

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

Petition No. 57 of 2023
Date of Order: 30.01.2024

Petition under section 86(1)(b) and (e) of the Electricity Act, 2003, as read with the applicable provisions under the Punjab State Electricity Regulatory Commission (Power Purchase and Procurement Process of Licensees) Regulations, 2012; Regulation 46 of the Punjab State Electricity Regulatory Commission (Conduct of Business) Regulations, 2005 for approval of power procurement from 1MW Power Plant based on patented technology in the field of flywheel of Kamma Gear Flywheel Pvt. Ltd., in terms of the Power Purchase Agreement dated 24.07.2023.

In the matter of: Punjab State Power Corporation Limited (PSPCL),
The Mall, Patiala, Punjab 147001.

..... Petitioner

Versus

Kamma Gear Flywheel Pvt. Ltd., Plot No. 18, Jagadish
Nagar Colony, Rasoolpura, Secunderabad, Telengana,
India – 500003

...Respondent

Commission: Sh. Viswajeet Khanna, Chairperson
Sh. Paramjeet Singh, Member

Petitioner: Ms. Poorva Saigal, Advocate

Respondent: Sh. C.S. Bhaskar

ORDER

1. PSPCL has filed the instant petition for approval of the power procurement of 1MW Power from M/s KAMMA Gear Flywheel Pvt. Ltd.

It has been submitted that:

1.1 PSPCL is a distribution licensee under the provisions of the Electricity Act, 2003 and has been procuring electricity from various sources, including, from renewable sources of energy to meet the power supply requirements in the State of Punjab. And, M/s Kamma Gear Flywheel Pvt. Ltd. (**Respondent**) is a Company incorporated under the provisions of the Companies Act, 1956 and holds a patent for a flywheel based technology for power production.

1.2 On 20.01.2023, PSPCL received a proposal from the Respondent for supply of power @ Rs. 6.00/kWh (including taxes) from its 1 MW Power Plant to be set-up based on its patented flywheel power production technology. It was stated that till now the flywheel has been used as an energy storage device, but the same flywheel concept can be used for power generation in the future. The Respondent also submitted its DPR along with the Patent and Trademark Certificates issued in its favour. In the DPR, under the concept, it has been submitted that the flywheel coupled with the gear train and using pulse-based technology can develop more electrical power than the input motor. After discussions, on 07.03.2023, the Respondent confirmed to supply electricity @ Rs. 3.00/kWh.

1.3 On 27.03.2023, PSPCL consented to the purchase of power from the Respondent's patented power plant to be established near the 66KV Substation Nathuwala, PSPCL Division Baghapurana. The PPA for same was executed on 24.07.2023 between the parties for supply of 1MW power at a fixed tariff of Rs. 3.00/kWh without any escalation for a period of 25 years subject to the approval of PSERC. The Generating company shall be commissioning the Generating Facility within 12 months from the Date of signing of PPA or any extension allowed by PSPCL. After a 5 year period, the Generating Company is ready to negotiate/reduce the tariff rate to Rs. 1.00/kWh, if PSPCL agrees to fresh power purchase to the order of a minimum of 20 MW.

1.4 The benefits of the contracted capacity of 1 MW power shall accrue towards the Renewable Purchase Obligations of PSPCL in terms of the Punjab State Electricity Regulatory Commission (Renewable Purchase obligations and its compliance) Regulations, 2022. Also, the tariff of Rs. 3/kWh is economical and commensurate with the prevalent market rate. Moreover, as stated hereinabove, after a 5 year period, the Respondent is ready to negotiate the tariff rate and reduce it down to Rs. 1.00/kWh on a condition that PSPCL agrees to place a fresh power purchase order of a minimum of 20 MW.

1.5 Prayers made by the Petitioner are:

- (i) Admit the instant petition;
- (ii) Declare that the procurement of power from the Respondent's 1MW Power Plant on the terms & conditions contained in the PPA dated 24.07.2023; and

(iii) Pass such further order or orders as the Commission may deem just and proper in the circumstances of the case.

2. After considering the averments made by the petitioner, the petition was admitted vide the Commission's Order dated 27.10.2023 with directions that, "Notice be issued to the respondent to file its reply to the petition within two weeks with a copy to PSPCL, PSPCL may file its rejoinder thereto, if any, within one week thereafter. In compliance to the same, the respondent, vide its e-mail dated 28.10.2023, submitted its consent/willingness to the PPA and the Petition submitted by PSPCL before the Commission. Subsequently, an affidavit dated 23.01.2024 was also filed reiterating its consent/willingness.
3. The petition was taken up for hearing today i.e. on 24.01.2024. Ld. Counsel for PSPCL while reiterating its written submissions requested for an early consideration and approval of the proposal. The representative appearing for the respondent also supported PSPCL's prayer. After hearing the parties the Commission allowed the Prayer in the Petition as per the following detailed Order:

4. Analysis/Observation and Decision of the Commission:

The Commission has examined the submissions made by the parties. The Petition is for seeking approval for PSPCL's power procurement arrangement from the respondent's 1MW power plant to be set-up in Punjab based on its patented flywheel pulse-based technology for power production under Section 86(1) of the Electricity Act read with PSERC (Power Purchase and Procurement Process of Licensee) Regulations 2012. The Commission refers to the relevant provisions of the Electricity Act and PSERC Regulations framed there under for

regulating the Power Purchase & Procurement process of the Licensee, which mandates the Commission to examine the same on the criteria of its 'Necessity, Conformity with the Government Policies' and 'Reasonability of Cost'.

It has been submitted that the proposed power procurement shall benefit PSPCL in fulfilling its RPO targets in terms of the PSERC (Renewable Purchase obligations and its compliance) Regulations, 2022. Further, as per the DPR annexed with the petition, the respondent generating company is a start-up company recognised by the Department for Promotion of Industry and Internal Trade and having a patent for the proposed Flywheel Power Generation and Storage technology. Though defying the established principles that energy can neither be created nor destroyed, the concept of the flywheel generating higher electrical output than the input motor appears innovative and interesting. The Commission is of the view that the possibility of new technologies with feasibility to generate power at the distributed sources need to be explored and promoted.

Though the tariff of Rs. 3.00/kWh for which approval is sought is slightly higher when compared with the prevalent solar tariffs, it is however lower than the variable cost of PSPCL's own thermal plants with which its energy output can be swapped. Also, if the experiment succeeds, after 5 years the parties are willing to negotiate/reduce the tariff rate down to Rs. 1.00/kWh for supply of 20 MW and above.

Considering the above, the Commission allows PSPCL's proposal for procurement of power from the proposed 1MW power plant of M/s Kamma Gear Flywheel Pvt. Ltd. at a fixed tariff of Rs. 3.00/kWh,

without any escalation, for a period of 25 years. The Commission also wishes to point out that it does not approve the detailed terms and conditions of the PPA, which are to be decided by the contracting parties with mutual consent.

The petition is disposed of accordingly.

Sd/-
(Paramjeet Singh)
Member

Sd/-
(Viswajeet Khanna)
Chairperson

Chandigarh
Dated: 30.01.2024

