BEFORE THE PUNJAB STATE ELECTRICITY REGULATORY COMMISSION, CHANDIGARH

IN THE MATTER OF **PETITION NO. of 2021**

Petition for clarification regarding applicability of PIU tariff to Electroplating Industries and some other type of industries under regulation 69, 70, 71 & 72 of chapter XIII of the conduct of Business Regulations 2005

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AND

IN THE MATTER OF
PUNJAB STATE POWER CORPORATION LIMITED,
THE MALL, PATIALA, PUNJAB.

MOST RESPECTFULLY SHOWETH

1. That this petition is being filed by the petitioner i.e. Punjab State Power Corporation Limited (PSPCL) for seeking clarification regarding applicability of PIU tariff to Electroplating Industries and some other type of industries under regulation 69, 70, 71 & 72 of chapter XIII of the conduct of Business Regulations 2005.

2. **Background**

   As per the Tariff Order/Instructions issued by Hon'ble PSERC from time to time, the following types of load have been declared as Power Intensive Units (PIUs):-

   1. Induction Furnace.
   2. Chloro-alkaline units.
   3. Billet heaters having total installed/connected kVA rating more than 100 kVA. Where rating in kVA is not available, rated load in kW shall be converted into kVA considering unity power factor.
   4. Surface hardening machines.
   5. **Electrolytes process industries.**
   6. Electric Bell Furnaces for annealing.
   7. Arc furnaces (including Electro-Slag Refining /Re-melting).

During routine checking by PSPCL, it has been observed that some consumers have installed PIUs in due course of time without intimation to PSPCL and they have been booked under UUE. In larger public interest, PSPCL vide its memo no. 861-66 dated 09.12.2020 **(Annexure-A)** reiterated the instructions issued by commission in its order dated 26.06.2019 against Petition No. 49 of 2017 regarding regularization of PIU load. Public notices in this regard were also issued in leading newspapers to intimate that if any LS consumer covered under general industry is found using PIU load in his premises, then it will be treated as a case of Unauthorized Use of Electricity (UUE) as per provisions of Regulation 36 of Supply Code 2014 and Section 126 of Electricity Act 2003, for which penalty on account of UUE will be charged accordingly.

However, representations from various industries and industrial associations were received (placed at **Annexure-B)** wherein it is mentioned that some of their units are involved in operation of electroplating work and accordingly it was requested to clarify regarding applicability of PIU tariff to Electroplating Industries. Further, it has also been pointed out that Hon'ble Commission has declared Electrolytes process industries as PIU industries through Tariff Order. However, there is nowhere mentioned about Electroplating Industries to be covered under PIU tariff. Due to this, there is confusion among field offices of PSPCL and industries on the issue of applicability of PIU tariff to Electroplating Industry. Similarly, The Pathankot Road Manufacturers Association, Jalandhar vide their representation to CE/DS, North Zone, PSPCL, Jalandhar **(Annexure-C)** has also enclosed a list of doubtful process/machines which require clarification regarding applicability of PIU tariff. Enclosed list includes Hardening Furnaces, Tempering Furnaces, Metal Gathering Machines, Welding Machines/Butt Welding Machines and Power coating equipments. The Pathankot Road Manufacturers Association, Jalandhar has requested to carry out inspection/study of doubtful process/machines so that it may be clarified that whether such process/machines are covered under PIU industries or not.

3. **Opinion of commercial wing of PSPCL on applicability of PIU tariff to Electroplating Industries**

The difference between electrolysis and electroplating is tabulated as under:

Electrolysis	Electroplating
• Electrolysis is defined as a process of decomposing ionic compounds into their elements by passing a direct electric current through the compound in a fluid form. The cations are reduced at cathode and anions are oxidized at the anode. • The word "lysis" means to separate or break, so in terms, electrolysis would mean "breakdown via electricity. • For example, acidified or salt-containing water can be decomposed by passing electric current to their original elements hydrogen and oxygen.	• Electroplating is basically a process of plating a metal onto the other mostly to prevent corrosion of metal or for decorative purposes. • **Electroplating is an application of electrolysis process** which uses an electric current to reduce dissolved metal cations to develop a lean coherent metal coating on the electrode. Electroplating is often applied in the electrical oxidation of anions on a solid substrate like the formation of silver chloride on silver wire to form silver chloride electrodes.
Applications of Electrolysis process: ➢ Determination of Equivalent Eight of Substances ➢ Electrolysis of Molten Salts ➢ Electrorefining – Purification of Metals ➢ **Electroplating** ➢ Electro-forming ➢ Manufacture of Pure Gases ➢ Manufacture of compounds like sodium hydroxide, sodium carbonate, potassium chlorate etc.	Applications of Electroplating: ➢ Electroplating is used to protect various metals from corrosion by depositing coating of another metal. for example coating of iron with metals like zinc, lead, chromium, nickel improves the corrosion resistance of iron ➢ It is also used for making ornaments etc.. Gold and silver coating on cheaper metals is used for making ornaments. ➢ Sometimes it allows the manufacturers to make the product with economical materials and then coat the metals for improving its strength.

In view of above facts, it seems that electroplating industries uses electrolysis process for their operation. Accordingly, electroplating industries should be covered under PIU tariff.

4. Other process/type of industry which require clarification regarding applicability of PIU tariff:

In addition to electroplating industries, following type of industries also requires clarification regarding applicability of PIU tariff:

i. Hardening Furnaces.
ii. Tempering Furnaces.
iii. Metal Gathering Machines.
iv. Welding Machines/Butt Welding Machines.
v. Power coating equipments.

5. Reason for filing petition before Hon'ble PSERC

Hon'ble PSERC in its order dated 26.06.2019 against Petition No. 49 of 2017 has directed PSPCL as under:-

"PSPCL is also directed not to charge any industry as PIU which is not included in the list of declared PIU Industries. However, as the technology is changing fast, there may be some new/existing Large Supply Industrial connection applicants/consumers whose process/technology may be similar to PIU but with different name than that declared as PIU by the Commission. Licensee may file petition with the Commission to include such processes under PIU category. Such industries shall be charged general tariff with the undertaking from the applicant that it will be charged applicable tariff from the date of release of connection/ extension in load as per the decision of the Commission in this regard."

In view of above instructions, PSPCL cannot charge any industry under PIU tariff which is not included in the list of declared PIU Industries. Since, there is no mention regarding Electroplating Industries to be covered under PIU tariff in Tariff order issued by Hon'ble PSERC, therefore matter was referred

to Hon'ble PSERC vide this office memo no. 905/06/DD/SR-62 dated 31/12/2020 **(Annexure-D).**

However, Hon'ble PSERC vide their memo no. PSERC/Tariff/T-240/250-51 dated 19.01.2021 **(Annexure-E)** has stated that the mentioning of "Electrolytes process industries" under PIU category in Scheduled of Tariff annexed with the annual Tariff Orders is not a new phenomenon. The said industry continues to be covered in PIU since PSEB era. It is strange that Commercial section of PSPCL is unaware about the same. PSPCL may file a petition in case any clarifications/amendment to the Schedule of tariff is required.

In reference to the above mentioned memo no. PSERC/Tariff/T-240/250-51 dated 19.01.2021 received from Hon'ble PSERC, a detailed proposal for seeking clarification regarding applicability of PIU tariff to Electroplating Industries was submitted to Hon'ble PSERC vide this office memo no. 494/DD/SR-62 dated 21.06.2021 **(Annexure-F)** vide which it was pointed out that there is no ambiguity/confusion regarding applicability of PIU tariff to Electrolytic process industries. Electrolytic process industries have already been included under PIU tariff by Hon'ble PSERC. The para 82.3.2 of erstwhile PSEB's Electricity Supply Regulations also includes Electrolytic process industries under PIU tariff. However, the ambiguity is whether electroplating industries are covered under electrolytic process industries or not. This issue has been raised by field offices of PSPCL & concerned industries that whether electroplating industries are covered under Power Intensive Units (PIU) as there is no mention of electroplating industries in "schedules of tariff" issued by Hon'ble Commission vide its Tariff Order for FY 2021-22.

However, in reference to the above mentioned detailed proposal submitted by PSPCL, Hon'ble PSERC, vide their office memo no. 1622/PSERC/ Tariff/T-241 dated 01.07.2021 **(Annexure-G),** has stated that PSPCL may file a petition in case any clarification is required in this regard

5. <u>Prayer:</u>

On the basis of facts & reasons brought out above, Hon'ble Commission is requested to clarify whether PIU tariff is applicable to following industries:

i. *Electroplating industries.*
ii. *Hardening Furnaces.*
iii. *Tempering Furnaces.*
iv. *Metal Gathering Machines.*
v. *Welding Machines/Butt Welding Machines.*
vi. *Power coating equipments.*

In case of applicability of PIU tariff on above mentioned industries, what will be the date of applicability of PIU tariff on these industries.

DA/Annexure-A to G.

Chief Engineer/ARR&TR,
PSPCL, Patiala.