



# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

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**Registrar**

No. NEPRA/DG (Lic)/LAG-523/ 10602-11

July 16, 2025

**Chief Executive Officer**

Kundian Hydel Power (Private) Limited  
C/O Pakistan Atomic Energy Commission Foundation  
Adjacent to NORI Hospital, Hanna Road, G-8/3, Islamabad

Subject: **Grant of Generation Licence No. SGC/179/2025**  
**Licence Application No. LAG-523**  
**Kundian Hydel Power (Private) Limited (KHPPL)**

*Reference: Your letter No. & dated nil (received on 15.06.2022)*

Enclosed please find herewith Determination of the Authority alongwith dissent note of Mr. Rafique Ahmed Shaikh, Member (Technical, NEPRA) in the matter of application of Kundian Hydel Power (Private) Limited (KHPPL) for the grant of generation licence along with Generation Licence No. SGC/179/2025 annexed to this determination granted by the National Electric Power Regulatory Authority (NEPRA) to KHPPL for its 5.0MW Gross hydel power generation facility located at Chashma, District Mianwali in the province of Punjab, pursuant to Section-14B of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997/Amendment Act 2018.

2. Please quote above mentioned Generation Licence No. for future correspondence.

Enclosure: As Above

  
(Wasim Anwar Bhinder)

**Copy to:**

1. Secretary, Power Division, Ministry of Energy, 'A' Block, Pak Secretariat, Islamabad
2. Secretary, Energy Department, Government of Punjab, EFU House, 8th Floor, 6-D Jail Road, Lahore
3. Managing Director, National Grid Company of Pakistan Ltd, 414 WAPDA House, Lahore
4. Chief Executive Officer, CPPA(G), 73 West, Shaheen Plaza, A.K. Fazl-ul-Haq Rd, Blue Area, Islamabad
5. Managing Director, Private Power & Infrastructure Board (PPIB), Ground & 2nd Floors, Emigration Tower, Plot No. 10, Mauve Area, Sector G-8/1, Islamabad
6. Managing Director, Punjab Power Development Company (PPDB), 2a Zafar Ali Rd, Gulberg V, Lahore
7. Chief Executive Officer, Independent System and Market Operator of Pakistan (Guarantee) Limited (ISMO), Faiz Ahmed Faiz Road, H-8/1, Islamabad
8. CEO, Faisalabad Electric Supply Company, West Canal Road, Abdullahpur, Faisalabad
9. Director General, Environmental Protection Department, Government of the Punjab, National Hockey Stadium, Ferozpur Road, Lahore

**National Electric Power Regulatory Authority**  
**(NEPRA)**

**Determination of the Authority**  
**in the Matter of Application of Kundian Hydel Power (Private)**  
**Limited for the Grant of Generation Licence**

July 16<sup>th</sup>, 2025  
**Case No. LAG-523**

**(A). Filing of Application**

(i). Kundian Hydel Power (Private) Limited (KHPPL) submitted an application on June 15, 2022 for the grant of generation licence in terms of Section-14B of Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act") read with the relevant provisions of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 (the "Licensing Regulations").

(ii). The Registrar examined the submitted application and observed some discrepancies in the same in terms of the Licensing Regulations and directed KHPPL to submit missing information/documents. KHPPL completed the required information on September 13, 2022 and subsequently, the Registrar registered the application for consideration for the grant of the generation licence as stipulated in the Licensing Regulations. The Registrar published a notice in one (01) (Urdu and one (01) English newspaper on September 27, 2022 to invite comments of general public, interested and affected persons in the matter as stipulated in Regulation-7 of the Licensing Regulations.

(iii). In addition to the above, the Registrar also sent letters on September 27, 2022 to different stakeholders including but not limited to Govt. Ministries, their attached departments, various Authorities/corporations/companies and different representative organizations for soliciting their views and comments for assistance of the Authority in terms of provisions of the Licensing Regulations.





## **(B). Comments of Stakeholders**

(i). In reply to the above, the Authority received comments from six (06) stakeholders. These included Central Power Purchasing Agency (Guarantee) Limited (CPPA-G), Board of Investment (BoI), Private Power & Infrastructure Board (PPIB), Faisalabad Electric Supply Company Limited (FESCO), Punjab Power Development Board (PPDB) and Indus River System Authority (IRSA). The salient points of the comments that the said stakeholders have offered are summarized below:-

- (a). CPPA-G submitted that the KHPPL is wholly owned company of Pakistan Atomic Energy Commission Foundation (PAECF), which intends to sell power to Chashma Nuclear Power Plant (Chashma NPP) as a sole buyer of electricity for its internal operations. The Hydel Power Plant (HPP) will be built on canal for cooling of the nuclear reactor(s). In light of the above arrangement, it seems that Chashma NPP will utilize the generation of KHPPL to reduce its auxiliary consumption and import from NTDC/FESCO, but the scheme is not clear from the application. Therefore, some points are required to be addressed which include: (i). Whether the power from KHPPL will be consumed within the premises of the Chasma NPP; (ii). As per law, whether the modification in the generation licence of Chashma NPP is required for inclusion of the said project in its Complex or otherwise; (iii). KHPPL falls within the service territory of FESCO, therefore, comments of the same may also be sought on the matter;
- (b). BoI remarked that the affordable and smooth supply of energy is the backbone for the industrial growth of the country. The grant of licence to KHPPL is a purely technical matter however, the Authority may proceed further in the matter as per relevant law/rules;
- (c). PPIB commented that the Memorandum of Association and Article of Association allow the company to carry on all or any of the businesses of generating, purchasing, importing, transforming, converting, distributing, supplying electricity, etc. The project will



sell electric power to Chashma NPP for its internal operation and use, as its sole consumer therefore, there is no National Grid involved in power evacuation and transmission. Further, the environmental impact approval and water usage studies for the canal are already part of Chashma NPP, which could be an added advantage in relation to the environmental approvals required for this project. In view of the said, PPIB supported the application of KHPPL for the grant of generation licence;

- (d). FESCO has no reservation on the grant of licence as the Hydel power plant will not be connected to the National Grid and the sole buyer of electricity will be Chashma NPP. However, KHPPL will be required to get electric power supplier licence in terms of Regulation-4 of the NEPRA Licensing (Electric Power Supplier) Regulations, 2022;
- (e). PPDB submitted that development of HPP will reduce dependence on expensive imported fuel for energy generation and also result in clean & green energy. Further, the project will contribute towards achieving the Goal-7 "Affordable and Clean Energy" and Goal-13 "Climate Action to combat climate change and its impacts" of the United Nation Sustainable Development Goals; and
- (f). IRSA stated that the Authority may ask the company to provide copy of the Feasibility Study, and brief of the project as well as apply for No Objection Certificate (NOC) for its project.

(ii). The Authority reviewed the above comments of stakeholders and in view of the observations made, considered it appropriate to seek the perspective of KHPPL. On the comments of CPPA-G, it has been submitted that the PAEC not the Chashma NPP will utilize the electric power generated from the HPP meaning thereby there will be no reduction in its auxiliary consumption. It is important to mention that there are multiple PAEC installations in the vicinity of Chashma NPP which will utilize the said power.





(iii). Further to the above, KHPPL submitted that no modification in the generation licence of Chashma NPP is required as it is a separate entity which will be operating the HPP and it has no impact on the operations of the nuclear power plant. PAEC will purchase power from the generation facility of KHPPL therefore, there will be no involvement of FESCO in the matter. Regarding comments of IRSA, it was stated that the HPP is constructed on an artificial canal and neither affects nor utilizes the potential difference of the Indus River system to generate electricity. The Chashma NPP will first use the canal water for cooling of the reactor thereafter, the extracted water is passed through the connecting canal (for sending the water back to the river), where KHPPL will use it for power generation. Electric pumps are used to maintain the water flow of the canal therefore, the requirement of applying for NOC from IRSA for the project is not applicable.

(iv). The Authority considered the above submission of KHPPL and found the same plausible. In view of the said, the Authority considered it appropriate to proceed further in the matter as stipulated in the the relevant provisions of the NEPRA Act, the NEPRA Licensing (Generation) Rules, 2000 (the "Generation Rules"), the Licensing Regulations, and other applicable documents.

### **(C). Observations/Findings**

(i). The Authority has considered the complete case in detail including the information provided in the application of KHPPL for the grant of generation licence, comments of the stakeholders and the rejoinder in the matter. Further to the said, the Authority has also considered the Feasibility Study of the project, the NEPRA Act, relevant rules & regulations. In this regard, the observations/findings of the Authority are explained in the following paragraphs.

(ii). The Authority has observed that PAECF wholly owns the company/KHPPL with 100% shareholding and was established in 1994 under Charitable Endowments Act 1890. It is involved in the business of sublet of agricultural land, sale of agricultural produce, provision of travel agency services, sale of petroleum products and medicine etc. through various projects for the welfare of serving and retired employees of the PAEC. It has also a undertaken number of projects for the social welfare of local communities through the establishment of schools, hospitals, etc.



(iii). The Authority has noted that the applicant company (i.e. KHPPL) is a private limited company incorporated on August 31, 2020 under Section-16 of the Companies Act, 2017 (XIX of 2017) having Corporate Universal Identification No. 0156782. The registered/business office of the company is located adjacent to NORI Hospital, Hanna Road, Sector G-8/3, Islamabad. According to the Memorandum of Association, the principal line of business of the company, *inter alia*, includes, generating, supplying, distributing, purchasing, importing electricity and performing all other acts which are necessary or incidental to the business of hydel power generation, supply & transmission of electric power. According to the submitted information, the total outlay of the project will be approximately Rs. 583,848,077/- which will be financed through own resources of PAECF.

(iv). According to the Feasibility Study, the HPP will be built on the C3&4 canal which utilizes water from the Chashma-Jhelum (CJ) link canal for cooling of nuclear reactors which will be discharged to the River Indus. The said plant is located within the premises of Chashma NPP at Tehsil Piplan, District Mianwali in the province of Punjab. KHPPL has submitted the current application for the grant of generation licence for a 5.0 MW Run of River/Canal based HPP for supplying power to various installations in the premises. The main components of the Hydel power plant includes: (a). Headrace canal; (b). Trash racks; (c). Intake Structure; (d). Spillway structure; (e). Powerhouse; and (f). Tailrace canal.

(v). The total installed capacity of the HPP is 5.0 MW consisting of two (02) Vertical axis Kaplan turbines (2 x 2.5 MW). The said capacity of the project has been optimized keeping in view the design discharge of 24.8 m<sup>3</sup>/s. The Kundian HPP is a low head Run of River based project with mean annual energy of approximately 10131.94 MWh at a plant factor of 56%. According to the submitted information, KHPPL plans to supply power to installations as a Bulk Power Consumer (BPC) within the premises of Chashma NPP for which dispersal will be made at 11 KV through cables located on the private property owned by the BPC without involving any public or third party.

(vi). In this regard, it is pertinent to mention that BPC is a defined term as stipulated in Section-2 (ii) of the NEPRA Act. According to the said, a BPC is a consumer which purchases or receives electric power, at one premises, in an amount





of one megawatt or more or in such other amount and voltage level and with such other characteristics as the Authority may specify and the Authority may specify different amounts and voltage levels and with such other characteristics for different areas. Accordingly, the Authority allows the installations of PAEC to be BPC of KHPPL as explained above.

(vii). Further to the above, Section-2(v) of the NEPRA Act defines the term "Distribution" wherein the ownership, operation, management and control of distribution facilities located on private property and used solely to move or deliver electric power to the person owning, operating, managing and controlling those facilities or to tenants thereof is not included in the definition of "distribution". As explained above, the facilities to be used for delivery of electric power to above BPC are located on private property (without involving any public property or any third party) and will be owned, operated, managed and controlled by the BPC therefore, the supply of electric power to the BPC from the generation facility of KHPPL does not constitute a distribution activity under the NEPRA Act, and the company/KHPPL will not require a distribution licence. Further, according to the proviso to Section-21 of the NEPRA Act, the Authority is empowered to allow a generation company to sell electric power to a BPC located in the service territory of a distribution company. In view of the said, the Authority allows the KHPPL to sell electricity to BPC subject to obtaining Electric Power Supply Licence under Section-23E of the NEPRA Act.

(viii). The Authority has observed that the proposed project, for which generation licence is being sought, is based on RE source and does not cause pollution as in the case of conventional power plants. However, the operation of the generation facility/HPP may cause soil pollution, water pollution and noise pollution during construction and operation. In this regard, KHPPL carried out the social and environmental impact assessment which reveals that the HPP has no or minimal social and environmental impact. It has also confirmed that it will comply with the relevant environmental standards of concerned environment protection agency. In view of the said, the Authority considers that KHPPL is made obligatory to comply with the relevant environmental standards for which a separate article will be included in the generation licence for the proposed generation facility/HPP. Further, the plant is located within the premises of Chashma NPP so therefore, there will be no issue of any relocation and resettlement.





(ix). In terms of Section-14B and subject to sub-section-(5) of the NEPRA Act, no person shall, except under authority of a licence that the Authority may issue, construct, own, or operate a generation facility. Further, an application for the grant of a licence for a generation facility is required to specify: (a). the type of facility for which the licence is applied; (b). the location of the generation facility; and (c). the expected life of the generation facility. Further, in terms of Rule-3 of the Generation Rules, the Authority may grant a generation licence to any person to engage in the generation business for which it is required to submit the location, size, technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the generation facilities of the licensee.

(x). As explained in the preceding paragraphs, the Authority considers that KHPPL has provided all the above details relating to its HPP, complying with the requirements of the NEPRA Act and the Generation Rules. The Authority considers that proposed project will result in optimum utilization of the renewable energy source i.e. water resulting in pollution free electric power therefore, the said generation facility/HPP not only fulfils the requirements for environmental consideration but also that of the least cost option criteria stipulated in the Generation Rules. The Authority is of the view that there is no need for any further deliberation on the issue or holding any public hearing fulfilling the requirement of the Generation Rules. In view of the said, the Authority considers that KHPPL has a case for the grant of the generation licence for the HPP.

(xi). Regarding the term of the Generation Licence, Rule-5(1) of the Generation Rules stipulates that the term of a generation licence is to be consistent with the maximum expected useful life of the units comprised in a generating facility, except where an applicant consents to a shorter term. In this regard, the Authority clarifies that the generation facility/HPP was commissioned in 2023 and its expected useful life was estimated to be thirty (30) years from its Commercial Operation Date (COD). Accordingly, the Authority for the purpose of the licence sets the term as thirty (30) years from its COD (i.e., July 01, 2023), subject the Section 14B of the NEPRA Act.

(xii). Regarding the tariff, the Authority hereby clarifies that under Section-7(3)(a) of the NEPRA Act, determining tariff, rate and charges etc. is its sole





prerogative. However, the Authority has observed that tariff between KHPPL and its BPC, does not affect any other consumer or third party. Therefore, for the purpose of tariff, the Authority directs KHPPL and its BPC to agree on a bilateral agreement and accordingly, KHPPL will be allowed to charge the agreed tariff subsequent to the grant of the generation licence. In this regard, the Authority has included a separate article in the generation licence pertaining to tariff.

**(xiii).** About compliance with the environmental standards, KHPPL has confirmed that it will comply with the required standards during the term of the generation licence. In view of the importance of the issue, the Authority has decided to include a separate article in the generation licence along with other terms and conditions making it obligatory for KHPPL to comply with relevant environmental standards at all times.

**(xiv).** The Authority has considered the comments of stakeholders and observed that certain observations have been raised which include: (a) whether the hydel power plant will reduce the auxiliary consumption of Chashma NPP or otherwise; and (b). any modification in the generation licence of Chashma NPP will be required or not; and (c). the company is required to apply to IRSA for NOC for its project. In this regard, the Authority considers that the company has already confirmed that power generation from the HPP will neither affect operations of the Chashma NPP nor it will be used to reduce auxiliary consumption of the said facility.

**(xv).** Further, the Authority hereby clarifies that no modification in the generation licence of PAEC is required as KHPPL, which is separate entity, will supply to installations within Chashma Complex and it has no nexus with nuclear power plants. About requirement of IRSA to apply for NOC for hydel project, the Authority considers that the generation facility of KHPPL is a Run of River/Canal based HPP using the cooling water from C-3 & C-4 projects for generation of electric power without affecting the flow of water which will discharge back into the river. The Authority is of the view that the said arrangement is an added advantage for effective utilization of resources therefore, NOC from IRSA may not be required in this case. In light of the said explanation, the comments of stakeholders stand addressed and settled.



**(D). Approval of the Authority**

(i). In view of the above, the Authority considers that the application of KHPPL for the grant of Generation Licence for the HPP, is compliant with the provisions of the NEPRA Act, relevant rules and regulations. Accordingly, the Authority hereby approves the grant of generation licence to KHPPL on the terms and conditions set out in the generation licence annexed to this Determination.

(ii). The grant of generation licence will be subject to the provisions contained in the NEPRA Act, relevant rules, regulations framed thereunder and other applicable documents. The grant/approval is restricted to the generation of electric power from the generation facility of KHPPL only and not for sale/supply of electric power to the BPC. In order to supply electric power to BPC, the Authority further directs KHPPL to apply for the Electric Power Supplier Licence under Section-23E of the NEPRA Act within a period of ninety (90) days of this Determination.

**Authority**

Engr. Maqsood Anwar Khan  
(Member)

*[Signature]*

My dissent is attached.

*[Signature]*

Rafique Ahmed Shaikh  
(Member)

Amina Ahmed  
(Member)

*[Signature]*

*[Signature]*

Waseem Mukhtar  
(Chairman)






### **Dissenting Note of Member (Technical):**

The case before the Authority is the grant/approval of a generation licence (5.0 MW) to Kundian Hydel Power (Private) Limited (KHPPL). As mentioned in the under process generation licence, the plant has already achieved Commercial Operation Date (COD) on July 1, 2023. It is further mentioned that the electricity generated by KHPPL will be delivered/supplied to an installation located within the complex of the Pakistan Atomic Energy Commission (PAEC) as a Bulk Power Consumer (BPC).

Moreover, the Determination explicitly states that *"The grant of generation licence will be subject to the provisions contained in NEPRA Act, relevant rules, regulations framed thereunder and other applicable documents. The grant/approval is restricted to the generation of electric power from generation facility of KHPPL only and not for sale//supply of electric power to BPC. In order to supply electric power to BPC, the Authority further directs KHPPL to apply for the Electric Power Supplier License under Section 23E of the NEPRA Act within a period of ninety (90) days of this Determination"*

Although the matter under consideration is the grant of a generation licence, it is evident that the intended business activity—specifically, the sale of generated electricity by KHPPL to BPC—can only proceed upon the acquisition of a valid Supply Licence. However, the current regulatory framework lacks sufficient provisions for processing such Supply Licence applications. Consequently, under the prevailing regulations, KHPPL is unable to obtain the required supply licence, thereby rendering the granted generation licence ineffective in serving its commercial purpose.

According to available information, more than 27 supply licence applications are currently pending before NEPRA, with several remaining undecided for over two years. In view of this situation, I am of the considered opinion that, unless and until a comprehensive regulatory framework, specifically designed to address behind-the-meter schemes and dual supply arrangements, is developed to facilitate the effective evaluation and processing of such applications, generation licences or concurrences that cannot be operationalized to support legitimate business operations should not be granted.

  
Rafique Ahmed Shaikh



**National Electric Power Regulatory Authority  
(NEPRA)  
Islamabad – Pakistan**

**GENERATION LICENCE**

**No. SGC/179/2025**

In exercise of the powers conferred upon under Section-14B of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997/Amendment Act, 2018, the Authority hereby grants a Generation Licence to:

**KUNDIAN HYDEL POWER (PRIVATE) LIMITED**

Incorporated Under Section-16  
of the Companies Act, 2017 (XIX of 2017) Having Corporate Universal  
Identification No. 0156782, dated August 31, 2020

**for its Hydel Based Generation Facility/Hydel Power Plant**  
**Located at Chashma, District Mianwali**  
**in the Province of Punjab**

(Total Installed Capacity: 5.0 MW Gross)

to engage in generation business subject to and in accordance with the Articles of this Licence.

Given under my hand this on 16<sup>th</sup> day of July Two Thousand  
& Twenty Five and expires on 30<sup>th</sup> day of June Two Thousand  
& Fifty Three.

  
Registrar







## **Article-1** **Definitions**

### **1.1 In this licence**

- (a). "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (Act No. XL of 1997), as amended from time to time;
- (b). "Applicable Documents" means the rules and regulations framed by the Authority under the Act, any documents or instruments issued or determinations made by the Authority under any of the foregoing or pursuant to the exercise of its powers under the Act, the Grid Code, the applicable Distribution Code, the Market Commercial Code if any, or the documents or instruments made by the Licensee pursuant to its generation licence, in each case of a binding nature applicable to the Licensee or, where applicable, to its affiliates and to which the Licensee or any of its affiliates may be subject;
- (c). "Applicable Law" means the Act and all the Applicable Documents;
- (d). "Authority" means the National Electric Power Regulatory Authority constituted under Section-3 of the Act;
- (e). "Bulk Power Consumer (BPC)" means a consumer who purchases or receives electric power, at one premises, in an amount of one (01) megawatt or more or in such other amount and voltage level and with such other characteristics as the Authority may specify and the Authority may specify different amounts and voltage levels and with such other characteristics for different areas;
- (f). "Bus Bar" means a system of conductors in the generation facility/Hydel Power Plant of the Licensee on which the electric



power from the generation facility is collected for supplying to the BPC;

- (g). "Commercial Operations Date (COD)" means the day immediately following the date on which the generation facility/Hydel Power Plant of the Licensee is Commissioned;
- (h). "Commissioned" means the successful completion of commissioning of the generation facility/Hydel Power Plant for continuous operation and despatch to the BPC;
- (i). "Distribution Code" means the distribution code prepared and revised from time to time by the concerned XW-DISCO with necessary approval of the Authority;
- (j). "Generation Rules" means the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000 as amended or replaced from time to time;
- (k). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;
- (l). "Hydel Power Plant" means a generation facility for production of electric power using water as source;
- (m). "Licensee" means **Kundian Hydel Power (Private) Limited** or its successors or permitted assigns;
- (n). "Licensing Regulations" means the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 as amended or replaced from time to time;
- (o). "Market Commercial Code" means the market commercial code prepared and revised from time to time by Market Operator with necessary approval of the Authority;





- (p). "Market Operator" means a person responsible for organization and administration of trade in electricity and payment settlements among generators, licensees and consumers;
- (q). "Net Delivered Energy" means the net electric energy expressed in kWh that is generated by the generation facility/Hydel Power Plant of the Licensee at its outgoing Bus Bar and delivered to the BPC;
- (r). "Power Purchaser" means BPC which will be purchasing electric power from the Licensee, pursuant to a PPA for procurement of electric power;
- (s). Power Purchase Agreement (PPA)" means the power purchase agreement, entered or to be entered into by and between the Power Purchaser and the Licensee, for the purchase and sale of electric power generated by the generation facility/Hydel Power Plant of the Licensee, as may be amended by the parties thereto from time to time;
- (t). "XW-DISCO" means an Ex-WAPDA distribution company engaged in the distribution of electric power.

1.2 The words and expressions used but not defined herein bear the meaning given thereto in the Act or rules and regulations issued under the Act.

## **Article-2** **Applicability of Law**

This licence is issued subject to the provisions of the Applicable Law, as amended or replaced from time to time.



**Article-3**  
**Generation Facilities**

3.1 The location, size (capacity in MW), technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the generation facility/Hydel Power Plant of the Licensee are set out in Schedule-I of this licence.

3.2 The net capacity/Net Delivered Energy of the generation facility/Hydel Power Plant of the Licensee is set out in Schedule-II of this licence.

**Article-4**  
**Term of Licence**

4.1 This licence shall become effective from the date of its issuance and will have a term of thirty (30) years from the COD of the generation facility/Hydel Power Plant, subject to the provisions of Section-14(B) of the Act.

4.2 Unless suspended or revoked earlier, the Licensee may apply for renewal of this licence ninety (90) days prior to the expiry of the above term, as stipulated in the Licensing Regulations.

**Article-5**  
**Licence Fee**

The Licensee shall pay to the Authority the annual licence fee as stipulated in the National Electric Power Regulatory Authority (Fees) Regulation, 2021 as amended or replaced from time to time.

**Article-6**  
**Tariff**

The Licensee shall charge the Power Purchaser such tariff which has been agreed between the Licensee and the Power Purchaser, pursuant to the Power Purchase Agreement.





**Article-7**  
**Competitive Trading Arrangement**

7.1 The Licensee shall participate in such manner as may be directed by the Authority from time to time for development of a Competitive Trading Arrangement.

7.2 The Licensee shall in good faith work towards implementation and operation of the aforesaid Competitive Trading Arrangement in the manner and time period specified by the Authority. Provided that any such participation shall be subject to any contract entered into between the Licensee and another party with the approval of the Authority.

7.3 Any variation or modification in the above-mentioned contracts for allowing the parties thereto to participate wholly or partially in the Competitive Trading Arrangement shall be subject to mutual agreement of the parties thereto and such terms and conditions as may be approved by the Authority.

**Article-8**  
**Maintenance of Records**

The Licensee shall maintain the copies of records and data in standard and electronic form and all such records and data shall, subject to just claims of confidentiality, be accessible by authorized officers of the Authority.

**Article-9**  
**Compliance with Performance Standards**

The Licensee shall comply with the relevant provisions of the National Electric Power Regulatory Authority Performance Standards (Generation) Rules, 2009 as amended or replaced from time to time.

**Article-10**  
**Compliance with Environmental & Safety Standards**

10.1 The generation facility/Hydel Power Plant of the Licensee shall comply with the environmental and safety standards as may be prescribed by the relevant competent authority as amended or replaced from time to time.



**10.2** The Licensee shall provide a certificate on a bi-annual basis, confirming that the operation of its generation facility/Hydel Power Plant is in conformity with required environmental standards as prescribed by the relevant competent authority as amended or replaced from time to time.

**Article-11**  
**Power off take Point and Voltage**

The Licensee shall deliver the electric power to the Power Purchaser at the outgoing Bus Bar of its generation facility/Hydel Power Plant. The Licensee shall be responsible for the up-gradation (step up) of generation voltage up to the required dispersal voltage level.

**Article-12**  
**Provision of Information**

In accordance with provisions of Section-44 of the Act, the Licensee shall be obligated to provide the required information in any form as desired by the Authority without any exception.

**Article-13**  
**Compliance with Applicable Law**

The Licensee shall comply with the provisions of the Applicable Law, guidelines, directions and prohibitory orders of the Authority as issued from time to time.

**Article-14**  
**Corporate Social Responsibility**

The Licensee shall provide the descriptive as well as monetary disclosure of its activities pertaining to Corporate Social Responsibility (CSR) on an annual basis.





## **SCHEDULE-I**

The Location, Size (i.e. Capacity in MW), Type of Technology, Interconnection Arrangements, Technical Limits, Technical/Functional Specifications and other details specific to the Generation Facilities of the Licensee are described in this Schedule.



Generation Licence  
Kundian Hydel Power (Private) Limited  
Hydel Power Plant  
At Chashma, District Mianwali  
in the Province of Punjab

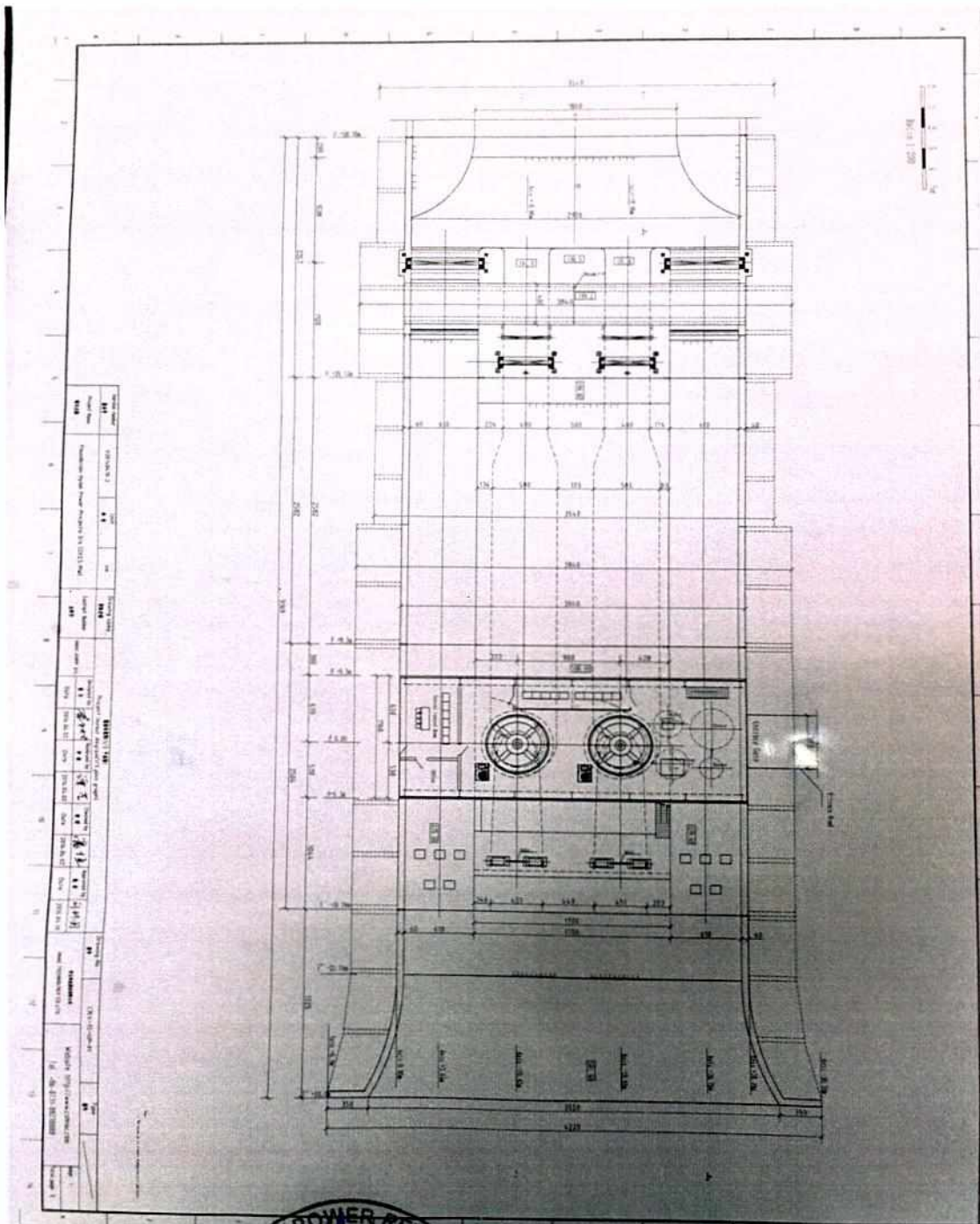
**Location of the  
Generation Facility/Hydel Power Plant of the Licensee  
on Map of Pakistan**





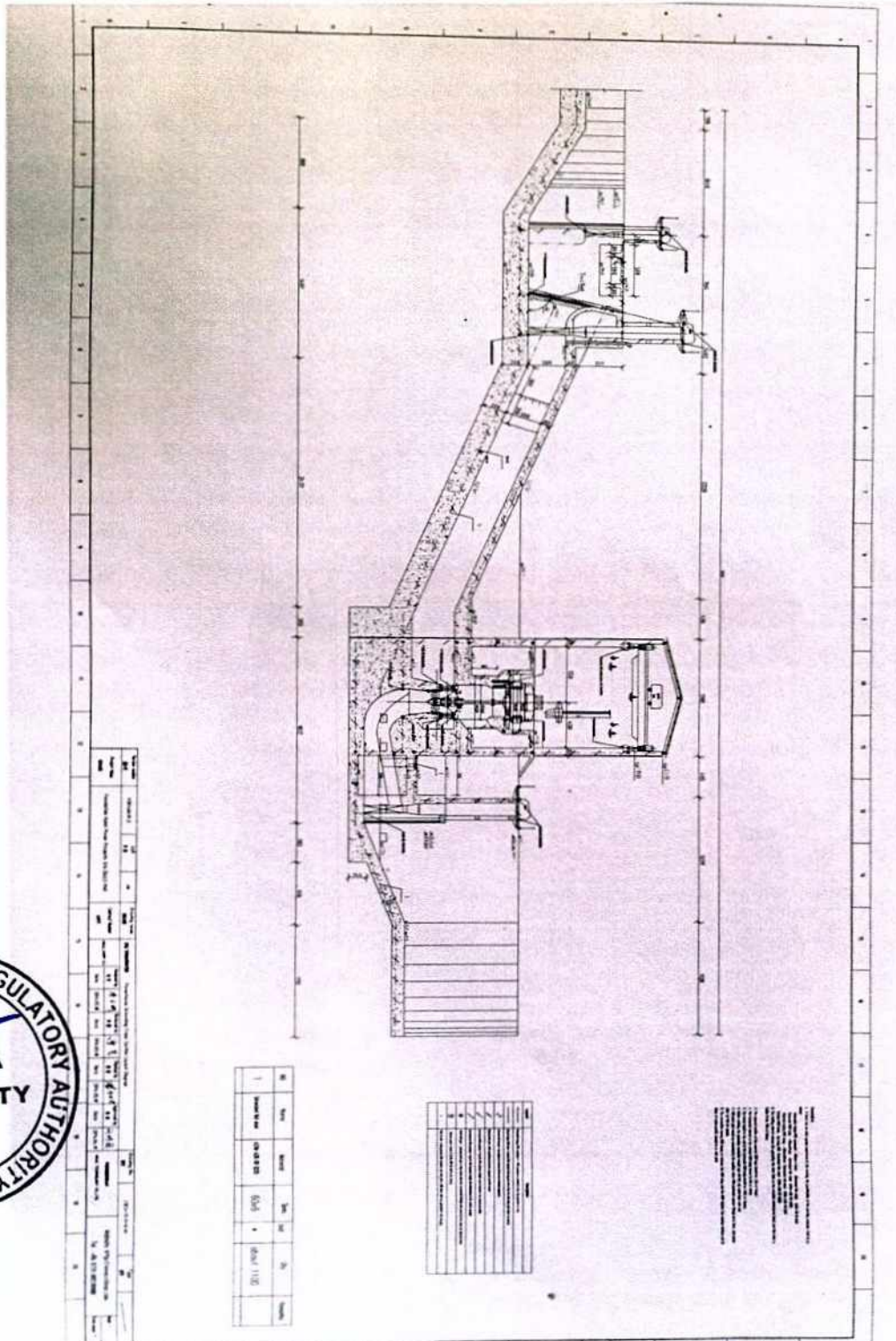
Generation Licence  
Kundian Hydel Power (Private) Limited  
Hydel Power Plant  
At Chashma, District Mianwali  
in the Province of Punjab

**Spillway & Powerhouse Lay-out of the  
Generation Facility/Hydel Power Plant of  
the Licensee**



Generation Licence  
Kundian Hydel Power (Private) Limited  
Hydel Power Plant  
At Chashma, District Mianwali  
in the Province of Punjab

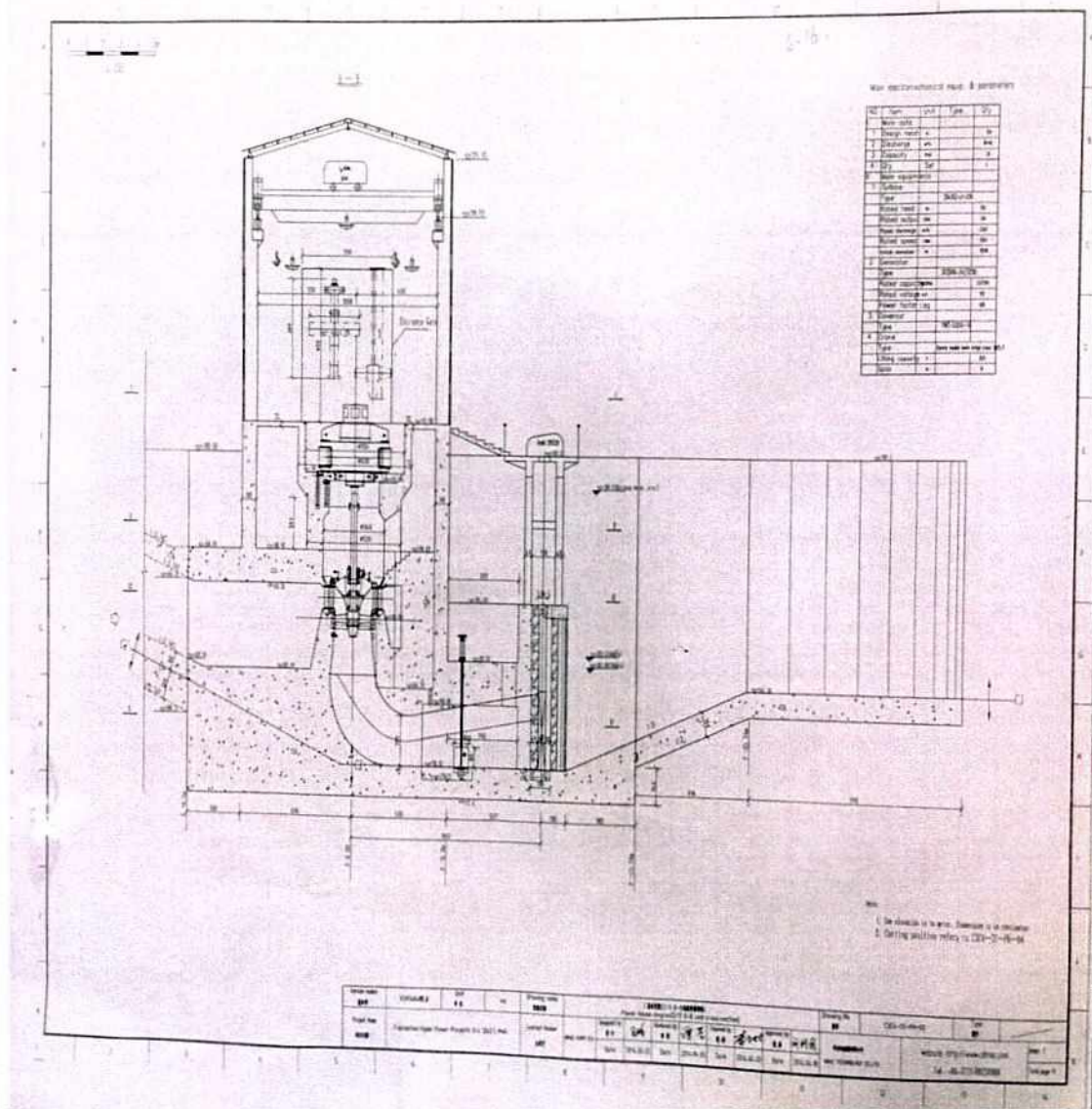
**Lay-out of the**  
**Generation Facility/Hydel Power Plant of**  
**the Licensee**



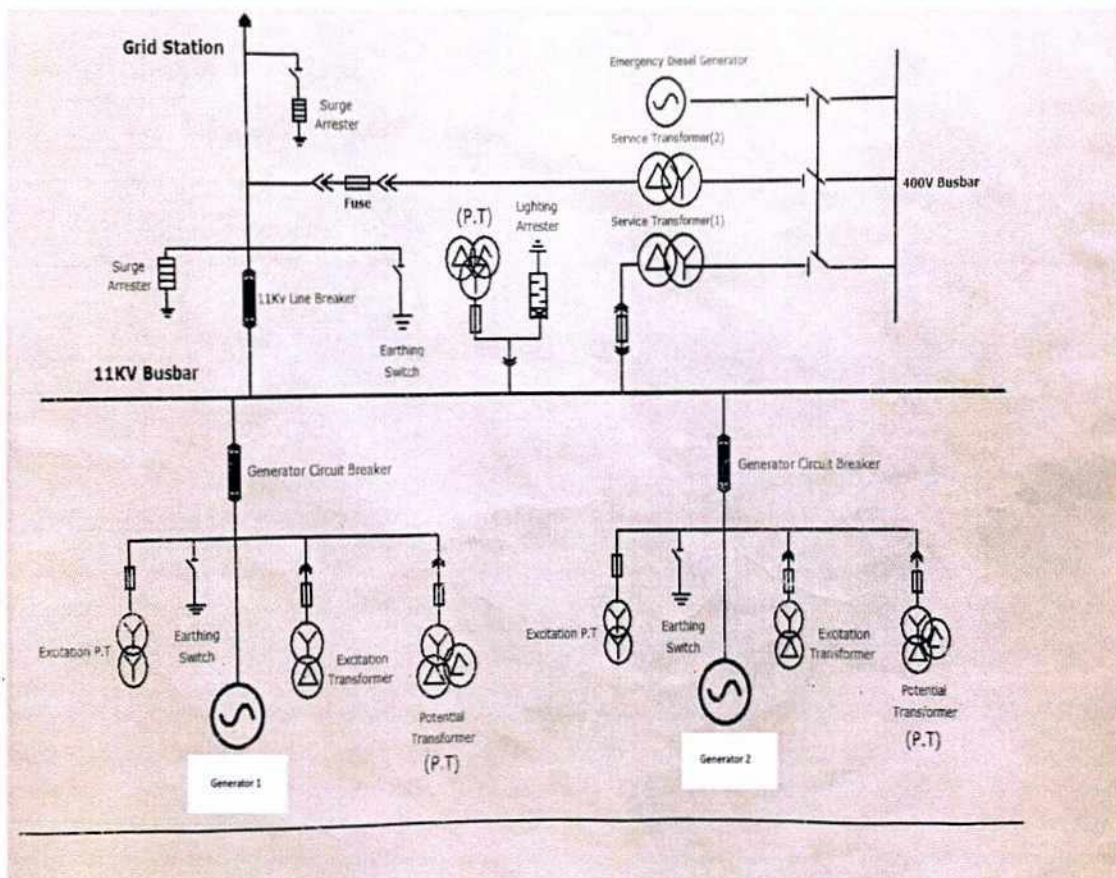


Generation Licence  
Kundian Hydel Power (Private) Limited  
Hydel Power Plant  
At Chashma, District Mianwali  
in the Province of Punjab

**Powerhouse of the  
Generation Facility/Hydel Power Plant of  
the Licensee**



**Single line Diagram (Electrical) of the  
Generation Facility/Hydel Power  
Plant of the Licensee**





**Interconnection Arrangement for  
Dispersal of Electric Energy/Power from the Generation  
Facility/Hydel Power Plant of the Licensee**

The electric power generated from the generation facility/Hydel Power Plant of the Kundian Hydel Power (Private) Limited-KHPPL/the Licensee will be delivered/supplied to installations located within the Complex of Pakistan Atomic Energy Commission (PAEC) as a Bulk Power Consumer (BPC).

(2). The details pertaining to BPC, the supply arrangements and other relating information are provided in the subsequent description of this schedule. Any changes in the said, shall be communicated to the Authority in due course of time.



**Detail of**  
**Generation Facility/Hydel Power Plant**  
**of the Licensee**

**(A). General Information**

(i).	Name of the Licensee/ Company	Kundian Hydel Power (Private) Limited
(ii).	Registered/Business Office of the Licensee/ Company	PAEC Foundation Head Office, near Nori Cancer Hospital, Hanna Road G-8/3, Islamabad
(iii).	Location of the Generation Facility	Chashma, District Mianwali, in the Province of Punjab
(iv).	Type of Generation Facility	Hydel Power Plant

**(B). Configuration etc.**

(i).	Size/ Installed Capacity of the Generation Facility (Gross)	5.0 MW
(ii).	Type of Storage etc.	Run of Canal based Hydel Power Plant
(iii).	Water Source	C3 & C4 Water Discharge Canal
(iv).	Type of Technology	Two (02) Vertical Kaplan Turbines
(v).	Number of Units & Size (MW)	2 x 2.50 MW
(vi).	COD of the Generation Facility	July 01, 2023
(vii).	Expected Life of the Generation Facility from COD	Thirty (30) Years





**(C). Main Design Features**

(i).	Rated Discharge Q	24.8 m <sup>3</sup> /s
(ii).	Rated Head	13.0 meters
(iii).	Plant Factor	56%
(iv).	Plant Availability Factor	88%
(v).	Mean Annual Energy	10131.94 MWh

**(D). Head Race Canal**

(i).	Water level at start of Headrace	198.50 m.a.s.l.
(ii).	Water depth	3.0 meters
(iii).	Bed Width	29.20 meters
(iv).	Bed Slope	0.12%
(v).	Side Slopes	2:1
(vi).	Length	7.0 KM

**(E). Trash Racks**

(i).	No. of Trash Racks	Two (02), One for Each Unit
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(ii).	Width	4.0 meters
(iii).	Height	6.50 meters
(iv).	Inclination	75°

**(F). Stop Logs**

<b>(a).</b>	<b>Intake</b>	
(i).	No. of Stop Logs	One (01) for each Unit
(ii).	Type of Stop Log	Sliding
(iii).	No. of Intakes	Two (02), One for each Unit
(iv).	Width	4.0 meters
(v).	Height of each Stop Log	Approx. 2.0 meters
<b>(b).</b>	<b>Turbine Outlet</b>	
(i).	No. of Stop Logs	One (01) for each Unit
(ii).	Type of Stop Log	Sliding
(iii).	No. of Turbine Outlets	Two (02), One for each Unit
(iv).	Width	4.51 meters





(v).	Height	Approx. 2.0 meters
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**(G). Powerhouse**

(i).	Powerhouse Level	191.69 m.a.s.l.
(ii).	Machine Hall Width	11.60 meters
(iii).	Machine Hall Length	30.0 meters
(iv).	Machine Hall Height	11.70 meters

**(H). Tailrace Canal**

(i).	Tail water level at rated discharge	184 ~ 186 m.a.s.l.
(ii).	Bed Width	51.0 meters
(iii).	Side Slopes	2:1
(iv).	Length	868.23 meters

**(I). Spillway**

(i).	Type	Steel Structure Gate Bounded by Concrete Cantilever Retaining Walls
(ii).	Spillway Starting Level	198.50 m.a.s.l.



(iii).	Spillway Ending Level	195.44 m.a.s.l.
(iv).	Width	6.10 meters

**(J). Electrical & Mechanical Specifications**

<b>(a).</b>	<b>Turbine</b>	
(i).	Type	ZDK160-LH-200
(ii).	Runaway Speed	571 rpm
(iii).	Rated Speed	250 rpm
(iv).	Turbine Runner Diameter	2.0 meters
(v).	No. of Blades	Five (05)
(vi).	Design Flow	24.80 m <sup>3</sup> /s
<b>(b).</b>	<b>Generator</b>	
(i).	Type	SF 2500-24/3250
(ii).	Nominal Speed	250 rpm
(iii).	No. of Units	02
(iv).	Rated Capacity	2941 KVA





(v).	Power Factor	0.85
(vi).	Rated Voltage	11 KV
(vii).	Insulation class	F/F
(viii).	Ambient temperature	45°
(ix).	Connection	Y

**(K). Plant Characteristics**

(i).	Generating Voltage	11 KV
(ii).	Frequency	50 Hz
(iii).	Power Factor	0.85
(iv).	Automatic Generation Control	Yes
(v).	Ramping Rate	N/A
(vi).	Time Required to Synchronise to Grid	N/A



## **SCHEDULE-II**

The Total Installed Gross ISO Capacity (MW), De-Rated Capacity at Reference Site Conditions (MW), Auxiliary Consumption (MW) and the Net Capacity At Reference Site Conditions (MW) of the Generation Facility/Hydro Power Plant of Licensee is given in this Schedule.





## **SCHEDULE-II**

(1).	Total Installed Gross Capacity of the Generation Facility/Hydel Power Plant (2 x 2.50 MW Kaplan Turbines)	5.0 MW
(2).	Total De-Rated Capacity of the Generation Facility/Hydel Power Plant at Mean Site Conditions (2 x 2.50 MW Kaplan Turbines)	5.0 MW
(3).	Auxiliary Consumption of the Generation Facility/Hydel Power Plant (2 x 0.025 MW Kaplan Turbines)	0.05 MW
(4).	Net Capacity of the Generation Facility/Hydel Power Plant at Mean Site Conditions Condition (2 x 2.475 MW Kaplan Turbines)	4.95 MW

**Note**

All the above figures are indicative as provided by the Licensee. The Net Delivered Energy available to Power Purchaser for dispatch will be determined through procedures contained in the Power Purchase Agreement (PPA) or the Applicable Document(s).

