



BEFORE THE PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
CHANDIGARH

FILING NO.....

IN PETITION NO.....

IN THE MATTER OF:

Petition for the approval of the work of installation of Roof top Solar Plant on roofs of control rooms of various 400/220/132 KV Sub stations of PSTCL & SLDC building as Capital Work in the MYT Control Period FY 2020-21 to FY 2022-23 under Regulation Section 62 and 64 of the Electricity Act, read with Regulation-9 of PSERC terms and conditions for determination of Generation, Transmission, wheeling and retail supply tariff) Regulations.

AND

IN THE MATTER OF:

Punjab State Transmission Corporation Limited.
Regd. Office: PSEB H.O. The Mall, Patiala.



AFFIDAVIT

I, Jatinder Tajeja, son of Sh. Radhe Sham aged 44 residing at Patiala do hereby solemnly affirms and states as under:

I am the CAO/Finance and Audit of Punjab State Transmission Corporation Limited, the petitioner in the above matter and am duly authorized by the Corporation to make this affidavit on its behalf.

The statements made in the petition are true to my knowledge and are based on the information collected from the concerned offices of the PSTCL and believe them to be true.

There is no case pending in any court of law with regard to the subject cited matter of the petition.


Contents of this affidavit
document have been read over to
the deponent He/She has accepted
the true & correct.


DEPONENT
CA. Jatinder Tajeja

VERIFICATION:

I, the deponent above named do hereby verify that the content of my above affidavit are true to my knowledge and belief and nothing material has been concealed there from.

Verified at Patiala on the day of 1st February, 2021.

Attested As Identified

NOTARY (Govt. of India)
Distt. PATIALA (Pb.)
01 FEB 2021


DEPONENT
CA. Jatinder Tajeja

**BEFORE THE PUNJAB STATE ELECTRICITY REGULATORY COMMISSION,
CHANDIGARH**

PETITION NO. of 2021

IN THE MATTER OF:

Filing of Petition for the approval of the work of installation of Roof top Solar Plant on roofs of control rooms of various 400/220/132 KV Sub stations of PSTCL & SLDC building as Capital Work in the MYT Control Period FY 2020-21 to FY 2022-23 under Regulation Section 62 and 64 of the Electricity Act, read with Regulation-9 of PSERC terms and conditions for determination of Generation, Transmission, wheeling and retail supply tariff) Regulations.

AND

IN THE MATTER OF:

Punjab State Transmission Corporation Limited
The Mall, Patiala-147001

.....Petitioner

Petition for the approval of the work of installation of Roof top Solar Plant on roofs of control rooms of various 400/220/132 KV Sub stations of PSTCL & SLDC building as Capital Work in the MYT Control Period FY 2020-21 to FY 2022-23 under Regulation Section 62 and 64 of the Electricity Act, read with Regulation-9 of PSERC terms and conditions for determination of Generation, Transmission, wheeling and retail supply tariff) Regulations.

MOST RESPECTFULLY SHOWETH:

1. The work of installation of Roof top solar plant of 1699kWp capacity on roofs of control rooms of various 400/220/132 KV substations of PSTCL & SLDC building (40 sites with capacity ranging 20 to 100kW), amounting to Rs. 10.15 Cr was submitted in Petition no. 19 of 2019 filed by PSTCL for Business Plan including Capital Investment Plan for MYT Control Period from FY 2020-21 to 2022-23.
2. Hon'ble Commission in its order dated 3.12.2019 on the said Petition, disallowed the scheme and remarked as under:-

"For scheme no. 6, i.e. for installation of solar panels for rooftops, the capital investment claimed by PSTCL has been disallowed. Although the Commission appreciates the initiative taken by PSTCL, the installation of solar panels on rooftops is for PSTCL's own use. Accordingly, the cost of this scheme cannot be passed on to the consumers. Therefore, PSTCL may conduct this work from their own budget."

3. PSTCL submits that it gets its capital and revenue expenditure reimbursed from PSPCL through tariff order. The capital expenditure of Rs. 6.21 Cr. (reworked) for this work, will lead to saving on account of electricity generation through Rooftop Solar (details at para 4 ahead), resulting in reduction of A&G Expenses. Hon'ble commission allows expenses on the basis of actual or normative which ever is lower. Hence, if in future A&G expnses are reduced, then it will reduce

the Tariff i.e overall tariff will be reduced and benefit for reduction in electricity charges will also go to the consumers.

4. The matter regarding installation of Rooftop Solar power plant was consulted with PEDA. The PEDA approved rate for FY 2020-21 as provided by PEDA is as under:

Category/Capacity of System	System Cost Rs. Per KW	AMC Cost Rs. Per KW	Total Cost Rs. Per KW	Remarks
Category I (1 to 10KWp)	37000	4000	41000	PEDA Service charges @ 5% will be extra
Category II (>10 to 20KWp)	35450	3550	39000	
Category III (>20 to 50KWp)	33630	3370	37000	
Category IV (>50 to 100KWp)	32720	3280	36000	
Category V (>100 to 500KWp)	31810	3190	35000	
Category VI (>500 to 1000KWp)	30900	3100	34000	

The saving calculations from installation of RTSP of 1699 KWp capacity on the basis of PEDA approved rates is done as under:

Capacity = 1699KWp

Cost per kWp as approved rates of PEDA = Rs. 37000 Category III (>20 to 50KWp)
 = Rs. 37000 * 978.6kW = **Rs. 3.62 Cr.**

= Rs. 36000 Category IV (>50 to 100KWp)
 = Rs. 36000 * 720.9kW = **Rs. 2.59 Cr.**

Total Capital Cost (A) = Rs. 3.62Cr + Rs. 2.59Cr = **Rs. 6.21 Cr.**

Average Generation for 25 years = 6.2 Cr kwh(@ 4 Units per KWp per day)

Cost of Power per kWh (Tariff) = Rs. 6.5/-

Total charges of Electricity for 25 years B) = Rs. 6.5 * 6.2 (Apprx) = **Rs. 40 Cr. (Apprx)**

Interest C) = **Rs. 7.25 Cr (Apprx)**

Considering 10.65% rate of interest, for a period of 18 years including 3 years of moratorium period

AMC for 25 years D) = **Rs. 2.93 Cr. Apprx**
 (Rs. 17250 per KWp for complete life span)

Bifurcation of Rs. 17250 i.e AMC cost per KWp for 25 years is as below:

- AMC* = As per prevailing guidelines of SECI, AMC for 5 years is included in the scope of contractor. AMC for remaining 20 years will be carried out by concerned P&M organization by procuring parts from market.

- AMC* includes Maintenance and repair charges of Inverter after warranty, charges for electricity consumed in cleaning and washing of solar panels, charges for maintaining electrical equipments used for cleaning and washing, maintenance and repair of PV cells after warranty, labour charges if any and other unforeseen charges.

➤ PV cells replacement/repair	= Rs. 12000
➤ Inverter repair/maintenance	= Rs. 3000
➤ Electricity consumption	= Rs. 400
➤ Electrical Maintenance	= Rs. 350
➤ Miscell. expenses like civil work, labour and service charges etc.	= Rs. 1500


In view of above estimation, PSTCL may be able to save **Rs.23.61 Cr.** Apprx. {B - (A+C+D)} from installation of RTSP of 1699 KWp capacity in 25 years. (i.e **Rs, 95 Lac Annually**)

5. It is submitted that last year, Department of New and Renewable Energy, (Energy Branch), Government of Punjab, has also issued a notification no. 18/7/2014-PE1/548 dated 03.03.2020 (Annex-I) I, vide which Installation of Rooftop Solar Photovoltaic Power Plant is made mandatory on existing Govt. Building/corporations/cooperativeDepartments/Boards/Agencies/NotifiedArea committee/Housing and Urban Development department.

PRAYER:-

In the facts and circumstances mentioned above, it is respectfully prayed that the Hon'ble Commission may be pleased to:

- i. Admit and take on record the present petition filed by PSTCL for the work of installation of Roof top solar plant.
- ii. To approve the work of installation of Roof top solar plant on roofs of control rooms of various 400/220/132 KV substations of PSTCL & SLDC building as Capital work in the MYT Control Period FY 2020-21 to 2022-23..
- iii. Pass such other further order(s) as the Hon'ble Commission may deem just in the facts of the present case.


Chief Accounts Officer/ (F&A)
PSTCL, Patiala.

CE/PS
CE/P&M
CE/SLDC
CE/HIS&D
JT Socy.
Sr. Xen/Tech

GOVERNMENT OF PUNJAB
DEPARTMENT OF NEW AND RENEWABLE ENERGY
(ENERGY BRANCH)

CMD (at Chand)

NOTIFICATION

No. 18/7/2014-PE/ 548'

Dated; Chandigarh 3/3/2020

In exercise of the powers conferred by Section 18 of the Energy Conservation Act 2001 (Central Act 52 of 2001), the Governor of Punjab hereby issues the following directions for efficient use of energy and its conservation in the State of Punjab.

The installation of Rooftop Solar Photovoltaic Power Plant in existing Govt. buildings/ Corporations/ Co-operative Departments /Boards/ Agencies/ Notified Area Committee/ Housing and Urban Development Department shall be mandatory as under:-

Sr. No	Category	Minimum Capacity of the SPV Plant.
1	Govt. buildings / Govt. Institute/ Govt. Universities/ Corporations/ Co-operative Departments / Boards / Agencies/ Notified Area Committee having sanctioned load upto 30 KW.	2 Kilo Watt peak (KWp) or 10% of Connected Load, whichever is higher, subject to the availability of Rooftop area.
2	Govt. buildings / Govt. Institute/ Govt. Universities/ Corporations/ Co-operative Departments / Boards/ Agencies/ Notified Area Committee having sanctioned load of greater than 30 KW.	5 Kilo Watt peak (KWp) or 20% of Connected Load, whichever is higher, subject to the availability of Rooftop area.

The Installation of Rooftop solar Photovoltaic Power plants for all the existing/ New Punjab State Govt. buildings is mandatory as per the rooftop area available and the electricity consumption of the Govt. building with following criteria:-

- (i) The maximum rooftop solar plant capacity permitted to be installed shall be as per Net Metering Regulations of Punjab.
- (ii) The height of module structure carrying solar panels shall not be covered towards the total height of the building as permitted by building bye Laws and no separate approval will be required from Housing and Urban Development Department/ Municipal Corporation/ Notified Area Committee subject to the total height of building including the height of module structure carrying solar panels within the height limit prescribed in Colour Coded Zoning Map (CCZM) of area and get clearance from authorized officer/ Airport Authority as per notification G.S.R. 751 (E) dated 30th September, 2015, if required.

18/7/2014-PE/548'

11-03-2020

at Chand

- (iii) The Punjab Energy Development Agency (PEDA) being a State Nodal Agency in the State shall set up Solar Power Plants as per MNRE, GOI specification & Standards through CAPEX or RESCO model.
- (iv) All the Govt. organizations/ boards/ Corporations/ PSU's shall ensure the compliance of above mentioned mandatory provision within Two years from the date of issue of the notification, at their own cost.
- (v) The systems installed shall strictly comply with the technical specifications and quality standards prescribed by the Ministry of New & Renewable Energy, Government of India from time to time.



Anirudh Tewari,

Principal Secretary to Government of Punjab
Department of New & Renewable Energy Sources

Dated, Chandigarh
24/02/2020

A copy of the above is forwarded to all the Special Chief Secretaries, Addl. Chief Secretaries, Financial Commissioners, Principal Secretaries, Administrative Secretaries, Head of the Departments, Commissioners of Divisions and Deputy Commissioners, Chairman/Managing Directors of Board/Corporations for information and necessary action.



Deputy Secretary, NRES

To

All the Special Chief Secretaries,
Addl. Chief Secretaries, Financial Commissioners,
Principal Secretaries, Administrative Secretaries
All Head of the Departments,
Commissioners of Divisions and
Deputy Commissioners, Chairman/Managing Directors of Board /
Corporations in the State of Punjab.

Endst. No. 18/7/2014-PE 1/ 549

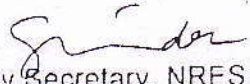
Dated; Chandigarh: 3/3/2020

Endst. No. 18/7/2014-PE 1/ 550

Dated; Chandigarh: 3/3/2020

A copy of the above is forwarded to The Controller, Printing & Stationary, Punjab, Chandigarh with the request that this notification may be

published in the Punjab Government Gazette and 20 copies thereof to be sent to this department.

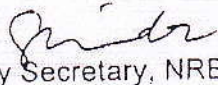

Deputy Secretary, NRES

Endsl. No. 18/7/2014-PE/ 551- 55

Dated: Chandigarh: 3/3/2020

A copy of the above is forwarded to following for information and necessary action.-

- 1) Chairperson, Punjab State Electricity Regulatory Commission, Plot No. 3, Sector 18 A, Madhya Marg, Chandigarh.
- 2) Chairman-cum-Managing Director, Punjab State Power Corporation Limited, The Mall, Patiala.
- 553 3) Chairman-cum-Managing Director, Punjab State Transmission Corporation Limited, The Mall, Patiala.
- 4) Chief Executive, Punjab Energy Development Agency, Chandigarh.
- 5) Chief Electrical Inspector, Punjab.


Deputy Secretary, NRES

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