PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SCO NO. 220-221, SECTOR 34-A, CHANDIGARH

Petition No. 52 of 2012
Date of Order: 30.11.2012

In the matter of : Petition under Section 61 and 86 of the Electricity Act, 2003 for directing the PSPCL for purchase of15 MW (revised to 20 MW) surplus power from Petitioner's Co-Generation Power Plant, which is accredited and registered under Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 (REC Regulations 2010) on 'Pooled Cost of Purchase' (APPC) as determined by the Commission in the Tariff Order 2012-13 or determine tariff based on generic tariff allowed by the Commission for supply of Power on long term basis from such plants in order to promote co-generation and generation of electricity from renewable source of energy as envisaged under the Electricity Act, 2003, National Electricity Policy, Tariff Policy and the NRSE Policy of GOP.

AND

In the matter of: Rana Sugars Limited having its Registered Office at SCO No. 49-50, Madhya Marg, Sector 8-C, Chandigarh through Shri Gursharan Singh Dhiman, President.

Versus

1. State of Punjab through its Secretary, Govt. of Punjab, Department of Science, Technology, Environment and Non-Conventional Energy, Civil Secretariat, Chandigarh.
2. Punjab State Power Corporation Limited (PSPCL) through its Chairman cum Managing Director, The Mall, Patiala.
3. Punjab Energy Development Agency (PEDA) through its Director, Plot No.1 & 2, Sector 33-D, Chandigarh.

Present: Smt. Romila Dubey, Chairperson
Shri Virinder Singh, Member
Shri Gurinderjit Singh, Member

ORDER

This petition has been filed by Rana Sugars Limited having its Registered Office at SCO No. 49-50, Madhya Marg, Sector 8-C, Chandigarh,

under sections 61 and 86 of the Electricity Act, 2003(Act) for directing the PSPCL for purchase of 15MW (revised to 20 MW) surplus power from petitioner's co-generation power plant, which is accredited and registered under Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 (REC Regulations 2010) on 'Pooled Cost of Purchase' (APPC) as determined by the Commission in the Tariff Order for PSPCL FY 2012-13 or determine tariff based on generic tariff allowed by the Commission for supply of power on long term basis from such plants in order to promote co-generation and generation of electricity from renewable sources of energy as envisaged under the Electricity Act, 2003, National Electricity Policy, Tariff Policy and the NRSE Policy of Government of Punjab (GOP).

2. Petitioner's Submission:

(i) The petitioner has submitted that Rana Sugars Limited was incorporated as a public limited company under the Companies Act, 1956 on 30.07.1991. The Company set up a sugar mill and power generation facility in co-generation mode at village Buttar Seviyan, Tehsil Baba Bakala, District Amritsar, Punjab. Presently, the sugar mill has a crushing capacity of 5000 MT per day of sugar cane and set up power plants of different capacities as and when the mill was upgraded. The power plant of 34 MW capacity was set up in the year 2007 and has been running as captive cum merchant power plant and selling power on short term basis through traders in open market/power exchange and bilaterally to PSPCL.

(ii) The petitioner has further stated that the power plant of 34 MW capacity is being run in co-generation mode. The bagasse being used for running the boiler of the power plant is supplied by the sugar mill. Out of the 34 MW power generated, 11MW is used in the sugar mill as captive consumption and balance 23 MW is being sold to PSPCL and power exchange/traders. The power plant is connected to 66 kV Sub Station of PSPCL at Sathiala for feeding the power in the grid. The project uses fuels available locally such as bagasse during the operation of the sugar mill and

thereafter a mixture of bagasse and rice husk/ other biomass fuels are used as per availability in local market also considering viability of their prevailing prices and keeping in view the sale rate of power.

(iii) The petitioner has submitted that its project was the first in Punjab to obtain accreditation in 2011 from State Agency (PEDA) and registration from Central Agency (NLDC) under the REC Regulations 2010 for a period of 5 years i.e. up to the year 2016. During 2008-09 from July to March, power was sold to PSEB (now PSPCL) under open access. During 2009-10 from August to February, power was sold to traders under open access. In 2010-11 power was sold to traders and also offered to PSPCL through traders. During the last year i.e. 2011-12, PSPCL purchased power from the petitioner's project at APPC with rebate of Re.0.05 per unit.

(iv) The petitioner has submitted that the open access charges which were earlier 28.4 paise per unit in 2011-12 have now been increased to 143 paise per unit. Further GOP has imposed Electricity Duty on open market sale. In addition, with revision of UI rates by CERC / PSERC, variations from schedule, which cannot be avoided, have also become very punitive. The rate of rice husk has also increased considerably in the recent past due to introduction and grant of generic tariff to renewable energy power projects set up/coming up in the State. In addition, merchant renewable energy power plants have to compete in the market with coal and hydel projects. As a result, sale of power in the open market from such power plants, even with revenue from sale of RECs, has become totally unviable.

(v) The petitioner has further submitted that the price of bagasse and rice husk is increasing continuously over the years. Presently the market rate of bagasse is Rs. 2200 per MT and rice husk is around Rs. 4500 per MT. Also, the cost of short term working capital loan has also increased in last few years due to hardening of interest rates. The O&M charges have risen due to abnormal inflation and shortage of labour in Punjab. The per unit variable cost with bagasse as fuel is much more than the rate of Rs 4.04 per unit being offered by PSPCL for purchase of power from the petitioner's renewable energy power plant. Additionally, the petitioner has to incur O & M costs,

working capital cost and also earn ROE from the sale of power generated from the project. The variable cost of power on currently prevailing prices of bagasse works out to Rs 4.81 per unit.

(vi) The petitioner has also submitted that as per sections 61 and 86 (1) (e) of the Act, the Commission while determining tariffs is to be guided by the need to promote co-generation and generation of electricity from renewable sources of energy. Under para 6.4 of the Tariff Policy, preferential tariffs are to be determined by the Commission for renewable energy projects. Also, para 5.2.20 of the National Electricity Policy requires adoption of suitable promotional measures for encouraging higher generation from renewable energy sources. The National Action Plan on Climate Change (NAPCC) had set the target of purchase of 5% renewable energy for FY 2009-10 with 1% increase annually for the next 10 years.

(vii) The petitioner has submitted that it approached PSPCL for purchase of power, at APPC under the REC mechanism, vide its letters dated 31.08.2012(mentioned as 28.08.2012) and 01.10.2012. However, PSPCL vide its memo. no. 1413 dated 04.10.2012, conveyed that it cannot buy power from the petitioner's renewable energy power plant at APPC as it is unable to achieve the renewable purchase obligation(RPO) specified by the Commission, instead PSPCL would purchase this power at renewable energy rates so as to achieve the RPO targets.

(viii) The petitioner has submitted that PSPCL has purchased power from renewable energy projects from Himachal Pradesh at the generic tariff determined by the Commission for small hydro projects which after accounting for the T&D losses costed Rs. 5.50 per kWh.

(ix) The petitioner has prayed as under:

a) Direct the PSPCL to purchase power from the petitioner's project at APPC; or
b) Fix remunerative tariff for the sale of power from petitioner's renewable energy project to PSPCL, which does not have any PPA at present.

c) Pass any such order as may be deemed just and proper in facts and circumstances of the case.

(x) The petitioner has filed additional submission dated 31.10.2012 stating that it has offered 20 MW surplus power to PSPCL on long term basis at the tariff to be determined by the Commission, based on generic tariff and considering the date of commissioning of the project, which is 05.12.2007. A copy of its consent letter RSL/RM/2012-2013 dated 30.10.2012 in response to PSPCL's aforementioned letter dated 04.10.2012 has been enclosed. In the said submission, the petitioner has also prayed for determination of tariff from its project for supply of power on long term basis, based on the generic tariff as determined by the Commission for such plants and to advise PSPCL for signing long term PPA with the petitioner.

3. <u>Reply of PSPCL (Respondent No. 2)</u>

(i) Punjab State Power Corporation Ltd (Respondent no. 2) filed its reply on 16.11.2012. PSPCL has submitted that in view of the additional submissions and prayer by the petitioner for tariff determination for supply of power on long term basis based on the generic tariff, the original petition becomes infructuous and is not maintainable. PSPCL has further submitted that the Commission, on 19.09.2012, has already decided a petition (No. 44 of 2011) titled as A.B. Grain Spirits Pvt. Ltd. and after considering all the legal provisions decided the per unit price of renewable energy @ Rs. 4.93 as Net Applicable tariff after adjusting the accelerated depreciation benefit from the applicable tariff of Rs. 5.02 (fixed cost: Rs. 1.60 per kWh; variable cost: Rs. 3.42 per kWh). PSPCL has stated that it is not bound to purchase power from renewable energy power projects at APPC/Pooled Cost of Purchase fixed by the Commission, which is the maximum average purchase rate. PSPCL has submitted that vide letter dated 04.10.2012, it was conveyed to the petitioner that it cannot buy the power at APPC from the petitioner's project. Instead, as PSPCL is facing shortfall in meeting its renewable purchase obligation (RPO), it is ready to purchase this power at the tariff/rates for renewable energy projects. PSPCL has averred that its stand is as per the spirit of the Electricity Act, 2003, the Regulations framed by the Commission and other notification(s) of Central and State Government as well as Central Electricity

Regulatory Commission. PSPCL has further submitted that power from NRSE projects being purchased at competitive rates from Himachal Pradesh is for short term only and would contribute to meet the deficit in the RPO targets thereby avoiding purchase of renewable energy certificates.

(ii) In reply to the additional submission dated 31.10.2012 of the petitioner, PSPCL has submitted that it is ready to enter into long term power purchase agreement (PPA) for 20 years at the tariff rates determined by the Commission and the Commission may pass appropriate Order as per law.

4. Reply of Government of Punjab & PEDA (Respondent No. 1 & 3)

Punjab Energy Development Agency (Respondent No. 3) and the State Government (Respondent No. 1) have filed joint reply dated 19.11.2012. PEDA has submitted that the petitioner signed memorandum of understanding (MOU) on 02.05.2007 for setting up 34 MW co-generation project at its sugar mill at Buttar Seviyan, District Amritsar. However, the Implementation Agreement (IA) was not signed. PEDA has submitted that the petitioner requested for accreditation for 23 MW surplus capacity of its project under REC Regulations which was granted on 28.11.2011 and the same was registered with NLDC on 07.12.2011, valid for a period of 5 years from the date of issue unless revoked earlier. PEDA while taking cognizance of the petitioner's prayer for tariff determination by the Commission for supply of surplus power upto 23 MW to PSPCL through long term PPA has requested the Commission to take appropriate decision in this matter.

5. Findings & Decision of the Commission:

(i) The Commission notes that the petition was admitted vide Order dated 30.10.2012 and respondents were directed to file replies by 16.11.2012. Meanwhile the petitioner filed additional submission dated 31.10.2012. The respondents PSPCL and PEDA/Govt. of Punjab filed their replies on 16.11.2012 and 20.11.2012 respectively. The Commission after hearing the parties on 20.11.2012 closed further hearings in this petition and reserved the final Order vide its Order dated 21.11.2012. In the same Order, the Commission directed the petitioner to submit in writing that the petitioner is

ready to sign the Implementation Agreement (IA) with PEDA as per the NRSE Policy 2006 and also that the petitioner is ready to sign a short term agreement with PSPCL to sell power at the rate of Rs.4.04 per unit till the final decision of the Commission in this petition. The Commission notes that the petitioner has filed a letter No.RSL/RM/PRES/2012-13 dated 20.11.2012 accordingly. The Commission also directed PSPCL to sign short term agreement with the petitioner @ Rs. 4.04 per unit for purchase of power w.e.f. 25.11.2012 till the final disposal of this petition. Further, PEDA and the petitioner shall sign the IA as per their submissions and intimate the Commission after signing the same. The petitioner, vide its letter dated 26.11.2012, has informed the Commission that it has deposited the fee to PEDA for signing of the IA.

(ii) The Commission notes that the petitioner has prayed for determination of tariff in respect of its non-fossil fuel based co-generation project for supply of 20 MW power to PSPCL on long term basis at tariff to be determined by the Commission. The Commission also notes that PSPCL is unable to comply with the RPO due to non availability of sufficient quantum of power from renewable energy power projects, which may lead to buying RECs making it an uneconomical proposition. Purchase of power from renewable energy projects at APPC by PSPCL, as per REC Regulations, 2010, is not accounted for towards RPO compliance. However, the same power purchased at renewable energy tariff would be counted towards RPO compliance. The Commission notes that for the said reason, PSPCL is ready to purchase the offered quantum of power from the said co-generation project of the petitioner at tariff applicable for renewable energy projects. The Commission further notes that PEDA as well as Government of Punjab have also not expressed any reservations to the proposal of the petitioner as well as acceptance of the same by PSPCL.

(iii) The Commission is also mindful of several provisions in the Act, the Tariff Policy and the National Electricity Policy framed under section 3 of the Act, which enjoins the Central Govt. to prepare the National Electricity Policy and the Tariff Policy with a view to developing the power system based on optimal utilization of resources such as coal, natural gas, nuclear substances,

hydro and renewable sources of energy. Sections 61 and 86 (1) (e) of the Act further mandate that the Commission while determining tariffs would be guided by the need to promote co-generation and generation of electricity from renewable sources of energy. Furthermore, para 6.4 of the Tariff Policy provides for preferential tariffs to be determined by the Commission for renewable energy projects while para 5.2.20 of the National Electricity Policy requires adoption of suitable promotional measures for encouraging higher generation from renewable energy sources.

(iv) After going through the petition, additional submissions, replies and the submission made during the hearings, the Commission, hereinafter, gives its findings with regard to the prayer of the petitioner for determination of tariff for supply of 20 MW surplus power on long term basis from its said non-fossil fuel based co-generation project.

(v) The Commission notes that power export from the said 34 MW generating plant of the petitioner was started on 05.12.2007 (FY 2007-08) as per PSPCL letter 6558 dated 27.09.2011 submitted by the petitioner.

(vi) The Commission determines the tariff for the renewable energy projects in accordance with its Regulations. For the purpose, the Commission in its Order dated 19.07.2012 adopted the Central Electricity Regulatory Commission (Terms & Conditions for tariff determination from Renewable Energy Sources) Regulations, 2012 with State specific modifications in respect of non-fossil fuel based co-generation projects (RE Regulations, 2012). The Commission has already determined the generic tariff for various RE technologies for the year 2012-13 in its Order dated 19.07.2012 in accordance with the aforementioned RE Regulations. As per these Regulations, the tariff for renewable energy technologies/projects where biomass fuel mix is to be used, is to be determined in two parts i.e. levellised fixed cost and variable cost.

(vii) For working out the levellised fixed cost of the petitioner's project for the year of applicability of tariff i.e. FY 2012-13, the Commission intends to determine the capital cost of petitioner's co-generation project commissioned in 2007-08 for that year by applying the capital cost indexation mechanism as

specified in the RE Regulations, 2012, on the normative capital cost of Rs.420 lac per MW for non-fossil fuel based co-generation projects for the year 2012-13 and then depreciate it to the applicable year of tariff i.e. 2012-13. Accordingly, the normative capital cost for the petitioner's project for the year 2007-08 comes to Rs.356.735 lac per MW which, after depreciation at the standard book depreciation rate of 5.28% per annum upto 2012-13, works out to Rs.271.99 lac per MW for the year 2012-13. With this capital cost and using normative parameters for FY 2012-13, the levellised fixed cost works out to Rs.1.53 per kWh. The variable cost for FY 2012-13 for the petitioner's project would be the same as allowed to other projects to be set up in the State as per Commission's Order dated 19.07.2012 i.e. Rs. 3.42 per kWh.

(viii) Accordingly, the tariff payable for the petitioner's project is depicted in the following table:

Tariff for the year 2012-13				
Levellised Fixed Cost (Rs/kWh)	Variable Cost (FY 2012-13) (Rs/kWh)	Applicable Tariff Rate (Rs/kWh)	Benefit of Accelerated Depreciation, if availed (Rs/kWh)	Net Applicable Tariff Rate upon adjusting for Accelerated Depreciation benefit (3 - 4) (Rs/kWh)
1	2	3	4	5
1.53	3.42	4.95	0.08	4.87

(ix) The above tariff shall be payable to the petitioner prospectively with effect from the date of this Order or signing of PPA with PSPCL whichever is later. The levellised fixed component will remain the same during the tariff period. However, the variable component will change each year based on whether the petitioner opts for fuel price indexation or normative escalation factor of 5% as per RE Regulations 2012. The tariff period shall be for a minimum thirteen (13) years from the date of application of tariff determined in this Order.

(x) Further, in accordance with Regulation 22 of the RE Regulations, 2012, any incentive or subsidy offered by the Central or State Governments if availed by the generating company for the renewable energy power plant(s), is to be deducted while determining tariff. Although per unit reduction on account of accelerated depreciation benefit has been quantified, reduction in tariff on account of other incentives and subsidies has not been specified. In the circumstances, the Commission directs that PSPCL will work out subsidy/incentive, if any, availed by the petitioner as per the scheme(s) of the Ministry of New and Renewable Energy, Govt. of India and reduce the tariff to that extent for the period of 12 years. Also tariff adjustment will be made on account of subsidy/grant/incentive of the Govt of Punjab, if any, availed by the petitioner. Further, sharing of CDM benefits will be as per the RE Regulations 2012.

The petition is disposed of accordingly.

Sd/-	**Sd/-**	**Sd/-**
(Gurinderjit Singh) **Member**	**(Virinder Singh)** **Member**	**(Romila Dubey)** **Chairperson**

Chandigarh
Dated: 30.11.2012