

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

2547
6/3/20

Petition No. _____ of 2020.

In the matter of ;

Punjab Energy Development Agency

----- Petitioner

AND IN THE MATTER OF :

Petition under Section 62 of Electricity Act, 2003, Chapter VI of Conduct of Business Regulations and MYT Regulations 2014 read with other relevant provisions of the Electricity Act 2003 as well as regulations framed by this Hon'ble commission from time to time, for Determination of Levellised feed in Tariff in terms of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme for Solarisation of 3900 Grid connected agriculture pumps in the State of Punjab under Component -C of the ibid scheme, for sale of surplus power generated by solar PV array of 4 KW for 3 HP capacity Pump, 7KW for 5 HP and 10 KW for 7.5 HP grid connected agriculture pumps after meeting power requirements for irrigation of agriculture land.

INDEX

S. No.	Particulars	Page No.
1	Petition seeking levellised feed in tariff	1-17
2	Affidavit in support thereof.	18-19
3	Annexure P-1 (PM-KUSUM guidelines)	20-37
4	Annexure P-2 (MNRE Sanction)	38-39
5	Annexure P-3 (PSPCL concurrence and comments)	40
6	Annexure P-4 (Aggregate CUF of solar plants setup during 2014 to 2017)	41
7	Power of attorney and Authority letter	42-43

Demand draft No. 553472 dt 18.12.2019 of Rs.78,000/- has been attached on account of fee for filing of petition.

Place: Chandigarh

Date: 06-03-2020





ADITYA GROVER, ARJUN GROVER & POOJA R SHARMA
Advocates
Counsel for the Petitioner

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MEMO OF PARTIES


Punjab Energy Development Agency, having office at Plot No. 1 and 2, Sector 33 D, Chandigarh, through its Director Sh. M.P Singh.

..... Petitioner

Place: Chandigarh

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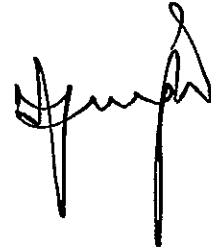
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RESPECTFULLY SHOWETH :

1. That the petitioner -Punjab Energy Development Agency (PEDA) is the state nodal agency for implementation, promotion & development of renewable energy programmes/projects and energy conservation programme in the State of Punjab as per the NRSE Policy-2012 of the State is registered as a Society under the Societies Act of 1860.



2. The present petition is being preferred by the petitioner through its Director, Sh. M.P Singh who is duly authorized in this regard vide authority letter no. 2156 dated 05.03.2020 issued by the Chief Executive of the Petitioner society. Still further Sh. M.P Singh is well conversant with the facts of the instant case. A copy of the authorization letter dated 05.03.2020 is appended here to.
3. That the petitioner by way of present petition is seeking determination of levellised feed-in tariff in terms of Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme for Solarisation of 3900 Grid connected agriculture pumps in the State of Punjab under Component –C of the ibid scheme. A copy of the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme is appended here to as **(Annexure P-1)**.
4. That the petitioner seeks kind indulgence of this Hon'ble Commission to peruse the background of the ibid scheme - Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme, which is necessary and essential for just and effective disposal of the instant matter.
5. That as a part of Intended Nationally Determined Contributions (INDCs), India has committed to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030.
6. That accordingly the Government of India had approved scaling-up of solar power target from 20,000 MW of Grid Connected Solar power Projects to 1,00,000 MW by 2022.

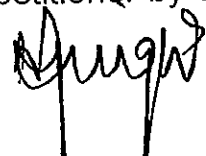


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7. That while Large Scale Solar power generation projects are being installed to achieve the ambitious target of 100 GW of Solar Power generation by 2022, the Government of India has also planned to simultaneously develop decentralized grid connected Solar power generation plants of capacity up to 2 MW which could be connected directly to LV bus of existing 33/11 kV or 66/11 kV or 110/11 kV sub-stations of Distribution Company, thus saving in transmission system requirement apart from T&D losses. Such plants near these sub-stations may be developed, preferably by farmers, giving them an opportunity to increase their income by utilizing their barren and uncultivable land for solar or other renewable energy based power plants. Cultivable land may also be used if the Solar plants are set up on stilts where crops can be grown below the stilts and sell RE power to DISCOMs.
8. That besides, developing decentralized renewable power, Government of India has planned to replace Agriculture Diesel pumps with Solar Water pumps and Solarise Grid connected Agriculture pumps.
9. That as per Government of India, at present, over 30 million agricultural pumps are installed in India, out of which nearly 10 million pumps are diesel based. The Distribution Companies (DISCOMs) are not in a position to energize these pumps through grid connection as seen from the long waiting lists with such Distribution Companies. Hence, the Government of India has decided that there is a need to provide energy to these pumps through solar energy.



10. That as per the Government of India, over 20 million grid-connected agriculture water pumps installed in the country consume more than 17 percent of total annual electricity consumption of the country. Solarization of the same can reduce dependence of these pumps on conventional sources of energy supplied by DISCOMs and thus reducing their burden of subsidy on agriculture consumption of Electricity. This will also provide additional source of income to farmers who will be in a position to sell the surplus power to DISCOMs.
11. That accordingly, Government of India has brought in a scheme called Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme, which has a provision for the decentralized renewable energy plants, Solar agriculture water pumps and solarisation of existing Grid connected Agriculture pumps.
12. That the Government of India has launched New Scheme for farmers with following components:
 - i. Component-A: Setting up of 10,000 MW of Decentralized Ground/ Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants;
 - ii. Component-B: Installation of 17.50 Lakh Stand-alone off grid Solar Agriculture Pumps; and
 - iii. Component-C: Solarisation of 10 Lakh Grid Connected Agriculture Pumps.
13. That though the above said scheme contains three components namely A, B and C, however at this stage the petitioner by way of



present petition is seeking relief only with regard to Component-C and reserves its rights to prefer separate petition with regard to other components of the scheme as and when advised for.

14. That the Government of India under the ibid scheme has decided that the Component-A and Component-C will be implemented initially on pilot mode for 1000 MW capacity and one lakh grid connected agriculture pumps respectively and Component-B will be implemented in full-fledged manner with total Central Government support of Rs. 19,036.5 Crore.
15. That under the scheme the Government of India has decided that after successful implementation of pilot project of Components A and C, the same shall be scaled up with necessary modifications based on the learning from the pilot phase with total Central Government support of ₹ 15,385.5 Crores.
16. The Government of India under the scheme consisting of all three components of the scheme aim to add Solar capacity of 25,750 MW by 2022 with the total Central Financial Support of ₹ 34,422 crore.
17. That under the ibid scheme, Government of India has provided implementation mechanism for all the components, however since the present petition is confined only with respect to component-C, therefore, the petitioner by way of the instant petition is submitting mechanism only with respective component –C of the ibid scheme.
18. That although under the aforesaid scheme the Government of India has decided to solarise 10 Lakh Grid Connected Agriculture Pumps in the entire country, however, out of the same, State of Punjab has been given a target of solarisation of 3900 grid

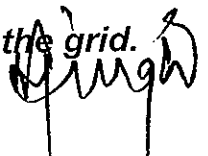
connected agriculture pumps, which is apparent from the sanction rendered by Government of India vide order dated 20.09.2019 issued by Ministry of New and Renewable Energy. A copy of the order dated 20.09.2019 is appended here to as **(Annexure P-2)**.

19. That from the perusal of the ibid order dated 20.09.2019, it would be revealed that Government of India, Ministry of New and Renewable Energy has issued various guidelines / directions to the petitioner for implementation of the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme.
20. The ibid order inter-alia provides that the petitioner shall carry out various activities as provided under the section – Responsibilities of the State implementation agency under component – C of the guidelines including creating awareness about the scheme. Thus the petitioner has been appointed as the State implementation agency for the ibid scheme in the State of Punjab and has been rendered responsibility for the successful implementation of the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme in the State of Punjab. The responsibilities attributed to the State implementation agencies under the ibid scheme are reproduced below :

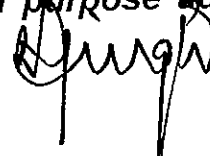
"Responsibilities of Implementation Agency

The Implementing Agencies will be responsible for the following activities:

- i. Issue additional instructions/ conditions such as minimum solarisation level of feeder.***
- ii. Issue connectivity standards/regulations, if required, and facilitate connection to the grid.***



- iii. *Selection of feeder for solarisation and demand aggregation for solarisation of pumps.*
- iv. *Prepare proposal and submit to MNRE for sanction*
- v. *Conduct tendering process as per MNRE guidelines*
- vi. *Oversee installation of systems.*
- vii. *Inspection of installed systems and online submission of completion reports to MNRE.*
- viii. *Disbursement of MNRE CFA and submission of utilization certificates and audited statement of expenditure through EAT module.*
- ix. *Online submission of monthly and quarterly progress reports.*
- x. *Ensure project completion within the given timelines and compliance of MNRE Guidelines and Standards.*
- xi. *Online and offline maintenance for records.*
- xii. *Real time monitoring through dedicated web-portal*
- xiii. *Performance monitoring of installed system through third party*
- xiv. *Ensure compliance of AMC and training of locals by the vendors.*
- xv. *Carrying out publicity of the scheme so as to increase awareness, for which purpose advice of*



MNRE may also be adopted apart from its own publicity.

xvi. Any other activity to ensure successful implementation of the programme."

21. That the order dated 20.09.2019 inter-alia provides for the implementation and commissioning of the projects within a specified timeline as provided in the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) itself, which stipulates that the projects should be commissioned within a period 12 months from the date of sanction order issued by the Government of India i.e. 20.09.2019. Extension in project completion timelines, up to a maximum period of three months, will be considered at the level of Group Head in MNRE and upto 6 months at the level of Secretary in MNRE on submission of valid reasons by the implementing agency. However, such extension will attract reduction in service charges to implementing agency as under:

- a. 10% reduction in applicable service charges for delay of more than one month in completion of project.
- b. Further reduction of 10% of service charges for delay of more than two months and up to three months.
- c. Further reduction of 10% of service charges for delay of more than three months and up to six months
- d. No service charges for delay in completion of more than six months.



No extension will be granted beyond six months and only the systems which are installed in all respects and commissioned within stipulated time period will be considered for release of CFA.

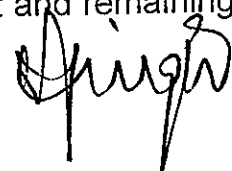
Since, penal clauses have been provided in the ibid scheme incase of delayed commissioning of the projects, thus, for the successful implementation of the ibid scheme and consequently, timely commissioning of the projects to be allotted, the Petitioner is seeking kind intervention of this Hon'ble commission on urgent basis for the determination of tariff qua the projects to be set up under the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme.

22. That under component-C of the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme, it has been provided that the individual farmers having grid connected agriculture pump will be supported to solarise pumps. Solar PV capacity up to two times of pump capacity in kW is allowed under the scheme. However, State may specify lower solar PV capacity in kW, which in any case shall be not be less than pump capacity in HP e.g. for 5 HP pump, the solar PV capacity allowed should not be less than 5 KWp and may go up to 7.5 KWp (1 HP- 0.75 KW).

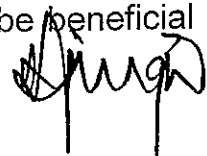
That since under the scheme respective States has been given a prerogative to specify the solar PV capacity vis-à-vis the pump capacity, accordingly, the petitioner being the State implementation agency under the scheme as well as nodal agency

under NRES policy notified by Government of Punjab has decided to allow setting up of solar PV array of 4 KW for 3 HP capacity Pump, 7 KW for 5 HP and 10 KW for 7.5 HP grid connected agriculture pumps.

23. That Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme provides that the farmer will be able to use the generated solar power to meet the irrigation needs and the excess solar power will be sold to DISCOMs. It will be mandatory to use indigenously manufactured solar panels with indigenous solar cells and modules. Further, the balance of system should also be manufactured indigenously.
24. That the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme stipulates that CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component will be provided by Government of India and the State Government will give a subsidy of 30% and the remaining 40% will be provided by the farmer only. Further, the CFA will be limited to Solar PV capacity up to two times of pump capacity in kW for pumps up to 7.5 HP. Solarisation of Pumps of capacity higher than 7.5 HP may be allowed, however, the CFA will be limited to the CFA applicable for pump of 7.5 HP in the respective State/UTs.
25. That the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme further provides that Bank finance may be made available for farmer's contribution, so that farmer has to initially pay only 10% of the cost and remaining up to 30% of the cost as loan.



26. That the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme provides that the model under the scheme will help to create an avenue for extra income to the farmers, and for the DISCOMs to meet their RPO targets. The solar power fed in to the grid and solar power utilized by farmer both will be accounted for fulfillment of solar RPO by the DISCOM.
27. That the Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme further provides that the DISCOM may adopt any of the modalities for solarisation of pumps viz, (i) Net-metering: in this case the agriculture pump will continue to run at rated capacity taking power from solar panels and balance power from grid, if required, and in case solar power generation is higher than required by pump, the additional solar power would be fed to the grid; (ii) Pump to run on solar power only: in this case the pump will run on solar power as in case of stand-alone off grid solar pump and no power will be drawn from the grid for operation of pump. In case solar power generation is higher than required by pump, the additional solar power would be fed to the grid.
28. That as per the ibid scheme, it has been mandated that the DISCOMs will purchase excess power from the farmer at the rate decided by the respective State/SERC.
29. That the ibid scheme has rendered directives to the DISCOMs that it will ensure "must-run" status to the solarised feeders and will keep such feeders 'ON' during sunshine hours of a day.
30. That the petitioner being the State implementation agency is of the strong view that the aforesaid scheme shall be beneficial not only

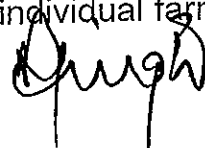


for the farmers to whom the projects shall be allotted, however shall also be of great benefit to the DISCOM and as a whole shall act as a boon to the entire State. This will also reduce the cross subsidy burden on other consumers and agriculture subsidy burden of GOP. The solar power purchased by DISCOM and utilized by pump set both will be accounted for fulfillment of solar RPO by the DISCOM.

31. That the petitioner humbly submits that for the successful implementation of the ibid scheme in the State of Punjab which appears to be of a substantial benefit to the entire State, the tariff for the projects to be allocated is essential. Even as per the ibid scheme, Government of India has provided that the DISCOMs will purchase excess power from the farmer at the rate decided by the respective State/SERC. Thus, the petitioner being the State Nodal Agency as well as the implementing agency qua the scheme has filed the present petition before this Hon'ble commission seeking levelized tariff qua the projects under reference.
32. That the petitioner humbly submits that as per provisions of Electricity Act 2003, this Hon'ble commission is empowered to determine tariff for the sale of power by a generating company to distribution licensee.
33. Ministry of New and Renewable Energy, Government of India has fixed the benchmark cost of the solar PV systems for agriculture pumps which is Rs. 54 per watt. The benchmark cost of 3 HP grid connected agriculture pump with 4 KW solar PV array, 5 HP with 7KW and 7.5 HP with 10KW solar PV array works out to be Rs. 2,16,000/-, 3,78,000/- and 5,40,000/- respectively.



- That the petitioner at its own level on the basis of the technical knowhow and the information gathered from the solar pump developers has worked out the cost for solarisation of 7.5HP pump through 10Kw Solar PV array as Rs. 4,10,000/- and the cost of 3 & 5 HP pumps shall be in proportion thereof. It is also added here that Rajasthan Electricity Regulatory Commission (RERC) has finalized the tariff vide order dated 11.02.2020 for sale of solar power under PM-KUSUM Scheme, as per which they have taken 20% CUF and Rs. 4.50 lacs per MW (Rs. 4500 per pump of 10Kw) as O&M cost whereas as per CERC 2016-17 order (last determined tariff by CERC), O&M is Rs. 7 lacs / MW and CUF is 19%. Solar insolation in Punjab is less than Rajasthan and accordingly CUF for Punjab was proposed as 18% whereas O&M was taken as per RERC. Other parameters were as per CERC orders 2019-20 which are requisite for determination of the tariff qua the projects under reference.
- The Proposal with parameters as above was sent to PSPCL for concurrence and Dy. CE/DSM, PSPCL vide e-mail dt. 18.02.2020 has sent comments for incorporation in the proposal (**Annexure P-3**). The comments of PSPCL at Point No. 1, 2 & 4 can be adopted if debt equity ratio is 70:30 and 19% CUF in line with CERC Regulations. However, since in this case debt is 75% and equity is 25% on actual basis, as such the Petitioner proposes to adopt Debt equity as per actuals. We propose to consider 17.14% CUF and the same is discussed in para below. Regarding Point No. 3, for taking Return on Equity with 15% Income Tax, it is submitted that said proposal is applicable only to new companies to be formed in for setting up NRSE projects whereas the present proposal is for individual farmers



and formation of company for individual pump is neither envisaged nor applicable here. Therefore the ROE has been kept same as per CERC/PSERC order for 2019-20 i.e. 17.60%.

- As far as CUF is concerned,, It is to mention here that 43 Nos. small capacity (1 to 4 MW) IPP solar power plants were setup in Punjab during 2014 to 2017 and 17.14% CUF has been derived from the power sold by 27 Nos. solar power plants having CUF more than 15% during F.Y 2017-18 & 2018-19 as per true up data submitted by PSPCL to PSERC in the ARR for 2019-20 and 2020-21. These plants of aggregate capacity 59.50 MW had generated 88.49 MUs with cumulative CUF of 16.98% during F.Y 2017-18 and 85.66 MUs with cumulative CUF of 16.43% during 2018-19. Degradation of 1% per year has been taken and is applied with which the CUF of the commissioning years works out to be 17.26% for the projects based on power purchased by PSPCL during 2017-18 and 17.01% for the projects based on power purchased by PSPSCL during of 2018-19. The aggregate CUF of both the years works out to be 17.14% **(Annexure P-4)**.

- Government of India and Government of Punjab shall equally provide 30% subsidy on installation of 3,5 & 7.5 HP grid connected solar pumps. The investment of the farmer for 7.5 HP solar pump would be 40% i.e. Rs. 1,64,000/- and for 3 & 5 HP it shall be in proportion thereof .

- **The proposed normative parameters for pump and solar PV array are submitted as under:-**

- Capacity = 7.5 HP / 10kw
- CUF = 17.14%



- Total cost = Rs. 4,10,000/-
- Farmer Investment = Rs. 1,64,000 (40% of total cost)
- Debt 75% = Rs. 1,23,000/- (30% of total cost)
- Equity 25% = Rs. 41,000/- (10% of total cost)
- Interest Rate = 10.41% (as per CERC order 2019-20)
- Loan Moratorium = 0 years
- Loan term = 13 years
- Depreciation 1 to 13 years = 5.77%
- Depreciation 14 to 25 years = 1.25%
- Income tax = 29.12%
- Income tax MAT = 20.46%
- O & M for 1 to 5 years = 0% (5years AMC by EPC)
- O & M for 6 to 25th years = 0.063 lacs/ 10 KW
(Rs 4.50 lakh/MW as per RERC 2019-20 for 1st year further escalated @ 5.72% per year)
- O & M Escalation = 5.72%
- Discount rate = 9.36% (as per CERC order 2019-20)
- ROE = 17.60% (as per CERC order 2019-20)
- Life and tariff period = 25 years

Hon'ble Commission may finalize the parameters to be taken under the scheme for determination of tariff.

34. In view of the provisions of PM-KUSUM scheme, the farmer will run the pump on solar power only and will sell the surplus power to PSPCL at the tariff to be determined by this Hon'ble Commission. As such the contribution of farmer towards the project and net power to be sold to PSPCL are proposed to be considered to work out the tariff.



35. That PEDDA has to call bids from the companies for solarisation of grid connected pumps after selection of agriculture feeders by PSPCL and receipt of 30% funds from the State Government .
36. That the petitioner has not filed any such similar petition before this Hon'ble commission or before any other court of law seeking determination of tariff qua the projects under the scheme under reference.
37. That the petitioner has paid the requisite fee as per the fee regulations framed by this Hon'ble commission, for filing the present petition.

In light of the facts and circumstances mentioned above, this Hon'ble commission may kindly be pleased to:

- i) **Determine levelled feed in tariff in terms of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme for Solarisation of 3900 Grid connected agriculture pumps in the State of Punjab under Component –C of the ibid scheme, for sale of surplus power generated by solar PV array of 4 KW for 3 HP capacity Pump, 7 KW for 5 HP and 10 KW for 7.5 HP grid connected agriculture pumps after meeting power requirements for irrigation of agriculture land;**
- ii) **Pass any other order or grant any other relief in favor of the petitioner in the facts and circumstances of the instant case.**

Place: Chandigarh

Date: 06-03-2020


Petitioner

Through

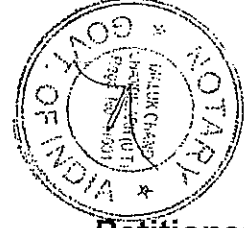
ADITYA GROVER, ARJUN GROVER & POOJA R SHARMA
Advocates
Counsel for the Petitioner

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MADHYA MARG, CHANDIGARH.**

Petition No. _____ of 2020.

In the matter of ;

Punjab Energy Development Agency



----- **Petitioner**

Affidavit Of M.P Singh , age 53 years,
Director, Punjab Energy Development Agency,
Plot No. 1-2, Sector-33 D, Chandigarh.

I the above named deponent do hereby solemnly declare and affirm as under:

1. That the Deponent is the Director of the Petitioner Society and is duly authorized and competent to file the present Petition. The Deponent is also well conversant with the facts of the present matter.
2. That the contents of the accompanying petition are true and correct to the best of my knowledge derived from the official record of the Petitioner society. No part of it is false and nothing material has been concealed therein.
3. That the petitioner has not filed any such similar petition before this Hon'ble commission of before any other court of law seeking determination of tariff qua the projects under the scheme under reference.

Chandigarh

Date: 06-03-2020

M.P Singh
Deponent

06 MAR 2020

Verification:

Verified that the contents of my above affidavit are true and correct to the best of my knowledge derived from the official records and no part of it is false and nothing material has been concealed therein.



Chandigarh

Date:

[Signature]
Deponent

06 MAR 2020

*scd for Mr
Gurpreet Singh
owner of car no. 40,
on behalf of...*



The contents of the affidavit / Document has been compared to the original / executants He / she has attested the same to be correct. The deponent / executant has signed Register.

[Signature]

6/3/20

06 MAR 2020



I identified the deponent/executant who signed/thumb marked in my presence.

[Signature]
Signature

06 MAR 2020

ATTESTED AS IDENTIFIED
MALIK CHAND
NOTARY CHANDIGARH

*Gurpreet Singh
owner of car no. 40*

06 MAR 2020

06 MAR 2020



F. No. 32645/2017-SPV Division
Government of India
Ministry of New and Renewable Energy

Block-14, CGO Complex,
Lodhi Road, New Delhi
Dated: 22 July, 2019

Office Memorandum


Subject: Guidelines for implementation of Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhayan Scheme.

This refers Ministry's OM of even number dated 8.3.2019 vide which sanction was issued for launch of New Scheme for Farmers covering following three Components:

- i. Component A: 10,000 MW of Decentralized Ground Mounted Grid Connected Renewable Power Plants of individual plant size up to 2 MW.
 - ii. Component B: Installation of 17.50 lakh standalone Solar Powered Agriculture Pumps of individual pump capacity up to 7.5 HP.
 - iii. Component C: Solarisation of 10 Lakh Grid-connected Agriculture Pumps of individual pump capacity up to 7.5 HP.
2. The Scheme will be called as Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhayan (PM KUSUM) Scheme. The operational Guidelines for implementation of the PM KUSUM Scheme are enclosed.
3. This issues with the approval of Competent Authority.

Enclosed: As above.

To
All Concern


22/7/19
(J.K. Jethani)
Scientist-I.



Ministry of New and Renewable Energy

Guidelines for Implementation of Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhayan (PM KUSUM) Scheme

1. Background

As a part of Intended Nationally Determined Contributions (INDCs), India has committed to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030.

The Cabinet had approved scaling-up of solar power target from 20,000 MW of Grid Connected Solar power Projects to 1,00,000 MW by 2022.

While Large Scale Solar power generation projects are being installed to achieve the ambitious target of 100 GW of Solar Power generation by 2022, it has been planned to simultaneously develop decentralized Solar energy and other renewable energy generation Plants of capacity up to 2 MW which could be connected directly to existing 33/11 kV or 66/11 kV or 110/11 kV sub-stations of Distribution Company, thus saving in transmission system requirement apart from T&D losses. Such plants near these sub-stations may be developed, preferably by farmers, giving them an opportunity to increase their income by utilising their barren and uncultivable land for solar or other renewable energy based power plants. Cultivable land may also be used if the Solar plants are set up on stilts where crops can be grown below the stilts and sell RE power to DISCOMs.

Besides, developing decentralized renewable power, it is planned to replace Agriculture Diesel pumps with Solar Water pumps and Solarise Grid connected Agriculture pumps. At present, over 30 million agricultural pumps are installed in India, out of which nearly 10 million pumps are diesel based. The Distribution Companies (DISCOMs) are not in a position to energize these pumps through grid connection as seen from the long waiting lists with such Distribution Companies. Hence there is a need to provide energy to these pumps through solar energy. Also, over 20 million grid-connected agriculture water pumps installed in the country consume more than 17 percent of total annual electricity consumption of the country. Solarization of the same can reduce dependence of these pumps on conventional sources of energy supplied by DISCOMs and thus reducing their burden of subsidy on agriculture consumption of Electricity. This will also provide additional source of income to farmers who will be in a position to sell the surplus power to DISCOMs.

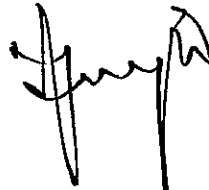
The new Scheme has provision for the decentralised renewable energy plants, Solar agriculture water pumps and solarisation of existing Grid connected Agriculture pumps.

2. Approval of the New Scheme for Farmers

The Government of India has launched New Scheme for Farmers with following components:

- i. Component-A: Setting up of 10,000 MW of Decentralized Ground/ Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants;
- ii. Component-B: Installation of 17.50 Lakh Stand-alone Solar Agriculture Pumps; and

Page 2



iii. Component-C: Solarisation of 10 Lakh Grid Connected Agriculture Pumps.

The Component-A and Component-C will be implemented initially on pilot mode for 1000 MW capacity and one lakh grid connected agriculture pumps respectively and Component-B will be implemented in full-fledged manner with total Central Government support of Rs. 19,036.5 Crore.

After successful implementation of pilot project of Components A and C, the same shall be scaled up with necessary modifications based on the learning from the pilot phase with total Central Government support of ₹ 15,385.5 Crores.

All three components of the scheme aim to add Solar capacity of 25,750 MW by 2022 with the total Central Financial Support of ₹ 34,422 crore.

3. Implementation mechanism:

These guidelines have been formulated to provide broad implementation framework of the Scheme.

I. Component A: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants

Under this component, solar or other renewable energy based power plants (REPP) of capacity 500 kW to 2 MW will be setup by individual farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO)/Water User associations (WUA) hereinafter called Renewable Power Generator (RPG). However, States/DISCOMs may allow setting-up of solar or other renewable energy based power plants of capacity less than 500 kW in specific cases. The REPP will be preferably installed within five km radius of the sub-stations in order to avoid high cost of sub-transmission lines and to reduce transmission losses.

The Distribution companies (DISCOMs) will notify sub-station wise surplus capacity which can be fed from such RE power plants to the Grid and shall invite applications from interested beneficiaries for setting up the renewable energy plants. The renewable power generated will be purchased by DISCOMs at a pre-fixed levelised tariff. In case, the aggregate capacity offered by Applicants is more than notified capacity for a particular sub-station, bidding route will be followed by DISCOMs to select Renewable Power generator and in such cases the pre-fixed levelised tariff will be the ceiling tariff for bidding. Selection of bidders will be based on the lowest tariff offered in the ascending order as quoted by the bidders in the closed bid or e-reverse auction as the case may be. A model PPA (Power Purchase Agreement) to be executed between RPG and DISCOMs has been prepared by MNRE and attached at Annexure-I. The duration of PPA will be 25 years from Commercial Operation Date (COD) of the project. The total energy purchased from these RE plants will be accounted for fulfillment of RPO by the DISCOM.

In case the farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO)/ Water User associations (WUA) etc. are not able to arrange equity required for setting up the REPP, they can opt for developing the REPP through developer(s) or even through local DISCOM, which will be considered as RPG in this case. In such a case, the land owner will get lease rent as mutually agreed between the parties. The lease rent may be in terms of Rs per year per acre of land or in terms of Rs per unit energy generated per acre



of land area. The farmer(s) may opt for payment of lease rent directly in their bank account by the DISCOM, from the payment due to the developer. A model Land Lease Agreement to facilitate the beneficiaries has been prepared by MNRE and is attached at Annexure-II. However, the terms of Land Lease Agreement may be finalised on mutual consent of concerned parties.

The REPP under the scheme would be implemented primarily on Barren / uncultivable land. Agricultural land is also permitted under the scheme provided that solar plants are installed in stilt fashion (i.e. raised structure for installation of Solar panels) and with adequate spacing between panel rows for ensuring that farming activity is not affected. The RPG would be free to adopt any renewable energy source or technology while responding to the bid. However, in case of cultivable land with solar plants, the same may be installed on stilts, so that the farmers continue to cultivate the land, apart from getting the benefit of lease rent. In such a case DISCOM may also float bids (in case of specific substations) where setting up of solar projects on stilts may be mandatorily required, and bids for energy tariff invited accordingly.

A. Selection and Implementation of Decentralised Renewable Energy Power Plants

a. Notification of sub-station wise generation capacity

DISCOM shall assess and notify RE generation capacity that can be injected in to all 33/11 kV or 66/11 kV or 110/11 kV sub-station of rural areas and place such notification on its website for information of all stakeholders. To facilitate farmers willing to lease out their land for development of RE plants near above notified substation(s), as per provisions of this scheme, DISCOM may also place list of such farmers on their website. However, the leasing of land of any farmers will be a bi-partite agreement between the farmer and the developer and DISCOM will not be held responsible for failure in getting the land leased out to a developer. To meet additional demand DISCOM will augment the capacity of sub-station under IPDS or any other scheme.

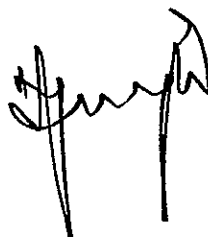
b. Expression of Interest (EoI) for Short-listing of RPG

DISCOM or any agency authorized by the DISCOM shall invite 33/11 kV or 66/11 kV or 110/11 kV sub-station wise EoI from RPG to participate in selection process for development of decentralised renewable power plants. The RPG shall submit their interest against the EoI as per the schedule notified by DISCOM. An RPG will not be allowed to apply for more than one renewable power plant for a particular 33/11 kV sub-station. The EoI of an RPG will also be disqualified if it is found that its proprietor/partner/director/member has also filed EoI as proprietor/partner/director/member for another RPG for the same sub-station.

The DISCOM or any agency authorized by the DISCOM may request to submit non-refundable processing fee from the interested RPGs, which in no case shall be higher than Rs. 5000 per MW or part thereof of the capacity applied for.

In order to ensure only quality systems are installed, prevailing MNRE/BIS specifications and quality control orders applicable for solar modules, inverters, BoS and other equipment shall be followed.

In case of REPP being developed by a developer, the Net-Worth of the developer should not be less than Rs. 1.00 Crore per MW (of the capacity applied). This shall not be applicable for



farmers cooperative or panchayats or Farmer Producer Organisations (FPO) /Water User associations (WUA) or farmers setting up REPP in their own lands.

c. Selection of REPP

In case the total aggregate capacity of eligible applications received for a particular sub-station is less than or equal to the capacity notified for connectivity at the sub-station, LoA will be awarded to all eligible applicants for procurement of renewable power at a pre-fixed levelised tariff.

In case the total aggregate capacity of eligible application received for a particular sub-station is more than the capacity notified for connectivity at the sub-station, then DISCOM or any agency authorized by the DISCOM shall invite Bids from all these applicants. All eligible applicants will have to submit tariff bids within a prescribed time. Selection of bidders will be based on the lowest tariff offered in the ascending order as quoted by the bidders in the closed bid or e-reverse auction as the case may be. LoA will be awarded to all successful bidders.

d. Connectivity with the sub-station

REPP of capacity up to 2 MW may be connected at 11 kV side of sub-station and the selected RPG will be responsible for laying of dedicated 11 kV line from REPP to sub-station, construction of bay and related switchgear at sub-station where the plant is connected to the grid and metering is done. The DISCOM will facilitate the RPG in getting right of way for laying of 11 kV line. Alternatively, RPG can get constructed the 11 kV lines through DISCOM by paying the applicable cost and other charges. RPG will be responsible for maintaining this dedicated 11 kV line. In case more than one bidders are awarded projects to be connected to same Sub-station, they shall be permitted to co-ordinate with each other for setting up common transmission line for feeding to Sub-Station if they so desire and with the approval of DISCOM. However, in North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands, where States/UTs allows RE plants of capacity less than 500 kW the plant may be connected through LT line subject to technical feasibility and approval by DISCOM.

The RPG shall comply grid connectivity and other regulations as applicable.

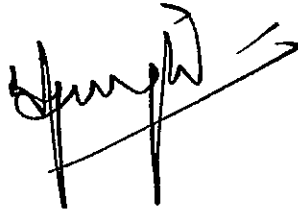
e. Clearances required from the State Government and other local bodies

The RPG is required to obtain necessary clearances as required for setting up the REPP.

f. Power Purchase Agreement (PPA)

A copy of standard Power Purchase Agreement to be executed between the DISCOM and the RPG shall be provided by DISCOM along with invitation for submission of EoI. The model PPA agreement shall be as provided by MNRE (Copy enclosed). Within two months of the date of issue of Letter of Award (LoA) by DISCOM or any agency authorized by the DISCOM, the Power Purchase Agreement (PPA) will have to be executed by RPG. The PPA shall be for a period of 25 years from the date of COD. The DISCOM will be obliged to buy the entire power from RPG within the contract capacity. However, the RPG is required to achieve a minimum CUF of 15% on annual basis during the PPA period. However, in case of low Solar radiation zones, minimum CUF can be revised by concerned DISCOM. The RPG will be free to operate the plant after expiry of the 25 years of PPA period if other conditions like land

Page 5



lease, etc., permits. However, any extension of the PPA period beyond 25 years shall be through mutual agreements between the RPG and DISCOM. As a payment security measure DISCOM will have to maintain LC and Escrow Arrangement as defined in the PPA.

g. Bank Guarantees

The RPG shall provide the following Bank Guarantees to DISCOM as follows:

- Earnest Money Deposit (EMD) of Rs. 1 Lakh/MW in the form of Bank Guarantee along with EoI.
- Performance Bank Guarantee (PBG) of Rs. 5 Lakh/MW within 30 days from date of issue of Letter of Award.

The Bank Guarantees against EMD shall be returned to the selected RPG on submission of valid PBGs. The selected RPGs are required to sign PPA with the DISCOM in line with the timeline given in the Guidelines. In case, the selected RPG fails to execute the PPA within the stipulated time period, the Bank Guarantee equivalent to EMD shall be en-cashed by DISCOM as penalty. In case any bidder is not selected, DISCOM shall release the EMD within 15 days of the date of issue of LoA to selected RPG(s). The PBGs shall be valid for a period of 12 months from the date of issue of LoA for the REPP. The PBG will be returned to the RPG immediately after successful commissioning of solar power plant, after taking into account any penalties due to delay in commissioning as per provisions stipulated in the Guidelines.

h. Commissioning

The selected RPG shall commission the solar power plant within nine months from date of issuance of LoA. The RPG may commission the REPP during this period of nine months and the DISCOM is obliged to purchase power from that commissioned REPP any time after the issuance of LoA. A duly constituted Committee of DISCOM officials will physically inspect the Plant in not more than 03 days from the date of receiving a call from the RPG and certify successful commissioning of the plant. In case any RPG fails to achieve this milestone, DISCOM shall encash the Performance Bank Guarantee (PBG) in the following manner:

- a. Delay up to two months - The PBG on per day basis and proportionate to the balance capacity not commissioned.
- b. In case the commissioning of the solar power plant is delayed over two months, the PPA capacity shall stand reduced / amended to the Project capacity commissioned at the end of 11th month from date of issuance of Letter of Award.

In case of delays of plant commissioning due to the reasons beyond the control of the RPG, DISCOM after having been satisfied with documentary evidences produced by the RPG for the purpose, can extend the time for commissioning date without any financial implications to the RPG.

i. Shortfall in minimum generation

During PPA, if for any year, it is found that the RPG has not been able to generate minimum energy corresponding to CUF of 15% or as prescribed by DISCOMs; such shortfall in performance shall make RPG liable to pay the compensation as provided in the PPA to the DISCOM. This will, however be relaxable to the extent of grid non-availability for evacuation, which is beyond the control of the RPG. Further, this compensation shall not be applicable in

events of Force Majeure identified under PPA with Discom affecting supply of solar power by RPG.

j. Commercial Operation Date (COD)

The Commercial Operation Date (COD) shall be considered as the actual date of commissioning of the solar power plant as declared by the Commissioning Committee.

k. Release of PBI to DISCOM

DISCOM would be eligible to get PBI @ Rs. 0.40 per unit purchased or Rs. 6.6 lakh per MW of capacity installed, whichever is less, for a period of five years from the COD. However, to avail the PBI, DISCOM shall submit following documents after completion of one year from the COD and every year thereafter till five years:

- Timely payment of monthly lease rent, if applicable, to the land owner of the project.
- Monthly units purchased from the plant and corresponding payment made to the project developer.

Applicable PBI would be released to the DISCOM after submission of these documents by DISCOM to MNRE.

B. Roles and responsibilities of stakeholders:

(i) Ministry of New and Renewable Energy:

MNRE shall allocate initial capacity of 1000 MW for Pilot Project to DISCOMs based on their demand and readiness for implementation. Pilot projects will be continuously monitored during implementation and also on completion to evaluate their success and a detailed report will be prepared for recommending further scaling up of the capacity under this component. Such evaluation may be done internally or through external agency as per decision of the MNRE.

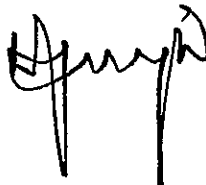
Ministry will issue Model PPA and model Lease Agreement for implementation of the scheme.

MNRE will provide Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying solar/ other renewable power under this scheme. The PBI will be given to the DISCOMs for a period of five years from the Commercial Operation Date of the plant. Therefore, the total PBI that shall be payable to DISCOMs will be Rs. 33 Lakh per MW.

(ii) DISCOMs:

The DISCOMs shall have to send their demand for sanction under the scheme along with details on their readiness to implement the component A of the scheme.

The concerned DISCOM shall declare the renewable power capacity that can be connected to a 33/11 kV sub-station and carry-out the procedure for selection of RPG. On selection of RPG, DISCOMs shall issue the LoA and sign PPA with RPG. DISCOMs will provide connectivity at the sub-station to the selected RPG. The DISCOMs will ensure "must-run" status to the solar/ other renewable power plants installed under this scheme and will keep the feeders 'ON'



during sunshine hours of a day. They shall act as facilitator to the beneficiaries in implementation of this scheme.

In case, RPG has taken land from a farmer/group of farmers on lease for the project, the amount of monthly lease rent would be paid by the DISCOMs to the lessor directly in his/her bank account before 5th day of the month following the month for which the lease rent is due. In such a case, the lease rent paid by the DISCOM will be deducted from monthly payment due to the RPG.

(iii) State Nodal Agency (SNA):

State Nodal Agency (SNA) will coordinate with States/UTs, DISCOMs and farmers for implementation of the scheme. They will assist the farmers in project development activities including formulation of DPR, PPA/EPC contracts, getting funds from financial institutions, etc. For settlement of any issues arising during selection of solar/ other renewable energy based power plants and their implementation, a State level Committee under the chairmanship of Principal Secretary (Renewable Energy/Energy) will be setup by the participating State/UT and SNA of that State will be responsible to coordinate/organize the quarterly meetings of the State Level Committee. In addition, SNAs shall ensure publicity of the scheme and create awareness through advertisements etc, and also monitor the implementation of the scheme. The SNA will be eligible to get service charge of Rs.0.25 Lakh per MW after commissioning of the projects.

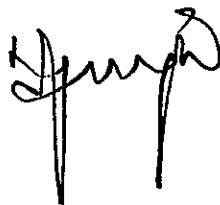
(iv) Renewable Power Generator (RPG):

Individual farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO) /Water User associations (WUA) or projects developer would be the RPG. They have to participate in the selection process to be carried out by DISCOMS. In case of selection, they have to sign PPA and install the plant as per provisions of these guidelines and applicable rules and regulations.

II. Component B: Installation of 17.50 Lakh Stand-alone Solar Pumps

Under this Component, individual farmers will be supported to install standalone solar Agriculture pumps of capacity up to 7.5 HP for replacement of existing diesel Agriculture pumps / irrigation systems in off-grid areas, where grid supply is not available. Installation of new pumps shall also be permitted under this scheme except in dark zone areas. Pumps of capacity higher than 7.5 HP may be allowed, however, the CFA will be limited to the CFA applicable for pump of 7.5 HP. Water User Associations and community/cluster based irrigation system will also be covered under this component. However, priority would be given to small and marginal farmers. In order to minimize the water usage for irrigation purpose, preference will be given to the farmers using Micro irrigation systems or covered under Micro irrigation schemes or who opt for micro irrigation system. The size of pump would be selected on the basis of water table in the area, land covered and quantity of water required for irrigation.

Solar PV capacity in kW for the pump capacity in HP will be allowed as per MNRE specifications under the scheme It will be mandatory to use indigenously manufactured solar panels with indigenous solar cells and modules. Further, the motor-pump-set, controller and balance of system should also be manufactured indigenously. The vendor has to declare the list of imported components used in the manufacturing of solar water pumping system.



CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar Agriculture pump will be provided. The State Government will give a subsidy of 30%; and the remaining 40% will be provided by the farmer. Bank finance may be made available for farmer's contribution, so that farmer has to initially pay only 10% of the cost and remaining up to 30% of the cost as loan. In case the State Government provides subsidy more than 30%, the beneficiary share will reduce accordingly.

However, in North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar pump will be provided. The State Government will give a subsidy of 30%; and the remaining 20% will be provided by the farmer. Bank finance may be made available for farmer's contribution, so that farmer has to initially pay only 10% of the cost and remaining up to 10% of the cost as loan. In case the State Government provides subsidy more than 30%, the beneficiary share will reduce accordingly.

New Solar Agriculture pumps would not be covered under this component in Dark zones/black zones. However, existing standalone diesel pumps, can be converted into standalone solar pumps in these areas provided they use micro irrigation techniques to save water.

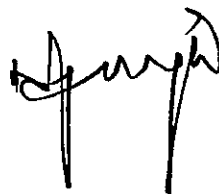
Possibilities would be explored by implementing agencies for convergence of present scheme with schemes on promotion of micro irrigation system and replacement of agriculture pumps with energy efficient pumps and they may work out the modalities in coordination with respective Ministries/Departments.

Further, whenever the grid reaches in the off-grid area, the stand alone Solar Agriculture Pumps can be connected to the grid to feed surplus power depending on grid capacity. DISCOMs may purchase this surplus power from the farmer at the rate decided by the respective State/SERC.

DISCOMs/ Agricultural Department/ Minor Irrigation Department / any other Department designated by State Government will be the implementing agencies for this component. 2% of the eligible CFA will be provided as service charges in totality to all the agencies involved in implementation including the designated State Implementing Agency. Part of service charges (to be decided by MNRE) shall be given to the central agency for centralised tendering. Additionally, some part of the service charge may also be retained by MNRE for nation-wide centralized IEC activities.

a. Allocation and procurement of pumps

State-wise allocation of solar pumps will be issued by MNRE once in a year or as and when required, after approval by a Screening Committee under the chairmanship of Secretary, MNRE. Much before the start of every financial year during the Scheme tenure, MNRE will call for submission of demand from the implementation agencies. Based on overall target for the year and the demand received from implementation agencies, MNRE will allocate quantity of pumps to the implementation agencies in the States. On acceptance of the allocated quantity by the implementation agencies and submission of detailed proposal as per MNRE format, within a given time period, final sanction will be issued by MNRE. MNRE will have the discretion to amend the sanction any time of the year after ascertaining the pace of progress in any particular state, or as per requirements of the scheme.



Implementing agencies will submit proposals through online portal to MNRE for approval. Offline proposals will not be accepted, unless MNRE has given a general exemption from the requirement of online submission to any agency for any specific period of time.

Proposals for new installations will only be considered by the Screening Committee. Proposals wherein the systems have already been installed/ under installation will not be considered for approval under the Programme by the Screening Committee.

There will be centralized tendering of solar water pumping system through Central PSUs. These CPSUs will carry out tendering process as per Guidelines and standards & specifications issued by MNRE. Any deviation shall normally be not permissible except in specific cases with the approval of Secretary, MNRE.

For centralized tendering the designated CPSUs may come out region-wise/State-wise tenders, however, their role will be limited to selection of bidders and discovery of rates. To ensure quality and post installation services only manufacturers of solar water pumps or controllers or manufacturers of solar panels would be allowed to participate in the bidding process. Normally, three bidders would be selected and they have to match L1 rates and the quantity allocated to those who agree to match the L1 rates they would be 50%, 30%, and 20% of the total tender quantity respectively in the ascending order of rates quoted by them. Number of bidders selected may vary depending upon the tender quantity. The selection of beneficiaries and implementation of scheme would be the responsibility of the State Implementation Agency. Cluster based approach would be used for allocation of districts to the selected bidders to optimize the resources and ensure quality services made available to the farmer. As far as possible contiguous districts would be allotted to the successful bidders, with the total requirements of pumps in the allocated area matching the quantity allotted to them.

Installation of 17.5 lakh Stand-alone Solar Water Agriculture Pumping Systems will create solar PV capacity of over 8000 MW. Since pumps are generally used for 150 days in a year, this capacity can be optimally utilized by using Universal Solar Pump Controller (USPC), through which farmer can use solar power for other activities like operating chaff cutter, floor mill, cold storage, drier, battery charges, etc., and increase his income. Option would be given to the farmer to opt for USPC and additional cost of solar PV pumping system with USPC would be discovered by the tendering agency. The entire additional cost for solar pumping system with USPC would be borne by the farmer. States/UTs may bear this additional cost to facilitate use of solar energy for other activities and increasing the income of farmers.

In all cases, the successful bidder shall provide AMC for five years from the date of installation, real time monitoring, helpline, district level service centres and comply standards of performance in dealing with complaints/redressal mechanism.

The Implementation Agency would also be responsible for carrying out publicity of the scheme so as to increase awareness amongst potential beneficiaries. For this purpose, apart from their own publicity content, they shall also be guided by advice of MNRE on this matter.

b. Installation timeline and Penalties

Projects for installation of solar Agriculture pumps systems shall be completed within 12 months from the date of sanction by MNRE. However, for North Eastern States including Sikkim, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Lakshadweep and A&N Islands

this time limit will be 15 months from the date of sanction. Extension in project completion timelines, up to a maximum period of three months, will be considered at the level of Group Head in MNRE and upto 6 months at the level of Secretary in MNRE on submission of valid reasons by the implementing agency. However, such extension will attract reduction in service charges to implementing agency as under:

- a. 10% reduction in applicable service charges for delay of more than one month in completion of project.
- b. Further reduction of 10% of service charges for delay of more than two month and up to three months.
- c. Further reduction of 10% of service charges for delay of more than three month and up to six months
- d. No service charges for delay in completion of more than six months.

No extension will be granted beyond six months and only the systems which are installed in all respects and commissioned within stipulated time period will be considered for release of CFA.

c. Release of funds

Funds up to 40% of the applicable CFA for the sanctioned quantity would be released as advance to the implementing agency only after placement of letter of award(s) to the selected vendors. The implementing agencies may pass on this fund to the selected vendors in different stages on achievement of various milestones as per terms and conditions of letter of award(s). Second installment up to 30% of the applicable CFA would be released on submission of UCs and SoE for the first release. The balance eligible CFA along with applicable service charges would be released on acceptance of the Project Completion Report in the prescribed format, Utilization Certificates as per GFR and other related documents by the Ministry.

d. Monitoring and maintenance

Selected vendors shall be responsible for design, supply, installation and commissioning of solar agriculture pumps. Vendors will mandatorily provide AMC for a period of 5 years from the date of commissioning of the systems including insurance coverage for the installed systems against natural calamities and theft. AMC will include inspection by Vendor at least once in a quarter and submission of quarterly inspection report of the installed pumps as per prescribed format. To ensure timely maintenance of the systems the vendor shall have one authorized service centre in each operational district and a helpline in local language in each operational State. Helpline number shall be indicated on the pump/ controller at suitable location easily visible to the user.

All solar Agriculture pumps sanctioned under the Programme shall be provided with remote monitoring system by the vendor. It will be mandatory to submit performance data of solar power plant online to MNRE in the manner and format prescribed by MNRE.

Monitoring of the Scheme and its implementation will be carried out during the period of implementation of the Scheme as is given below:

- i. The implementing agency would be responsible for monitoring parameters such as end-use verification and compilation of statistical information.

- ii. Implementing agencies will submit monthly progress report for the sanctioned projects.
- iii. Funds may be released by implementing agency to the vendor on submission of bank guarantee equivalent to 10% of the cost of systems installed by that vendor for a period of five years. Alternatively, BG may be provided initially for a period of one year which may be extended on year to year basis thereafter.
- iv. The Ministry officials or designated agency may inspect the ongoing installation or installed plants. In case the installed systems are not as per standards, non-functional on account of poor quality of installation, or non-compliance of AMC, the Ministry reserves the right to blacklist the vendor. Blacklisting may inter-alia include the following:
 - a. The Vendor/Firm will not be eligible to participate in tenders for Government supported projects.
 - b. In case, the concerned Director(s) of the firm/company joins another existing or starts/ joins a new firm/company, the company will automatically be blacklisted.

e. Responsibilities of Implementation Agency

The Implementing Agencies will be responsible for the following activities:

- i. Demand aggregation for solar Agriculture pumps through online portal.
- ii. Prepare proposal and submit to MNRE for sanction
- iii. Oversee installation of systems.
- iv. Inspection of installed systems and online submission of completion reports to MNRE.
- v. Submission of utilization certificates and audited statement of expenditure through EAT module and disbursement of MNRE CFA.
- vi. Online submission of monthly and quarterly progress reports.
- vii. Ensure project completion within the given timelines and compliance of MNRE Guidelines and Standards.
- viii. Online and offline maintenance for records.
- ix. Real time monitoring through dedicated web-portal
- x. Performance monitoring of installed system through third party
- xi. Ensure compliance of AMC and training of locals by the vendors.
- xii. Carrying out publicity of the scheme so as to increase awareness, for which purpose advice of MNRE may also be adopted apart from its own publicity.
- xiii. Any other activity to ensure successful implementation of the programme.

III. Component C: Solarisation of 10 Lakh Grid Connected Agriculture Pumps

Under this Component, individual farmers having grid connected agriculture pump will be supported to solarise pumps. Solar PV capacity up to two times of pump capacity in kW is allowed under the scheme. However, State may specify lower solar PV capacity in kW, which

in any case shall be not be less than pump capacity in HP e.g. for 2 HP pump it will not be less than 2 kW. The farmer will be able to use the generated solar power to meet the irrigation needs and the excess solar power will be sold to DISCOMs. Water User Associations and community/cluster based irrigation system will also be covered under this component. However, priority would be given to small and marginal farmers. In order to minimize the water usage for irrigation purpose, preference will be given to the farmers using Micro irrigation systems or covered under Micro irrigation schemes or who opt for Micro irrigation systems.

Possibilities would be explored by implementing agencies for convergence of present scheme with schemes on promotion of micro irrigation system and replacement of agriculture pumps with energy efficient pumps and they may work out the modalities in coordination with respective Ministries/Departments.

It will be mandatory to use indigenously manufactured solar panels with indigenous solar cells and modules. Further, the balance of system should also be manufactured indigenously. The vendor has to declare the list of imported components used in the solarisation system.

CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component will be provided. The State Government will give a subsidy of 30%; and the remaining 40% will be provided by the farmer. Bank finance may be made available for farmer's contribution, so that farmer has to initially pay only 10% of the cost and remaining up to 30% of the cost as loan. In case the State Government provides subsidy more than 30%, the beneficiary share will reduce accordingly.

However, in North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component will be provided. The State Government will give a subsidy of 30%; and the remaining 20% will be provided by the farmer. Bank finance may be made available for farmer's contribution, so that farmer has to initially pay only 10% of the cost and remaining up to 10% of the cost as loan. In case the State Government provides subsidy more than 30%, the beneficiary share will reduce accordingly.

Further, the CFA will be limited to Solar PV capacity up to two times of pump capacity in kW for pumps up to 7.5 HP. Solarisation of Pumps of capacity higher than 7.5 HP may be allowed, however, the CFA will be limited to the CFA applicable for pump of 7.5 HP in the respective State/UTs. This will help to create an avenue for extra income to the farmers, and for the DISCOMs to meet their RPO targets. The solar power fed in to the grid and solar power utilized by farmer both will be accounted for fulfillment of solar RPO by the DISCOM.

DISCOM may adopt any of the modalities for solarisation of pumps viz, (i) Net-metering: in this case the agriculture pump will continue to run at rated capacity taking power from solar panels and balance power from grid, if required, and in case solar power generation is higher than required by pump, the additional solar power would be fed to the grid; (ii) Pump to run on solar power only: in this case the pump will run from the solar power as in case of stand-alone solar pump and no power will be drawn from the grid for operation of pump. In case solar power generation is higher than required by pump, the additional solar power would be fed to the grid.

DISCOMs /GENCO/ any other Department designated by State Government will be the implementing agencies. 2% of the eligible CFA will be provided as total service charges to all agencies implementing the scheme including the designated State Implementing Agencies. In case of centralised tendering, some percentage/fixed amount out of service charges (to be decided by MNRE) shall be given to the central agency. MNRE may also retain a certain amount from service charge for nation-wide centralised IEC activities.

This component will be applicable to farmers already connected to grid. Feeder-wise implementation is proposed to be carried out. All agriculture pumps in a feeder will be solarised, however, States may impose a minimum solarisation requirement for a feeder in terms of minimum % of pumps solarized on that feeder.

In case of dark zones/black zones only existing grid connected pumps will be solarized provided they use micro irrigation techniques to save water.

Possibilities would be explored by implementing agencies for convergence of present scheme with schemes on promotion of micro irrigation system and replacement of agriculture pumps with energy efficient pumps and they may work out the modalities in coordination with respective Ministries/Departments.

DISCOMs will purchase excess power from the farmer at the rate decided by the respective State/SERC. The DISCOMs will ensure "must-run" status to the solarised feeders and will keep such feeders 'ON' during sunshine hours of a day.

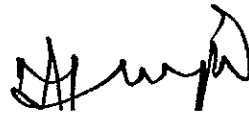
It will be mandatory for implementing agency to create remote monitoring system to monitor performance of the system post-installation.

States may also formulate state specific policy for grid connected solar pumps, customised to needs of the respective State, keeping the broad framework provided by MNRE intact.

a. Allocation of solarisation capacity and procurement

State-wise allocation for solarisation of pumps will be issued by MNRE once in a year, after approval by a Screening Committee under the chairmanship of Secretary, MNRE. In the beginning of every financial year during the Scheme tenure, MNRE will call for submission of feeder-wise demand for solarization. Based on overall target for the year and the demand received from implementation agencies, MNRE will allocate solarization capacity to the implementation agencies in the States. On acceptance of the allocated quantity by the implementation agencies and submission of detailed proposal as per MNRE format, with in a given time, final sanction will be issued by MNRE.

As per approval, the component is to be implemented on pilot mode for initial one lakh grid connected agriculture pumps and accordingly, initially this capacity will be allocated by MNRE to implementing agencies based on their demand and readiness for implementation of the component. Pilot projects will be continuously monitored during implementation and also on completion to evaluate the success of pilot run and a detailed report will be prepared for recommending further scaling up of the capacity under this component. Such evaluation may be done internally or through external agency as per decision of the MNRE.



Implementing agencies will submit proposals through online portal to MNRE for approval. Offline proposals will not be accepted, unless MNRE has given a general exemption from the requirement of online submission for any specific period of time.

Proposals for new installations will only be considered by the Screening Committee. Proposals wherein the pumps are already solarized prior to sanction of MNRE will not be considered for approval under the Scheme by the Screening Committee.

MNRE may specify either a centralized tendering of solarisation system through Central PSUs or by the State Implementation Agencies. These CPSUs or State Implementation agencies will carry out tendering process as per the Guidelines, standards and specifications issued by MNRE. Any deviation shall normally be not permissible except in specific cases with the approval of Secretary, MNRE

In case of centralized procurement the designated CPSUs may come out with region-wise/State-wise tenders, however, their role will be limited to selection of bidders. The selection of beneficiaries and implementation of scheme would be the responsibility of the State Implementation Agency.

In all cases, the bids shall require the successful bidder to provide for AMC for five years from the date of installation, helpline, district level service centres and comply standards of performance in dealing with complaints.

The Implementation Agency would also be responsible for carrying out publicity of the scheme so as to increase awareness amongst potential beneficiaries. For this purpose, apart from their own publicity content, they shall also be guided by advice of MNRE on this matter.

b. Installation timeline and Penalties

Projects for solarisation of pumping systems shall be completed within 12 months from the date of sanction by MNRE. However, for North Eastern States including Sikkim, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Lakshadweep and A&N Islands this time limit will be 15 months from the date of sanction. Extension in project completion timelines, up to a maximum period of three months, will be considered at the level of Group Head in MNRE and upto 6 months at the level of Secretary in MNRE on submission of valid reasons by the implementing agency. However, such extension will attract reduction in service charges to implementing agency as under:

- a. 10% reduction in applicable service charges for delay of more than one month in completion of project.
- b. Further reduction of 10% of service charges for delay of more than two month and up to three months.
- c. Further reduction of 10% of service charges for delay of more than three month and up to six months
- d. No service charges for delay in completion of more than six months.

No extension will be granted beyond six months and only the systems which are installed in all respects and commissioned within stipulated time period will be considered for release of CFA.



The implementing agencies after submitting proposal to MNRE may choose to start the preparatory activities including tendering process. However, the Letter of Award/Purchase Order shall be placed to the selected vendor(s) only after the issue of sanction letter by MNRE. Further, MNRE will not be responsible for any liabilities arising out of a situation where the proposal is eventually rejected.

c. Release of funds

Funds up to 40% of the applicable CFA for the sanctioned quantity would be released as advance to the implementing agency only after placement of letter of award(s) to the selected vendors. The implementing agencies may pass on this fund to the selected vendors in different stages on achievement of various milestones as per terms and conditions of letter of award(s). Second installment up to 30% of the applicable CFA would be released on submission of UCs and SoE for the first release. The balance eligible CFA along with applicable service charges would be released on acceptance of the Project Completion Report in the prescribed format, Utilization Certificates as per GFR and other related documents by the Ministry.

d. Monitoring and maintenance

Selected vendors shall be responsible for all aspects of solarisation viz., design, supply, installation and commissioning. Vendors will mandatorily provide AMC for a period of 5 years from the date of commissioning of the systems including insurance coverage for the installed systems against natural calamities and theft. AMC will include submission of quarterly inspection report of the installation as per prescribed format. To ensure timely maintenance of the systems the vendor shall have one authorised service centre in each operational district and a helpline in local language in each operational State.

Under the Programme along with solarisation, the vendor shall also provide a remote monitoring system. It will be mandatory to submit quarterly maintenance report along with performance data of solar power plant online to MNRE in a manner and format prescribed by MNRE.

Monitoring of the Scheme and its implementation will be carried out during the period of implementation of the Scheme as is given below:

- i. The implementing agency would be responsible for monitoring parameters such as end-use verification and compilation of statistical information.
- ii. Implementing agencies will submit monthly progress report for the sanctioned projects.
- iii. Funds may be released by implementing agency to the vendor on submission of bank guarantee equivalent to 10% of the cost of systems installed by that vendor for a period of five years. Alternatively, BG may be provided initially for a period of two years which may be extended on year to year basis thereafter.
- iv. The Ministry officials or designated agency may inspect the ongoing installation or installed plants. In case the installed systems are not as per standards, non-functional on account of poor quality of installation, or non-compliance of AMC, the Ministry reserves the right to blacklist the vendor. Blacklisting may inter-alia include the following:

- a. The Vendor/Firm will not be eligible to participate in tenders for Government supported projects.
- b. In case, the concerned Director(s) of the firm/company joins another existing or starts/ joins a new firm/company, the company will automatically be blacklisted.

e. Responsibilities of Implementation Agency

The Implementing Agencies will be responsible for the following activities:

- i. Issue additional instructions/ conditions such as minimum solarisation level of feeder.
- ii. Issue connectivity standards/regulations, if required, and facilitate connection to the grid.
- iii. Selection of feeder for solarisation and demand aggregation for solarisation of pumps.
- iv. Prepare proposal and submit to MNRE for sanction
- v. Conduct tendering process as per MNRE guidelines
- vi. Oversee installation of systems.
- vii. Inspection of installed systems and online submission of completion reports to MNRE.
- viii. Disbursement of MNRE CFA and submission of utilization certificates and audited statement of expenditure through EAT module.
- ix. Online submission of monthly and quarterly progress reports.
- x. Ensure project completion within the given timelines and compliance of MNRE Guidelines and Standards.
- xi. Online and offline maintenance for records.
- xii. Real time monitoring through dedicated web-portal
- xiii. Performance monitoring of installed system through third party
- xiv. Ensure compliance of AMC and training of locals by the vendors.
- xv. Carrying out publicity of the scheme so as to increase awareness, for which purpose advice of MNRE may also be adopted apart from its own publicity.
- xvi. Any other activity to ensure successful implementation of the programme.

4. Quality Assurance and Evaluation Mechanism

Systems installed under this Programme should meet technical specification and construction standards as specified by BIS and MNRE from time to time. Non-compliance will be taken seriously to the extent of blacklisting of the vendor, in the same manner as specified, apart from taking action under any other law in force. In case of centralized tendering the CPSUs will be responsible for performance evaluation of the selected vendors. Evaluation of pilot implementation of Component-A and Component-C will be carried out through third party selected for this purpose. In order to ensure, the scheme meets expected outcomes continues evaluation of scheme would be undertaken and mid-course correction, as required, shall be implemented.



5. Interpretation of the Guidelines

In case of any ambiguity in interpretation of any of the provisions of these guidelines, the decision of the Ministry shall be final.

The Guidelines would be reviewed by the Ministry from time to time and necessary modifications would be incorporated after getting approval of Minister, NRE.



F. No. 32/54/2018- SPV Division
Government of India
Ministry of New & Renewable Energy

Block No.14, CGO Complex
Lodi Road, New Delhi 110003
Dated: 20 September 2019

ORDER

Subject: Sanction of standalone solar pumps in Punjab under Component-C of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM KUSUM)

With reference to demand received from the Government of Punjab vide letter no. 10679 dated 03.09.2019 for solarization of grid-connected agricultural pumps under Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM KUSUM) Scheme, I am directed to convey the sanction of President of India for **solarization of 3900 nos. of grid connected agricultural pumps to Punjab Energy Development Agency (PEDA)**, the State Implementing Agency under Component-C of PM KUSUM Scheme.

2. The project commissioning timeline shall be as mentioned in the Guidelines for implementation of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan issued vide order no. 32/645/2017-SPV Division dated 22.07.2019 (copy attached) and the time will be counted from the date of issue of this sanction order. PEDA shall submit progress reports and completion reports on the online portal for off-grid solar programme.

3. PEDA shall follow all the terms and conditions stipulated in the Guidelines of the above mentioned Scheme issued vide Order no. 32/645/2017-SPV Division dated 22.07.2019 and amendments thereof. PEDA shall follow the Scheme Guidelines for selection of beneficiary farmer. Further, systems installed under the Scheme should meet technical specification and construction standards as specified by BIS and MNRE from time to time.

4. PEDA shall carry out various activities as mentioned under Section on Responsibilities of State Implementation Agency under Component-C of the Guidelines, including creating awareness about the scheme. MNRE may retain a certain amount from service charge for nation-wide centralised IEC activities.

5. Eligible CFA and service charges would be released to PEDA as per provisions of Administrative Approval dated 08.03.2019 and terms and conditions stipulated in the Scheme Guidelines. CFA will be worked out based on benchmark cost as amended from time to time or the tender cost, whichever is lower.

6. PEDA will ensure use of indigenously manufactured solar panels with indigenous solar cells and modules. It will be mandatory to use indigenously manufactured solar panels with indigenous solar cells and modules. Further, the balance of system should also be manufactured indigenously. The vendor shall provide declaration to PEDA with a list of imported components used in the solarisation system.

9. In terms of the Rule 230 (1) of GFR, concerned PEDDA will certify that they have not obtained or applied for grants for the same purpose or activity from any other Ministry or Department of the Government of India or State Government.

10. In terms of provisions contained in Rule 236(i) of GFR 2017, the account of concerned PEDDA shall be open to inspection by the sanctioning authority and audit (both by CAG of India and Internal Audit by the Principal Accounts Office of the MNRE), whenever the organization is called upon to do so.

11. PEDDA will furnish year wise Utilization Certificate (UC) in the prescribed format of GFR-12(A) and Audited Statement of Expenditure (ASoE) along with detailed progress report periodically as per provisions of the scheme.

12. As per Rule 234 of GFR-2017, the sanction has been entered at S. No. 02 & Page No. 11 in the Expenditure Register of this Division.

13. This issues with the approval of Competent Authority.



(Shobhit Srivastava)
Scientist C

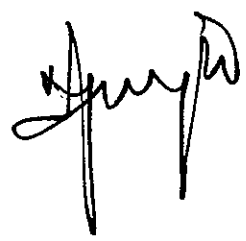
Phone No: 011-24360707/1016

To

Director, Punjab Energy Development Agency (PEDDA)

Copy to:

- 1. Principal Director of Audit, Scientific Dept., DG, ACR Building, IP Estate, N. Delhi
- 2. AG, CW & M.II (Science Audit), AGCR Building, New Delhi
- 3. Pay and Accounts Officer, MNRE
- 4. IFD, MNRE
- 5. Sanction folder



Email

smsps@peda.gov.in

Fw: Petition under component-C of PM- KUSUM Scheme

From : se-dsm <se-dsm@pspcl.in> Tue, Feb 18, 2020 03:25 PM
Subject : Fw: Petition under component-C of PM- KUSUM Scheme 📎 1 attachment
To : EC <peda.ec@gmail.com>
Cc : Parkash Chand Bains <smsps@peda.gov.in>

This office has gone through your draft petition. Following points need to be reviewed:

1. Rate of depreciation (1 to 13 years) be taken as 5.28% instead of 5.77% as per CEE order 2019-20.
2. Rate of depreciation (14 to 25 years) be taken as 1.78% instead of 1.25%.
3. Income tax rate for new domestic electricity generation firms has been reduced from 25% to 15% in the latest budget. If the project is commissioned before March 2023 & no MAT is payable by these companies (Copy attached), the same be incorporated in the petition for getting the benefit of reduced taxes.
4. CUF be taken as 19%.

In view of the above, it is requested to review the above changes in the petition.

Regards:
 Dy.CE/ DSM
 PSPCL, Patiala

Dy.CE/ DSM
 PSPCL, Patiala

From: Parkash Chand Bains <smsps@peda.gov.in>
Sent: Monday, February 17, 2020 1:03 PM
To: se-dsm <se-dsm@pspcl.in>
Subject: Petition under component-C of PM- KUSUM Scheme

Please refer to your email dt. 14.02.2020. As suggested point No. 22 of the petition to be filed in PSERC under component-C of PM-KUSUM scheme has been replaced as per MNRE, GOI latest guidelines. The copy of the petition is attached herewith. You are requested to give your concurrence for the same at the earliest so that the petition may be filed in PSERC in time.

Thanking you

1. 2

Annexure P-IV

CUF of solar power plants of capacity 1 to 4 MW installed in Punjab since the year 2014 to 2017 as per power purchased by PSPCL during 2017-18

Sr. No.	Name of solar power Project	Installation year	Installed capacity (MW)	Offer to PSPCL (MW)	Energy exported (MU)	CUF during 2017-18	CUF during setting up year of the project
1	Abundant Energy, China Bidhi Chand Sur Singh	2015	2	2	2.62	14.95	15.26
2	Radiant, Pathrala, Bathinda	2016	3	3	4.06	15.45	15.61
3	Abundant Energy-II	2016	1	1	1.37	15.64	15.80
4	IK Energy, Lallian Kalan	2015	1	1	1.38	15.75	16.07
5	Azure Power-III (Punjab Sikha wala)	2014	4	4	5.57	15.90	16.38
6	Nextgen Solux-II Jhunir Kalan	2016	1	1	1.4	15.98	16.14
7	Omega infra. Chaurwala, Fatehgarh Sahib	2017	1	1	1.41	16.10	16.10
8	SAM SOLAR P. Ltd Nidampur, Sangrur	2017	2.5	2.5	3.55	16.21	16.21
9	Welspun Energy – IV Tiona	2015	4	4	5.77	16.47	16.80
10	Allianz Ecopower, Mirpur Kalan, Sardulgarh	2015	2	2	2.91	16.61	16.95
11	Oasis green, Bahadupur, Budhlada	2016	3	3	4.42	16.82	16.99
12	Madhav Solar, Boha, Budlada	2014	2	2	2.98	17.01	17.53
13	Vivaan Solar P. Ltd. Bajak	2016	2	2	2.98	17.01	17.18
14	Astor Solar, Jhunir, Mansa	2016	1	1	1.49	17.01	17.18
15	Mokia Green Energy Pvt. Ltd. Boha	2015	4	4	5.96	17.01	17.35
16	Purshotam Ind. Bajak	2016	3	3	4.48	17.05	17.22
17	Magnificent Power, Jhunir	2016	1	1	1.53	17.47	17.64
18	JSSK Energy, Bhagsar	2015	1	1	1.54	17.58	17.94
19	Aditya Medi sales, Lalpur	2015	4	4	6.16	17.58	17.94
20	Atma powers lakewali	2015	2	2	3.11	17.75	18.11
21	Nextgen Solux-I Mirpur Kalan	2015	1	1	1.56	17.81	18.17
22	Continental Eng & Power Ltd. Kotshmir	2016	1	1	1.55	17.69	17.87
23	Madhav Solar, Boha, Budlada	2014	2	2	3.15	17.98	18.53
24	Northstar Solar Power Pvt. Ltd., Pathrala	2015	4	4	6.26	17.87	18.23
25	Focal CAL Energy Nangla, Talwandi Sabo	2015	4	4	6.34	18.09	18.46
26	TR Energy, Jandwala Mirsangla, Fazilka	2015	2	2	3.26	18.61	18.99
27	TR Energy, Pathrala, Bathinda	2016	1	1	1.68	19.18	19.37
	Total capacity and Average CUF		59.5	59.5	88.49	16.98	17.26

CUF of solar power plants of capacity 1 to 4 MW installed in Punjab since the year 2014 to 2017 as per power purchased by PSPCL during 2018-19.

Sr. No.	Name of solar power Project	Year of Installation	Capacity (MW)	Offer to PSPCL (MW)	Energy Procured by PSPCL (MU)	CUF during 2018-19	CUF during setting up year of the project
1	Radiant, Pathrala, Bathinda	2016	3	3	3.95	15.03	15.34
2	Abundant Energy-II	2016	1	1	1.34	15.30	15.61
3	Welspun Energy – IV Tiona	2015	4	4	5.43	15.50	15.97
4	SAM SOLAR P. Ltd Nidampur, Sangrur	2017	2.5	2.5	3.4	15.53	15.68
5	Azure Power-III (Punjab Sikha wala)	2014	4	4	5.46	15.58	16.22
6	IK Energy, Lallian Kalan	2015	1	1	1.38	15.75	16.24
7	Omega infra. Chaurwala, Fatehgarh Sahib	2017	1	1	1.38	15.75	15.91
8	Allianz Ecopower, Mirpur Kalan, Sardulgarh	2015	2	2	2.77	15.81	16.29
9	Oasis green, Bahadupur, Budhlada	2016	3	3	4.18	15.91	16.23
10	Madhav Solar, Boha, Budlada	2014	2	2	2.81	16.04	16.70
11	Welspun Tiona	2016	2	2	2.85	16.27	16.60
12	Northstar Solar Power Pvt. Ltd., Pathrala	2015	4	4	5.83	16.64	17.15
13	Aditya Modi sales, Lalpur	2015	4	4	5.85	16.70	17.21
14	Madhav Solar, Boha, Budlada	2014	2	2	2.93	16.72	17.41
15	Purshotam Ind. Bajak	2016	3	3	4.41	16.78	17.12
16	Vivaan Solar P. Ltd. Bajak	2016	2	2	2.95	16.84	17.18
17	Mokia Green Energy Pvt. Ltd. Boha	2015	4	4	5.91	16.87	17.38
18	Atma powers lakewali	2015	2	2	2.96	16.89	17.41
19	Continental Eng & Power Ltd. Kotshmir	2016	1	1	1.51	17.24	17.59
20	Nextgen Solux-II Jhunir Kalan	2016	1	1	1.51	17.24	17.59
21	Focal CAL Energy Nangla, Talwandi Sabo	2015	4	4	6.05	17.27	17.79
22	Nextgen Solux-I Mirpur Kalan	2015	1	1	1.52	17.35	17.88
23	JSSK Energy, Bhagsar	2015	1	1	1.52	17.35	17.88
24	TR Energy, Jandwala Mirsangla, Fazilka	2015	2	2	3.07	17.52	18.06
25	Magnificent Power, Jhunir	2016	1	1	1.54	17.58	18.12
26	TR Energy, Pathrala, Bathinda	2016	1	1	1.56	17.81	18.17
27	Astor Solar, Jhunir, Mansa	2016	1	1	1.59	18.15	18.52
	Total capacity and Average CUF		59.5	59.5	85.66	16.43	17.01

CUF of the projects, power purchase by PSPCL during 2017-18 = 17.26%

UF of the projects, power purchase by PSPCL during 2018-19 = 17.01%

Aggregate CUF = $(17.26 + 17.01) / 2 = 17.14\%$

IN THE PUNJAB STATE ELECTRICITY REGULATORY COMMISSION AT CHANDIGARH

In re:

Punjab Energy Development Agency } Appellant or Petitioner
 Plaintiff

VERSUS

Defendant

Respondent

KNOW ALL to whom these presents shall come that I/We, the undersigned appoint

ADITYA GROVER, ARJUN GROVER & POOJA R. SHARMA
P-754/2005 P-2186/2014 P-457/2018

ADVOCATES

M:9356266033 M:9814976813 M:9316224636

OFFICE: H. NO. 31, SECTOR-11, PANCHKULA (HARYANA)-134109.

Email: adityagrover2008@gmail.com

To be the Advocate for the Petitioner.....
 in the above mentioned case to do all the following acts, deeds and things or any them, that is to say :-

1. To act, appear and plead in the above mentioned case in this Court or any other Court in which the same may be tried or heard in the first instance or in Appeal or Letters Patent Appeal or Review or Revision or Execution or in any other stage of its progress until its final decision.
2. To present pleadings, Appeals, Letters Patent Appeals, Petition for Appeal, Cross-Objections or petitions for executions, review, revisions, withdrawal, compromise, to other petitions or affidavits or other documents as shall be deemed necessary or advisable for the prosecution of the said case in all its stages.
3. To withdraw or compromise the said case or submit to arbitration, any differences or disputes, that shall arise touching or in any manner relating to the said case.
4. To receive moneys and grant receipts thereof and to do all other acts and things which may be necessary to be done for the progress and in the course of the prosecution of the said case.
5. To employ any other Legal Practitioner/Advocate authorizing him to exercise the powers and authorities hereby conferred on the Advocate whenever he may think fit to do so.

And I/We hereby agrees to rectify whatever the Advocate or his substitute shall do in these premises and in this connection.

And I/We hereby agrees not to hold the Advocate or his substitute responsible for the result of the said case in consequence of his absence from the Court when the said case is called up for hearing.

And I/We hereby agree that in the event of the whole or any part of the fee agreed by me/us to be paid to the Advocate remaining unpaid, he shall be entitled to withdraw from the prosecution of the said cause until the same is paid.


And I/We hereby agree that the Advocate will not be bound to appear for us if the case is transferred to any other Court or the Court sits at any place other then its normal place of setting.

IN WITNESS WHEREOF, I/WE hereunto set my/our hands to these presents, the contents of which have been explained to and understood be me/us.

This the Day of2020

Accepted

  
ADITYA GROVER, ARJUN GROVER & POOJA R. SHARMA
ADVOCATES


 (Signature/thumb impression of client)



PUNJAB
ENERGY DEVELOPMENT
AGENCY
(A Punjab Govt. Undertaking)

43

No. : 2156

Dated : 5/3/2020

Authority Letter

Sh. M.P Singh, Director, Punjab Energy Development Agency (PEDA) is hereby authorized to sign the petitions to be filed in Punjab State Electricity Regulatory Commission (PSERC) for determination of levelized feed in tariff for sale of surplus power to be generated by grid connected agriculture pumps under component-C of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) scheme launched by Ministry of New and Renewable Energy (MNRE) Govt. of India.


Navjot Pal Singh Randhawa
Chief Executive, PEDA

SOLAR PASSIVE COMPLEX

PLOT NO. 1-2, SECTOR 33-D, CHANDIGARH (U.T.) - 160 034 Tel. : 0172-2663328, 2663382
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44