/2012-13/NSM dated 26th June 2014 in vogue and amended time to time.

Contd...

- Only indigenously manufactured PV modules will be used in the project.
 - The specific projects proposals will be submitted in the prescribed format as given in the website of MNRE (www.mnre.gov.in) and revised time to time for sanctioning the project.
 - Ministry of Railways will submit consent letters from concerned DISCOMs indicating their willingness/consent for trade of electricity generated by these SPV for rooftop grid connected plants along with DPRs/Detail proposals. In case the power is to be utilized by railways, their commitment letter may be sent with reference.
 - Ministry of Railways will implement the project on bidding basis and the maximum CFA will be limited to the 15% of the benchmark cost or the cost arrived with bidding whichever is less. The actual CFA will be firmed up based on the tendered cost. The release of CFA will be subject to availability of funds.
 - Proper metering arrangement may be incorporated so that the generation data from the proposed SPV power plants will be available.
 - The 15% subsidy will be applicable only if, the tariff already being paid by the organization is below ₹ 7.71 per kWh. The reference date will be the date of application.
3. You are therefore requested to take all necessary actions for implementation of above grid connected rooftop solar project at **your various locations**. Kindly send your confirmation and submit the specific proposals within in this allocated capacity for further consideration in this Ministry.
4. This issues with the approval with the approval of Secretary, MNRE.

With regards,

Yours faithfully,



(Dr. Arun K. Tripathi)

Director

(M): 09810880378

Enclosures: As above