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BEFORE THE HON'BLE PUNJAB STATE ELECTRICITY REGULATORY
COMMISSION AT CHANDIGARH

Petition No. 51 of 2017

IN THE MATTER OF:-

Petition filed by PSPCL under Section 86(1) (e) of the Electricity Act, 2003 read with Regulation 6(2) and Regulation 7 of the PSERC (RPO & its Compliance) Regulations, 2011 framed by the Hon'ble Commission for carrying forward of shortfall of Renewable Purchase Obligation (RPO) for FY 2016-17 specified in Clause 3 (1) to FY 2017-18.

....Petitioner

IT IS MOST RESPECTFULLY SHOWETH:

1. The Petitioner i.e. Punjab State Power Corporation Limited (here in after referred to as "PSPCL" or "The Corporation") is filing the present petition before the Hon'ble Commission seeking carry forward of the deficit in the achievement of RPO for the year 2016-17 to be fulfilled in the year 2017-18, as detailed in the petition hereunder.
2. This Hon'ble Commission vide Notification No. PSERC/Secy./Reg./55 dated 03.06.2011 has notified the Punjab State Electricity Regulatory Commission (Renewable Purchase Obligation and its compliance) Regulations, 2011 (hereinafter referred to as "Regulation") where under the Hon'ble Commission has specified the RPO requirements for the obligated entity for the years 2011-12 onwards.
3. The Regulations provide for the procedure, target and manner of fulfillment of RPO. The relevant Regulations for the purpose of the instant petition are reproduced hereinunder:

"2. Definitions and Interpretation

(1) *In these Regulations, unless the context otherwise requires,*

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l) **'renewable energy sources'** means renewable sources such as small hydro, wind, solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban or municipal waste and such other sources as recognized or approved by MNRE;

m) **'renewable purchase obligation'** means the requirement specified by the Commission under clause (e) of sub-section (1) of section 86 of the Act, for the obligated entity to purchase electricity from renewable energy sources;

.....

3. Renewable Purchase Obligation

(1) Every obligated entity shall purchase electricity from renewable energy sources including solar, not less than a percentage specified by the Commission from time to time, of its consumption of electricity (energy input in the system of obligated entity at its boundary) under the Renewable Purchase Obligation (RPO);

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(2) The Commission may, either on its own motion or on recommendation of the State Agency or on receipt of an application from the obligated entity, revise the percentage targets specified hereinabove, for any year, as deemed appropriate.

.....

6. Effect of default

(1) If the obligated entity does not fulfill the renewable purchase obligation as provided in these Regulations during any year and also does not purchase the certificates, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by such obligated entity, such amount as the Commission may determine on the basis of the shortfall in units of renewable purchase obligation and the forbearance price decided by the Central Commission;

Provided that the fund so created shall be utilized, as may be directed by the Commission, for purchase of the certificates;

Provided further that the Commission may empower an officer of the State Agency to procure from the power exchange the required number of certificates to the extent of the shortfall in the fulfillment of the obligations, out of the amount in the fund;

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Provided also that the distribution licensee shall be in breach of its licence conditions if it fails to deposit the amount directed by the Commission within 15 days of the communication of the direction.

(2) Where any obligated entity fails to comply with the obligation to purchase the required percentage of electricity from renewable energy sources or the renewable energy certificates, it shall also be liable for penalty as may be decided by the Commission under section 142 of the Act;

Provided that in case of genuine difficulty in complying with the renewable purchase obligation because of non-availability of certificates or otherwise, the obligated entity can approach the Commission for carrying forward of compliance requirement to the next year;

Provided that on being so approached, the Commission may review the fulfillment of the renewable purchase obligation by the obligated entity, keeping in view its performance and allow the shortfall to be carried forward to the next year in addition to the renewable purchase obligation for that year. At the end of 3 years period, the Commission may, if deemed appropriate, review the fulfillment of renewable purchase obligation by the obligated entity and pass suitable order(s);

Provided that where the Commission has consented to the carry forward of compliance requirement, the provision of clause (1) of the Regulation or the provision of section 142 of the Act shall not be invoked.

7. Inherent powers of the Commission

Nothing in these Regulations shall be deemed to limit or otherwise affect the inherent powers of the Commission to make such orders as may be necessary for ends of justice or to prevent the abuse of process envisaged in these Regulations."

4. In terms of the RPO Regulations, the RPO obligation for the year 2016-17 was 5.4 % out of which 1.3 % was Solar Power and 4.1 % was Non-Solar Power (total 5.4%). The RPO Targets are as under:

Table-1

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Non-Solar	2.37	2.83	3.37	3.81	3.9	4.1	4.2	4.3	4.5

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RPO (%)									
Solar RPO (%)	0.03	0.07	0.13	0.19	1.0	1.3	1.8	2.2	2.5
Total	2.4	2.9	3.5	4.0	4.9	5.4	6.0	6.5	7.0

5. While it has been the best endeavor of PSPCL to ensure the compliance of the RPO targets, it has been experiencing difficulties for achievement of the said targets within the same year. In view of the above, the Hon'ble Commission vide order dated 21/03/2017 permitted PSPCL to carry forward the shortfall in RPO compliance of FY 2015-16 to FY 2016-17. Accordingly, the Commission allowed PSPCL to carry forward the shortfall in RPO compliance of 1577.65 MU [1498.56 MU (Non-Solar) and 79.09 MU (Solar)] for FY 2015-16 to FY 2016-17.

Table-2

Sr. No.	Description	2015-16
1	Cumulative Shortfall in RPO Compliance	
	i) Non-Solar(MUs)	1498.56
	ii)Solar(MUs)	79.09
	Total	1577.65

6. Status of RPO Targets/Achieved for FY 2016-17

Table-3

Sr. No.	Description	2016-17 (Projected)
1	Input Energy (in MUs) (Projected)	51989
2	RPO Targets	
	i) Non-Solar(%)	4.1
	ii)Solar(%)	1.3
	iii) Non-Solar(MUs)	2131.55
	iv)Solar(MUs)	675.86
3	NRSE Power Purchased	

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	i) Non-Solar (MUs)	1209.11
	ii) Solar (MUs)	926.31
4	RECs Purchased (Equivalent Energy)	
	i) Non-Solar(MUs)	66.67
	ii) Solar(MUs)	0
5	Total Equivalent NRSE Energy (3+4)	
	i) Non-Solar(MUs)	1275.78
	ii) Solar(MUs)	926.31
6	Shortfall excluding compliance of carry forward of previous FY	
	i) Non-Solar (MUs)	-855.77
	ii) Solar (MUs)	250.46
7	Net Compliance for the current year	
	i) Non-Solar (%)	2.45
	ii) Solar (%)	1.78
8	Carry Forward of previous FY	
	i) Non-Solar(MUs)	-1498.56
	ii) Solar(MUs)	-79.09
9	Cumulative Shortfall in RPO Compliance	
	i) Non-Solar(MUs)	-2354.33
	ii) Solar(MUs)	171.37

7. As mentioned above in the Table-3, the RPO obligation for the year 2016-17 was 5.4 % out of which 1.3 % was Solar Power and 4.1 % was Non-Solar Power (total 5.4%). Accordingly, planning was done considering various stakeholders involved to achieve the targets. PSPCL on its part has undertaken the following initiatives to meet the targets:
- a. It is respectfully submitted that PSPCL has acted in a bona fide manner and taken all efforts to procure renewable energy for fulfillment of RPO. In this regard, PSPCL also sought to procure renewable energy on short term basis from sources outside the State of Punjab. A tender was called in December 2016 in this regard. However, no response for the period Dec. 2016 to March 2017 was received. Response for May, 2017 to Sept., 2017 was received and PSPCL has issued LOI to purchase the RE Power (Non-Solar) 50 MW each from M/s NVVNL & M/s APPCPL. From which it is estimated that PSPCL will get about 370 MUs during FY 2017-18.

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- b. PSPCL has also participated in Tender called by HPSEBL to sale of RE Power (Non-Solar) and LOI has been issued by HPSEBL to sale of RE Power different quantum from May 2017 to September 2017. It is expected that PSPCL shall able to get the 775MUs from the HPSEBL.
 - c. It is also intimated that PSPCL was undergoing financial constraints for the past couple of months of 2016-17 and could not purchase Non-Solar RECs for the shortfall for an amount of Rs. 242 crores. However, RECs equivalent to 66.67MUs (666666 REC units) of Rs. 10 Crores (app.) was purchased from PXIL.
- As regards the fulfillment of Solar Target, PSPCL had procured 926.31 MUs against the target of 675.86 MUs in FY 2016-17 i.e. surplus of 171.37MUs after adjusting short fall of FY 2015-16 (79.09MUs).
 - For Non-Solar, PSPCL had procured 1209.11 MUs from Pvt. Developers and from its own projects. RECs equivalent to 66.67MUs had also been purchased during FY 2016-17.

8. Role of PEDANA-Nodal Agency

Under the provision of NRSE Policy-2012, PEDANA is the designated nodal agency for exploitation of available potential of renewable energy in State of Punjab & further responsible for implementation of Renewable Projects. PEDANA identifies such project and signs Implementation Agreement (IA) with such developers and PSPCL is to enter into long term power purchase agreement with the developers of these projects coming up in the State under the Policy.

It is submitted that PSPCL has been purchasing all the NRSE power which is offered to it by projects developed through PEDANA. A total of 10.7 MW of Non-Solar Projects against 59.8 MW as projected by PEDANA as per the details given below which were expected to be commissioned by 2016-17.

Table-4

(Capacity to be added during FY 2016-17 Projection made by PEDANA)

Sr. No	RE Capacity	Bio-Mass (MW)	Co-Gen (MW)	Small Hydro (MW)	Bio-gas + Waste (MW)	Total (MW)
1	Projections of FY 2016-17*	30	18	9.8	2	59.8
2	Actual commissioned	0	0	10.2	0.5	10.7

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* As per PED A letter dated 09.04.2015

However, despite the best efforts of PSPCL to procure NRSE Power, there has been a shortfall in the actual delivery of renewable energy to PSPCL resulting in constraints in meeting RPO targets.

On the basis of the information furnished by PED A for the projection of the projects to be added in future and projects in the pipe line, the RPO target has been fixed by the State Commission. However, as detailed in above table the actual RE Capacity addition has been much less than anticipated.

9. **Major Reasons for Shortfall in RPO targets for FY 2016-17**

In brief, main reasons, which are responsible for non-achievement of the Non-Solar targets, are as follow:

- i. Delay in commissioning of the new NRSE Projects by the developers resulting in slippage of capacity addition.
- ii. Some of the projects which were due for commissioning FY 2010, 2011, 2012, 2013, 2014 & 2015 are still to be commissioned.
- iii. The projects in operation are not generating RE power as per their full capacity due to various reasons.
- iv. Cancellation of the NRSE projects by PED A during FY 2015-16 & FY 2016-17, considered for RPO targets.
- v. These projects would have contributed to RPO compliance 877 MUs (521+356=877 MUs of Non-Solar) if the same were commissioned by FY 2016-17.
- vi. It is respectfully submitted that the primary obligation and endeavor of PSPCL is to procure renewable power in physical form. The definition of renewable energy sources in the Regulations of the Hon'ble Commission is electricity in physical form and the same expression is used in Regulation 3 fixing the RPO targets.
- vii. It is also in the best interest of the public at large that electricity in physical form is procured as it ensures availability of electricity to the public at large while also promoting renewable energy capacity addition in the State.

- viii. The Regulations of the Hon'ble Commission do provide for fulfillment of the RPO targets by the alternative mechanism of Renewable Energy Certificates (RECs). This is to be considered by PSPCL as a default mechanism wherein instead of procuring electricity in physical form an option is provided to the licensee to procure RECs and not purchase electricity.
- ix. However, as detailed above, PSPCL has already entered in procurement of renewable electricity for a substantial capacity and has been fulfilling the RPO obligations to a large extent. The previous carry forward has been fully met by PSPCL.
- x. It is also relevant to mention that PSPCL was undergoing financial constraints for the past couple of months of 2016-17 and could not purchase Non-Solar RECs for the shortfall for an amount of **Rs. 242 crores**. However, RECs equivalent to 66.67MUs (666666 REC units) of Rs. 10 Crores (app.) was purchased from PXIL.
10. In the circumstances mentioned above, there has been a total RPO shortfall of 855.77 MUs Non-Solar & RPO surplus for 250.46 MUs Solar MUs(excluding the carry forward to FY 2015-16) tabulated below (Ref Table-5).

Table-5

Sr. No.	Description	2016-17 (Projected)
1	Input Energy (in MUs) (Projected)	51989
2	RPO Targets	
	i) Non-Solar(%)	4.1
	ii)Solar(%)	1.3
	iii) Non-Solar(MUs)	2131.55
	iv)Solar(MUs)	675.86
3	NRSE Power Purchased	
	i)Non-Solar (MUs)	1209.11
	ii)Solar (MUs)	926.31
4	RECs Purchased (Equivalent Energy)	
	i) Non-Solar(MUs)	66.67
	ii)Solar(MUs)	0
5	Total Equivalent NRSE Energy (3+4)	
	i) Non-Solar(MUs)	1275.78

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	ii)Solar(MUs)	926.31
6	Shortfall excluding compliance of carry forward of previous FY	
	i)Non-Solar (MUs)	-855.77
	ii)Solar (MUs)	250.46
7	Net Compliance for the current year	
	i)Non-Solar (%)	2.45
	ii)Solar (%)	1.78

11. It is further submitted that many of the expected renewable projects being developed by PSPCL are in the process of being commissioned. For some of the projects, the date of commissioning has rolled over to the next year, for reasons beyond the control of PSPCL. These include the following:

(a) Commissioning of 18 (2x9) MW MHP Stage-II, Distt. Hoshiarpur.

All the material has been reached at site. However, due to some technical problems, the same has not been commissioned so far. The connection of head race of Power House with main channel has been completed. Second unit of 2x9MW of the Project has been commissioned on 19.05.2017.

(b) 4 Micro Hydel Projects:

The PPAs have been signed with M/s Kotla Hydro Power Pvt. Ltd. for 3 nos project out of four. As per PPAs, the firm has to complete the work of renovation within 12 months. It is expected all 3 units shall put on bar by Dec., 2017. Negotiation for 4th project is also going on.

(c) Revival of the 10 MW Rice Straw based project at Jalkheri:

The PSPCL has assigned the work of renovate, operate & transfer (ROT) basis to SE/Civil Hydel Design, PSPCL, Chandigarh. The Request for proposal (RFP) for inviting tenders to lease out the project is being prepared. As per the stipulation of the RFP, the successful bidder is required to execute a PPA with PSPCL for sale of power on re commissioning of this project.

12. **Less generation from existing/ newly commissioned NRSE projects**

It is further submitted that the generation from the existing NRSE Projects have been less as compared to the expected generation. This has also contributed to

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the shortfall in the RPO for the year 2016-17 and is clearly beyond the control of PSPCL.

13. **Status of RPO Compliance:**

The detail of RE Energy Purchased /Procured during the Financial Year 2015-16 after adjusting the shortfall of 2014-15 is as under:

Table-6

Sr. No.	Description	2016-17 (Projected)
1	Input Energy (in MUs) (Projected)	51989
2	RPO Targets	
	i) Non-Solar(%)	4.1
	ii) Solar(%)	1.3
	iii) Non-Solar(MUs)	2131.55
	iv) Solar(MUs)	675.86
3	NRSE Power Purchased	
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7	Net Compliance for the current year	
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8	Carry Forward of previous FY	
	i) Non-Solar(MUs)	-1498.56
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9	Cumulative Shortfall in RPO Compliance	
	i) Non-Solar(MUs)	-2354.33
	ii) Solar(MUs)	171.37

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From the above Table-6, it can be seen that the Shortfall excluding compliance of carry forward of 2015-16 for the FY 2016-17 is 855.77 MUs Non-Solar and Surplus of 250.46 MUs Solar Energy. The net short fall for the FY 2016-17 after considering the carry forward of previous year i.e. FY-2015-16 is 2354.33 MUs of Non-Solar and net surplus of 171.37 MUs of Solar and this shortfall of Non-solar needs to be carried forward to next year i.e., FY 2017-18.

14. The achievement of RPO targets during FY 2016-17 by PSPCL has been regularly conveyed by PSPCL. It has also been submitted that despite best efforts to procure RE Power from all the available resources, PSPCL was not in a position to achieve RPO targets during FY 2016-17 due to reasons beyond its reasonable control simultaneously praying that on account of the same the Net shortfall in RPO compliance be allowed as carried forward to FY 2017-18.
15. As discussed in foregoing paragraphs, the RPO targets set by PSERC could not be achieved in full by PSPCL due to reasons which are beyond the reasonable control of PSPCL and despite exercise of due diligence by the petitioner.
16. It is expected that Non-solar power available from all sources (within Punjab and outside Punjab) in FY 2017-18 shall be available to the extent of 2571 MUs (1426+370+775) against the target of 2345 MUs.
+ 4.2% N.S. 51/10,000, 2200 MU
17. In terms of the RPO Regulations, the Hon'ble Commission exercises wide powers. The Hon'ble Commission under Regulation 3(2) has the power to revise the RPO targets for any year for such reasons as deemed appropriate. The discretion to the Hon'ble Commission is wide without any fetters over exercise of such discretion.
18. Further, in terms of 2nd Proviso to Regulation 6(2), the Hon'ble Commission without relaxing the targets is also entitled to carry forward the deficit achievement to the subsequent years. This is also not restricted in any manner

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and such carry forward could be for any reason as the Hon'ble Commission deems appropriate.

19. It is further submitted that independent of the above two provisions, in terms of Regulation 7, the Hon'ble Commission has the inherent powers to pass such orders in the interest of justice as deemed appropriate. Such powers are provided for in a wide manner.
20. It is submitted that as detailed hereinabove, PSPCL has acted in a bona fide manner, taken substantial efforts to procure renewable power, has also complied with the previous carry forward of RPO obligation and the shortfall created is only due to factors beyond the control of PSPCL. A substantial capacity has been tied up through PPAs, though the actual availability of electricity has turned out to be much less for the year 2015-16 resulting in the shortfall.
21. In the circumstances mentioned above, PSPCL has preferred the present petition before the Hon'ble Commission seeking carry forward of the deficit RPO of the year 2016-17 to the subsequent year.

PRAYER

22. In the facts and circumstances, it is respectfully prayed that the Hon'ble Commission may be pleased to:
 - (a) Carry forward the "Net Shortfall in RPO targets for FY 2016-17 of 2354.33 MUs Non -Solar of the RPO compliance shortfall to FY 2017-18";
 - (b) The surplus of 171.37 MUs of Solar may be adjusted against Non-solar shortfall.
 - (c) Pass such further orders as the Hon'ble Commission may deem just in the facts of the present case;

DA/ As above

Chief Engineer/ARR&TR
PSPCL, Patiala.