

**BEFORE THE PUNJAB STATE ELECTRICITY
REGULATORY
COMMISSION, SITE NO- 3, BLOCK B, SECTOR 18-A,
MADHYA MARG, CHANDIGARH.**

Petition No. 07 of 2020.

In the matter of ;

Punjab Energy Development Agency

----- Petitioner

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Place: Chandigarh

Date: 04.08.2020


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Counsel for the Petitioner

BEFORE THE PUNJAB STATE ELECTRICITY REGULATORY
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Punjab Energy Development Agency (PEDA)

-----Applicant/ Petitioner

Rejoinder on behalf of the petitioner to the
reply filed by PSPCL.

A. Preliminary submissions:

1. That this Hon'ble commission vide order dated 02.07.2020 had directed PEDA to submit the Government letter for providing of 30% subsidy for solarisation of agriculture pumps and PSPCL to file an affidavit stating as to whether PSPCL shall purchase power from the projects under reference on the tariff determined by this Hon'ble commission. However, PEDA has already submitted the Government letter. PSPCL filed its reply to the captioned petition and now has filed the additional affidavit dated 27.07.2020 received by the Petitioner on dated 03.08.2020, wherein PSPCL has agreed to purchase power from the projects setup under the PM-KUSUM Scheme at the tariff determined by this Hon'ble Commission.
2. That the petitioner humbly submits that before filing the captioned petition, the petitioner had duly obtained consent from respondent PSPCL with regard to the parameters mentioned in the captioned petition qua the projects under reference, to which PSPCL had duly consented upon other parameters and had proposed to have CUF at the rate of 19%. However now at the time of filing the reply, PSPCL is disregarding its own consent and has made an attempt to stall the entire scheme, which is in fact a beneficial scheme for the entire State.
3. That the petitioner places its complete reliance upon the captioned petition filed by the petitioner before this Hon'ble Commission except the changes consented to, which may kindly be read as part and parcel of the present rejoinder.

4. That the petitioner denies each and every contents of the reply filed by PSPCL except the averments specifically admitted here in after in the present rejoinder as well as in the captioned petition.

B. Para wise comments to the reply :

1-4 That the contents of Paras 1 to 4 of the reply filed by PSPCL needs no comments being factual status of duties of PEDDA, PSPCL and details of PM-KUSUM Scheme and filing of the present petition.

5 That in response to Para 5 of the reply filed by PSPCL it is submitted that

A) This Hon'ble Commission had adopted the CERC RE Tariff Regulations 2017-20 for the state of Punjab and is accordingly determining the yearly generic tariff for RE Technologies. These Regulations provide that tariff for solar projects will be on Project specific basis. However except for capital Cost and Yearly Operation & Maintenance Charges, other generic parameters for determination of tariff for solar projects are available in the regulations and suomotu orders.

B) It is further submitted here that as already brought out in the Petition, PM-KUSUM Scheme Component - C provides for solarization of individual grid connected agriculture pumps where the installed capacity of solar PV system for each individual system is already prefixed based on existing motor capacity of the pump. Similarly Scheme also provides for subsidy and thus Financing Pattern of the Capital cost and Depreciation rate (Advance against Depreciation to repay the Debt) is also predefined. The petition proposes the typical parameters for solar system of 10 KW / 7.5 HP motor pump set which are mostly prevalent in Punjab. Therefore such parameters have been taken as per the scheme for 7.5 HP motor pump set and proposed for determination of feed in tariff.

C) It is further submitted that regarding Operation & Maintenance Charges, PM-KUSUM Scheme provides for 5 years AMC in the scope of EPC contractor and thus no Operation & Maintenance Charges

are to be borne by the farmers for first five years and for rest of the period, the charges have been taken as per the neighboring State of Rajasthan where RERC has already determined the feed in tariff for KUSUM Scheme Component C.

D) It is further submitted that the Petition was drafted and submitted in the last quarter of the year 2019-20 and parameters relating to Interest on Debt, Repayment period of Debt, ROE, Discount factor, yearly escalation rate in Operation & Maintenance Charges etc. are based on the CERC RE Tariff Regulations for the control period 2017-20 and suo-motu order for determination of tariff for the year 2019-20, which are already adopted by the Hon'ble Commission and generic parameters like Debt Equity Ratio, Interest on Debt, Debt repayment period, ROE, Income Tax Rates and useful life/Tariff period have been adopted accordingly.

E) It is further submitted that CERC has notified the RE tariff Regulations for the Control Period 2020-23 on 23.06.2020 as per which some parameters provided in the Petition will change. Further, CERC has also notified the parameters for the year 2020-21 in the Petition No. 13/SM/2020(Suo-motu) for determination of Generic Tariff vide order dtd. 21.07.2020.

F) It is further submitted that as per past practice, it is expected that the RE Tariff Regulations for the period 2017-20 and SuoMotu Order for determination of Generic tariff for 2020-21 will be adopted by this Hon'ble Commission in due course of time. The comparison of such parameters as applicable to this Petition are brought out in paras below.

G) It is further submitted that in Component -C, Hon'ble Commission is requested to determine Feed-in-Tariff which will be applicable for sale/purchase of surplus power without any discount/reduction.

6 That in response to Para 6 of the reply filed by PSPCL it is submitted that the Petitioner's counter reply on the points raised for CUF,

Depreciation and Income tax areas given in paras below, which may kindly be read as part and parcel of the instant para.

- 7 That in response to Para. 7 of the reply filed by PSPCL it is submitted that PSPCL has not disputed the CUF of 17.14% being achieved from existing operating 43 numbers smaller solar power plants in Punjab (Based on net power exported to state grid) from which PSPCL is procuring power under the PPAs already signed.
- 8 That in response to Para 8 of the reply filed by PSPCL it is submitted that The Petitioner is not in agreement with the proposal of PSPCL to consider higher CUF based on different orders as discussed below:-

A) The Respondent PSPCL has extracted the provisions of CERC RE Tariff Regulations 2020-23 which provide that the minimum CUF for a Solar PV Plant will be 21%. The Explanatory Memorandum for adopting 21% CUF gives the justification which is based on analysis of such plants funded during last 3 years and the CUF is as under:-

Capacity of plant	No. of Projects analyzed	Min CUF	Max CUF
Up to 10000 KW	17	16%	27%
10000 to 50000 KW	32	17%	28%
50000 to 100000 KW	17	18%	29%
100000 to 150000 KW	3	23%	29%
More than 150000 KW	9	19%	28%
Capacity of plants proposed under the Petition i.e. Component C			
Capacity 4, 7 and 10 KW	Pumps covered : 3900	Proposed CUF : 17.14%	

- B) As against the above analysis based on which CERC has decided the minimum CUF as 21%, the capacity of individual solar panels for each tube-well is only 4 to 10 KW i.e. the plants under consideration are 100 to 2500 times smaller and thus cannot be compared.
- C) Further, the Minimum CUF for up to 10000 KW projects has indeed been worked out as 16% in the analysis which may be

certainly of the smaller capacity projects i.e up to 4000Kw. Therefore average CUF for 4 to 10 KW projects as 17.14% being actual of power projects of capacity 1000 to 4000 KW is fully justified.

D) It is also a known fact that projects considered by CERC are mostly from solar parks of Rajasthan and Gujarat where irradiation is highest. Where-as in Punjab the irradiation is lower and CUF in Punjab is bound to be low.

E) The higher capacity projects are generally being installed with solar tracker facility which have higher CUF whereas the solar panels under consideration will be fixed tilt arrangement where the CUF will be lower.

F) Further, the orders dated 20.12.2019 of HERC referred to in this para of reply is on the Petition filed for deciding the generic tariff for projects of 500 KW to 2000 KW under Component A of the PM-KUSUM scheme and is not relevant to this Petition.

9 That in response to Para 9 of the reply filed by PSPCL it is submitted that these being of small capacity projects, technological advancements and material up-gradation cannot have material difference in the CUF. Moreover, the outages of these projects are likely to be higher as these are to be operated by farmer itself having limited technical knowledge.

10 That in response to Para 10 of the reply filed by PSPCL it is reiterated that the petition was prepared and filed much before the notification of RE Tariff Regulations 2020.

11 That in response to Para 11 of the reply filed by PSPCL, it is submitted that section 61 of the Act provides that State Commission shall be GUIDED by CERC Regulations. Thus the same are not mandatory.

12 That in response to Para 12 of the reply filed by PSPCL it is submitted that the Petition is not for seeking Project Specific tariff but levellised feed in tariff as is evident from the subject and prayer contained in the Petition.

- 13 That in response to Para 13 of the reply filed by PSPCL it is submitted that in view of the submissions in paras above, the Petitioner requests that CUF of 17.14% as proposed may please be retained.
- 14-17 That in response to Paras 14-17 of the reply filed by PSPCL it is submitted that CERC has re-fixed the Debt repayment period as 15 years and the debt as per Petition being 75% of the capital cost, consequently 75% of the depreciation has to be claimed in first 15 years as Advance Against Depreciation to repay the debt as per RE Tariff Regulations 2020-23 and balance 15% (90% - 75%) during the remaining life of the project.
- 15 That in response to Para 15 of the reply filed by PSPCL it is submitted that PSPCL has proposed Depreciation rate of 4.67% for first 15 years and 1.9% for balance 10 years as per which the assets have been proposed to be depreciated for 89% of the cost whereas the Regulations clearly say that assets are to be depreciated for 90% of capital cost assuming 10% as salvage value. Accordingly, the Depreciation as per CERC norms works out to 4.67% for first 15 years and 2% for the balance life of 10 years. However in the captioned petition the debt equity ratio is 75:25 and depreciation for first 15 years comes out to be 5% and 1.5 % for the balance life of 10 years.
- The Petitioner prays for adopting Debt Equity Ratio of 75%-25% (against 70% - 30%) repayment period as 15 years (against 13 years) and consequently Yearly Depreciation rate of 5% for first 15 years and 1.5% for remaining 10 years.
- 18-22 That in response to Paras No. 18-22 of the reply filed by PSPCL it is submitted that the Income Tax component mentioned in the petition filed by petitioner was based upon the CERC order for determination of tariff for the year 2019-20, as the same was prevailing at the time of filing the instant petition. It is further submitted that the projects under reference are to be setup by individual farmers having PSPCL agriculture power connection for irrigation and not by corporate entities. Thus, revenue earned from sale of surplus solar power will be treated as "Income from Other Sources" and not as "Agriculture


Income". Thus, the income tax rates applicable to individuals as per the finance act shall be levied upon respective farmers depending upon the income already accruing, if any, from other sources apart from agriculture income which is exempted. Since the income from the sale of energy produced from the proposed projects shall be "income from other sources" of the farmer apart from agriculture income, thus the rate of income tax would vary from Farmer to Farmer. Since no benchmark rate of Income tax can be fixed simpliciter, thus, the petitioner proposes that an average rate of income tax slabs $(5+20+30/3 = 18.33\%)$ be taken and grossed up $(14\%/(1-18.33\% = 17.14\%))$ to render 17.14 % of yield in terms of ROE so as to have net of 14% ROE.

- 23 That in response to Para 23 of the reply filed by PSPCL it is submitted that comparative chart of parameters proposed in petition and now revised as per CERC regulations / orders are attached as **Annexure P-5** and it is prayed before this Hon'ble Commission to take the above submission into consideration including the general / financial parameters as per RE Tariff Regulations 2020 / suomotu order where ever proposed and others as actual for the scheme/Punjab specific and determine the levelized feed in tariff for the proposed solarisation of grid connected agriculture pumps in Punjab under PM-KUSUM Component-C, as prayed for in the captioned petition.

Further it is submitted that as per MNRE, GOI guidelines, the implementation process of the scheme is to be completed by September 2020, however due to pandemic Covid-19 situation, the implementation process shall now be completed by December 2020, thus, it is prayed before this Hon'ble commission to decide the tariff expeditiously keeping in view the limited time schedule for implementation under the ibid scheme.

Place: Chandigarh
Date: 04.08.2020


Applicant/Petitioner


Through
ADITYA GROVER, ARJUN GROVER & POOJA RISHARMA
Advocates
Counsel for the Petitioner

Annexure P-5			
Parameters/Norms for determination of Generic tariff under Component-C			
Parameter	As provided in the petition	Now proposed by PEDDA as per regulations 2020-23 or as per petition	Remarks
Capacity	7.5 HP / 10KW	7.5 HP / 10KW	As per petition
CUF	17.14%	17.14%	As per petition
Total Cost	410000	410000	As per petition
Farmer Investment / Capital Cost	164000	164000	As per petition
Debt 75%	123000	123000	As per petition
Equity 25%	41000	41000	As per petition
Interest Rate (p.a.)	10.41%	9.67%	As per regulations 2020-23
Loan Moratorium (years)	0	0	As per regulations 2020-23
Loan Term (years)	13	15	As per regulations 2020-23
Depreciation	5.77% for first 13 years	5% for first 15 years	As per regulations 2020-23
Depreciation	1.25% for balance 12 years	1.50% for balance 10 years	As per regulations 2020-23
Income Tax (Personal)	29.12%	18.33%	Since the systems will be installed by individual farmers and as such average of 3 personal income tax slabs is now proposed.
I Tax MAT	20.46%	Not Applicable	
O&M for 1 to 5 years	0%	0%	As per petition
O&M for 6th Year	0.063 Lacs / 10 Kw	0.056 Lacs / 10 Kw	As per petition with Escalation as per Regulations 2020-23
O&M Escalation	5.72%	3.84%	As per regulations 2020-23
Discount Rate	9.36%	8.61%	As per regulations 2020-23 and suo motu order for determination of tariff for 2020-21. The grossed up ROE of 17.14% has now been worked out with average personal income tax rate of 18.33% so as to have net of 14% ROE.
ROE	17.60% 1 to 10 years	17.14% 1 to 20 years	
ROE	16.47% 11th year onwards	17.14% 21st year onwards	
Intt on working capital	11.41%	11.17%	As per regulations 2020-23/Suo Motu Order for determination of tariff for 2020-21
Life and Tariff Period	25 Years	25 Years	As per petition