PEDO
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
Government of Khyber Pakhtunkhwa

No. 08/PEDO/DD/E&M/
Dated Peshawar the 30.09.2026

To

Syed Zawar Haider,
Director NEPRA, Islamabad.

Subject: **APPLICATION FILED BY PEDO FOR GRANT OF ELECTRIC POWER SUPPLY LICENCE-10.2 MW JABORI HYDROPOWER COMPLEX**

Dear Sir,

With reference to your office letter No. NEPRA/R/LAS-100/8790 dated 16.09.2026 on the subject cited above, it is submitted that Pakhtunkhwa Energy Development Organization (PEDO), through its legal counsel, M/s Lincoln's Law Chamber, re-submitted the subject application on 10.08.2026 fully compliant with all applicable rules and regulations for grant of Electric Power Supply Licence in respect of the 10.2 MW Jabori Hydropower Project.

2. At the time of re-submission. PEDO had specifically placed on record that the prescribed application fee amounting to Rs. 1,315,827/- had already been earlier deposited with NEPRA in respect of the subject application. PEDO had further submitted that the earlier return of the application, despite PEDO's timely response and compliance with the observations communicated by NEPRA, was unjustified, and the application was accordingly re-submitted without prejudice to PEDO's vested rights and contentions.

3. However, the aforesaid submissions made by PEDO in its re-submission letter have not been given due consideration, and vide the letter under reply, PEDO has now been required to deposit an additional amount of Rs. 70,933/- on account of the difference arising from monthly NCPI indexation of the application fee. NEPRA has stated that the applicable fee for August 2026 was Rs. 1,386,760/-, whereas PEDO had already deposited Rs. 1.315,827/-.

4. PEDO maintains its position that the additional amount has arisen solely on account of the re-submission of an application, due to unwarranted return of the earlier application, in respect of which the prescribed fee had already been duly deposited. This is further acknowledged by the fact that the pay order in respect of the processing fee remained with the NEPRA Authority and is therefore, not liable to any adjustment. Nevertheless, solely in order to avoid any further delay in processing of the subject

application and to ensure smooth and uninterrupted processing of the licensing matter, PEDO shall deposit the additional amount of Rs. 70,933/- under protest and without prejudice to its rights, objections and contentions in respect thereof. Such payment shall not be construed as an admission or acceptance by PEDO of the liability or basis for imposition of the additional amount.

In view of the foregoing, it is respectfully requested that the subject application may kindly be processed expeditiously in accordance with law, without any further delay.
Encl: As above.

(ENGR. SAQIB MUSHTAQ)
Deputy Director (E&M)
PEDO, Peshawar

CC:

1. The Chief Engineer O&M PEDO, Peshawar.
2. The Director O&M PEDO, Peshawar.

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RESPONSE TO NEPRA OBJECTIONS FOR 10.2 MW JABORI HYDEL POWER PLAN

REGULATION #	NEPRA OBJECTIONS	PEDO REPLY/COMMENTS
03(1)	Application Fee	A fresh Cheque No. **64213643** dated 11.02.2026 amounting to **Rs. 1,315,827** was resubmitted to the Registrar, NEPRA on 13.02.2026. A copy of the receiving is also attached for your reference as **Annexure-I**
03(04)(b)	A Prospectus The manner for preparing the prospectus are defined at regulation 02(01)(j) of the Regulations	Prepared in the same manner as desired. Attached as **Annexure-II**
3(4)(c)(i)(a)	Certified Copies of certificate of incorporation	Pakhtunkhwa Energy Development Organization (PEDO) is an autonomous organization working under the Government of Khyber Pakhtunkhwa. PEDO is exempted under Section 24 of the NEPRA Act.
3(4)(c(i)(b)	Certified Copies of certificate of memorandum and article of association	Pakhtunkhwa Energy Development Organization (PEDO) is an autonomous organization working under the

		Government of Khyber Pakhtunkhwa. PEDO is exempted under Section 24 of the NEPRA Act.
3(4)(c)(i)(c)	Certified Copies of annual reports of the company	Certified copies of the annual reports of the company and Combined Financial Statement for the year ended 30.06.2022 are enclosed. Further, regarding non provision of latest financial statement. "It is hereby certified that the Pakhtunkhwa Energy Development Organization (PEDO) currently has available the combined Financial Statements for the year ended June 30, 2022.These statements have already been submitted to the National Electric Power Regulatory Authority(NEPRA) along with the Supplier License application for the 10.2 MW Jabori Hydropower Complex Mansehra, and may be considered the latest available financial statements. The financial statements for the years ended 2023,2024 and 2025

		will be submitted to NEPRA once they become available.
3(4)(c)(ii)	The last annual return of the Company submitted in compliance of section 130 of the Companies Act or in case of an applicant to whom section 130 of the company act doesn't apply, a return comprising of all such information and particulars as required by the specified form under section 130 of the company act, as the case may be.	Combined Financial Statement for the year ended 30.06.2021 has been attached as **Annexure-III**. The latest financial statement if available with PEDO Finance/Account may be provided.
3(4)(c)(iii)	The authorized, issued, subscribed and paid up share capital of the applicant.	This provision does not apply to PEDO, being a government/public sector entity.
3(4)(c)(iv)	The shareholding pattern of the applicant including list of shareholders holding 5% or more shares, number of shares held by each of them and percentage shares of the total paid-up capital	This provision does not apply to PEDO, being a government/public sector entity.
3(4)(d)(i)	Evidence of cash balances held in reserve by the applicant, along with bank certificates	PEDO, being a government/public sector entity, maintains multiple bank accounts in different banks, mainly with Bank of Khyber. All these bank accounts are operated in accordance with the prescribed

		government mechanisms and financial procedures. Account maintenance certificate is attached as **Annexure-IV**.
3(4)(d)(ii)	Details of charges of encumbrances attached to the applicant's assets, if any as required	This provision does not apply to PEDO, being a government/public sector entity.
3(4)(d)(iv)	Expression of interest to provide credit or financing along with sources and details thereof	This provision does not apply to PEDO, being a government/public sector entity. Further, PEDO has applied for the supplier license and there is no debt involved.
3(4)(d)(v)	Documents describing the net worth and the equity and debt ratios of the applicant, as on date of the audited balance sheet accompanying the application.	The details are covered in the combined financial statement provided above.
3(4)(d)(vi)	A reasonably detailed profile of the applicant and applicant senior management, technical and professional staff.	In compliance with the requirements of Schedule-II, Rule (3) of the Minimum Resource Requirements notified by NEPRA, the detailed profiles of the Chief Executive Officer (CEO) PEDO, Member Hydel PEDO, and Member Finance PEDO are attached herewith as **Annexure-V**
3(4)(d)(vii)	Employment record of the engineering and technical staff proposed to be employed	Recruitment in PEDO will be carried out in accordance with the approved organogram. Hiring is based on organizational needs and

		is conducted on a need basis. Therefore, recruitment depends on project requirements and the overall workload of the organization.
3(4)(d)(viii)	Profile of sub-contractor, if any, along with the expression of interest of such sub-contractors	Pakhtunkhwa Energy Development Organization (PEDO) awards works exclusively through EPC-based contracts and BOQ contracts. PEDO does not directly engage or appoint subcontractors; any subcontracting arrangements are managed solely by the primary contractor in accordance with the contract conditions.
3(4)(d)(ix)	Verifiable references in respect of the experience of the applicant and its proposed sub-contractors	Not Applicable
3(e)	Technical and financial proposal in reasonable detail for the operation, maintenance, planning & development of the facility or system in respect of which the license is being sought	PEDO has submitted that the 10.2 MW Jabori Hydel Power Station is operating under a Self-Operation and Maintenance (Self O&M) model. The plant is being operated and maintained indigenously by PEDO, utilizing local technical expertise and resources. Furthermore, the handing over of the transmission line assets is

		under process through business, transfer agreement, therefore, these assets will be maintained by Khyber Pakhtunkhwa Transmission and Grid Company Limited (KPTGCL).
3(f)	Feasibility Study PEDO is required to submit the feasibility study for the power supply business.	Supply and Demand Assessment Report of Jabori HPP is attached as **Annexure-VI**
3(h)	A dully authorized statement stating whether the applicant has been refused grant of license under the act and, if so, the particulars of the refused application, including the date of making the application and decision on the application	**Not Applicable** No application for the grant of a supplier license has previously been refused in respect of the 10.2 MW Jabori Hydel Power Station. **Annexure-VII**
3(6)	Authorization from the Board resolution/Power of attorney · PEDO has attached Power of Attorney in respect of Lincoln Law Chamber, however it has not submitted Authorization in respect of Engr.Saqib Mushtaq Resident Engineer Jabori HPP, who signed the Affidavits. Further PEDO is also required to submit BOD authorization in respect of CEO PEDO.	Authorization in respect of the Resident Engineer, Jabori HPP, is attached as **Annexure-VIII**.

SCHEDULE III (REGULATION 3(4)(A)(D)

1	Relevant Feeder Maps. Number of consumers and Expected Load	PEDO has submitted that "The 10.2 MW Jabori Hydel Power Station is connected to the national grid through the 132 KV Battal Grid Station. The common delivery point(CDP) is located within the switchyard. Fourteen (14) bulk power consumers have expressed interest in obtaining power supply; however, PEDO may not be able to accommodate all interested consumers. The 132KV transmission line layout connecting Jabori to Battal along with the Single Line Diagram is placed at **Annex-IX**
2	Consumer class/Category, sub category on the basis of sanction load and voltage level	The proposed consumer classes have already been identified on page # 33 of the Supply Assessment Report of Jabori HPS, as noted above under Regulation 3(f).
3	Tariff category of consumer classes to be served	The tariff and load details of the identified or

		interested BPCs have been incorporated on page # 19-22 of the Supply and Demand Assessment Report of Jabori HPS. Further, PEDO is seeking a Competitive Supplier License under the CTBCM framework, while bilateral contracts with the respective BPCs will be executed at a later stage.
4	Demand and consumption pattern on different time periods	PEDO may not be able to accommodate all the Bulk Power Consumers mentioned in the Demand and Supply Assessment report. However, PEDO intends to shift entire load of the plant to Bulk Power Consumers(BPC's). The individual consumer load will be finalized at a later stage. As per the signed Power Acquisition Contract(PAC) with HAZECO PEDO reserves the right to suspend or resume the supply of electricity upon issuance of a written notice, in

		accordance with the terms and condition of the contract.
5	Procurement Plan for meeting expected loads(including own generation and/or long term and short term PPA's as the case may be	As per the Business plan of PEDO, an industrial zone is planned to be established near Battal Grid Station in 2028.The power load is expected to be consumed by the Bulk Power Consumers (BPC's), for whom the bidding and selection process is currently underway. Jabori Hydropower Station will remain sole source of power generation for this arrangement **Annex-X**
6	12 Month projections on expected load, number of consumers and expected sale of units for each consumer category	PEDO has submitted that "the Bulk Power Consumers (BPCs) have not yet been finalized; however, the expected average monthly load is approximately 07–08 MW"
7	05 years Investment plan indicating schemes/model/frame work for undertaking supply of electric power(including framework for providing non-discriminatory services and	05 years investment plan of PEDO is attached as **Annexure-XI.**

	acquisition/sale of assets in relevant service territories)	
8	Training and Development procedures and manuals	The relevant PEDO training regulations are attached herewith as **Annexure-XII.**
9	Consumer Service Manual	Attached as **Annexure-XIII**
10(i)	Proposed Service Territory	The proposed service territory has already been reflected in the Supply Assessment Report of Jabori HPS as noted above under Regulation 3(f). PEDO intends to supply electricity to a new industrial zone proposed near the Battal Grid Station. The designated service area falls under the jurisdiction of Hazara Electric Supply Company (HAZECO). Coordination with HAZECO will be undertaken to ensure proper grid integration, accurate metering, and compliance with all regulatory requirements for industrial electricity supply.

10(ii)	Billing and Collection Procedures(Including provision for remote monitoring)	Attached as **Annexure-XIV**
10(iii)	Ability to access consumer monitoring systems and other services/equipment	PEDO will comply this in due course of time at later stage. The consumer energy meter will be remotely accessible by PEDO. Through this access, PEDO will be able to monitor and analyze various parameters of the consumer's electricity usage. The key features available to PEDO will be load profiling, Real time monitoring of voltage level, current power factor etc. Billing and Energy data, event detection etc.
10(iv)	Emergency provision and protocols	Included in Consumer Service Manual provided above at **serial # 09.**
10(v)	Basis of common services for commercial and residential consumers and their allocation thereof	Basis of common services for proposed consumer classes have already been identified in the Supply Assessment Report as noted above under regulation 3(f)

INFORMATION/DOCUMENTS REQUIRED UNDER ELIGIBILITY CRITERIA (ELECTRIC POWER SUPPLY LICENSES) RULES,2023 (THE "SUPPLY ELIGIBILITY CRITERIA RULES")

Rule	Information/Documents required	PEDO Reply/ Comments
03(a)	Certificate of incorporation with SECP **Note:** As per provision-II of rule 03(a) of the rules, a generation company as an applicant for the supply license shall be registered with the SECP exclusively for its generation as well as supply of electric power business and such case shall maintain separate account for its each business	This provision does not apply to PEDO, being a government/public sector entity.
03(b)	Minimum solvency requirement provided in schedule-I of the rules(Copy of schedule is attached)	Based on the latest available independent audited financial statements of PEDO, as certified by the external auditors, the net worth of PEDO is **PKR.90 Billion.** Accordingly, PEDO maintains a positive net worth and fulfills the minimum solvency requirements, as prescribed under the applicable rules, regulations and tender/qualification criteria, subject to the auditor certification and the auditor

		financial statement for the relevant financial year.
03(c)	Strategic business plan for the three year duly certified by CEO or CFO or company secretary, demonstrating its capability to undertake electric power supply business	Certified PEDO Business plan is attached as **Annexure-XV**
03(d)	Minimum human resources requirement as provided in schedule-II to meet all of its service level commitments. (copy of schedule-II is attached)	MOU between WAPDA and PEDO is attached as **Annexure XVI**
03(f)	Information regarding ability to ensure prompt and effective coordination with the system operation, market operator and relevant distribution licensees to comply with provisions of grid code, distribution code, commercial code and other relevant legal instruments as applicable	PEDO is a public sector organization and is already in coordination with the Independent System and Market Operator, and DISCO's such as Hazara Electric Supply Company (HAZECO). Furthermore, PEDO has been granted generation licenses by NEPRA for all of its hydel stations and is strictly complying with the applicable grid codes.
3(g)	Information regarding ability to discharge following service obligation;	
	A. Quality of electric power supply service by;	PEDO is responsible for supplying electricity in accordance with the rules

		and guidelines established by the National Electric Power Regulatory Authority (NEPRA). It coordinates its operations with the Independent System and Market Operator (ISMO), which manages the electricity system and market operations to ensure reliable and fair electricity distribution.
	i. Having automated system of software tools for billing and collection	PEDO will comply this at later stage in due course of time. It may be noted that PEDO has already implemented an automated system of software tools for billing and collection and is currently extending the same system to its other operational hydropower stations, such as the 81 MW Malakand-III HPC, 18 MW Pehur HPC, and 36.6 MW Daral Khawar HPC.
	ii.Having information exchange system for communication and transaction with the system	PEDO, as a public sector organization, already has an established and appropriate power

	operation , market operator and relevant distribution licensees , and other relevant entities	exchange mechanism with the Independent System and Market Operator (ISMO), the Central Power Purchasing Agency - Guaranteed (CPPA-G), and the relevant distribution companies (DISCOs), including Hazara Electric Supply Company. This exchange system ensures: ● Proper scheduling and dispatch of generated power ● Transparent metering and settlement mechanisms ● Compliance with national grid and regulatory requirements ● Efficient coordination between generation, transmission, and distribution entities.

	iii. Complying with the performance standards and any codes specified by the authority for provision of electric power services, particularly, effective and timely billing and collection of charges, customer support service and resolution of consumer complaints	PEDO, as a public sector organization, has established proper mechanisms to ensure compliance with all applicable standards, codes, and regulatory requirements as specified by NEPRA, RCC, CPPA-G, NGCP, the concerned DISCOs, and other relevant federal and governmental entities.
	iv. Ensuring timely dissemination of reporting requirements	PEDO promptly shares and distributes information, making sure it is reported to the relevant departments in an organized manner.
	v. Maintaining the complete and accurate records and data in respect of all aspects of electric power supply business. all such records and data shall, unless provided otherwise under the law , be maintained for a period of five years after the creation such records or data	PEDO, as a Power Seller, has been maintaining complete and accurate records of all its power supply business activities. These records have been properly preserved for more than five (05) years and are shared with the relevant entities on a time-to-time

		and need basis, as required.
	B. Transparency of transaction by ;	
	i. Ensuring compliance with the accounting standards and uniform system of accounts as specified by the authority and in addition to that ensure compliance with international financial reporting standards (IFRS) as applicable in Pakistan	PEDO, as a government organization, maintains a uniform accounting system and adopts accounting standards that are not only in compliance with the relevant regulatory authorities but are also aligned with the International Financial Reporting Standards (IFRS) as applicable in Pakistan. Furthermore, PEDO conducts its external audits through a renowned firm of Chartered Accountants to ensure transparency, accountability, and adherence to the highest standards of financial governance.
	ii. Sharing the necessary information and data through website or portal as required by any legal instrument	PEDO is already sharing all the necessary information and relevant data through its official website

		(www.pedokp.gov.pk) and the portals administered by its Information Technology Directorates.
	iii. Reporting all the information required by the authority for the purpose of monitoring	PEDO, from time to time, reports all relevant information to NEPRA and other concerned organizations for monitoring purposes. Furthermore, PEDO promptly responds to NEPRA or any other organization if additional information is requested
	C. Collection and deposit of following charges ,as may be determined by the authority for the purpose of monitoring	
	i. Transmission use of system charges	Under the guidelines of National Electric Power Regulatory Authority (NEPRA), System Use Charges (SUC)—often referred to as wheeling or network charges—are to be recovered from the end consumers who utilize the transmission network. In line with this regulatory framework, Pakhtunkhwa

		Energy Development Organization (PEDO) is adopting the same practice for the 18 MW Pehur Hydropower Project (HPC).
	ii. Distribution use of system charges	Under the guidelines of National Electric Power Regulatory Authority (NEPRA), System Use Charges (SUC)—often referred to as wheeling or network charges—are to be recovered from the end consumers who utilize the distribution network. In line with this regulatory framework, Pakhtunkhwa Energy Development Organization (PEDO) is adopting the same practice for the 18 MW Pehur Hydropower Project (HPC).

PROPOSED BPC'S ALONG WITH THE EXPECTED LOAD AS WELL AS STATUS OF ELECTRICITY CONNECTION OF HOST DISCO

The expected load of the bulk power consumer must not exceed the station's maximum capacity of 10.2 MW as highlighted in the Supply and Demand Assessment Report of Jabori Hydel Power Station. Currently, the area receives electricity from Hazara Electric Supply Company (HAZECO). It is important to ensure that the additional load from the bulk consumer does not surpass the station's limit, to avoid overloading the system and compromising reliability.

Lincoln's Law Chamber™

Corporate Office: 22nd F-Floor, Beverley Centre, Blue Area, Islamabad
Business Center : 22nd M-Floor, Beverley Center, Blue Area, Islamabad

10-08-26

Director (RO)

Forwarded please:
☑ For nec. action ☑ For information

☑ DG (Lic.)	☐ DG (Admn HR)
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☐ DG (Tech.)	☐ DG (ATC)
☐ DG (Fin.)	☐ DG (Enf.)
☐ SLA	☐ [illegible]
☐ General (Tech.)	☐ Consultant (Tech)

For kind information please.
1. Chairman ☑ M (Law)
3. M (Tariff & Fin) 4. M (Tech)
5. M (Law)

REGISTRAR OFFICE
Diary No: 8366
Date: 10-8-26

The Registrar
National Electric Power Regulatory Authority (NEPRA)
NEPRA Tower, Ataturk Avenue (East)
G-5/1, Islamabad

Subject: **Re-submission of Application for Grant of Electric Power Supply Licence for 10.2 MW Jabori Hydropower Project, Mansehra**

Ref No.: **NEPRA/R/LAS-100/10387 dated June 22, 2026**

Dear Sir,

Reference is invited to PEDO's application for the grant of an Electric Power Supply Licence in respect of the 10.2 MW Jabori Hydropower Project, Mansehra, which was originally submitted before the Authority together with the prescribed application fee and the requisite supporting documents in accordance with the applicable provisions of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 and the Eligibility Criteria (Electric Power Supplier Licences) Rules, 2023.

Thereafter, pursuant to the observations communicated by the Authority, PEDO furnished the requisite information and documents from time to time, including its detailed response dated 15 June 2026, together with the documents annexed thereto, in order to address the observations raised by NEPRA.

However, vide letter No. NEPRA/R/LAS-100/10387 dated 22 June 2026, the Authority returned the subject application under Regulation 6(4) of the NEPRA Licensing Regulations. The said action, despite PEDO having duly and timely furnished the requisite information/documents and having remained in continuous correspondence with the Authority in response to the observations raised, is illegal, unlawful, unjustified, arbitrary, and contrary to the applicable regulatory framework and the principles of fair administrative process. Without prejudice to PEDO's rights and remedies available under law to challenge the said action, and in the interest of avoiding any further delay in the processing of the matter, PEDO is hereby re-submitting its application for the grant of the Electric Power Supply Licence together with certified true copies of all relevant documents, including the additional documents furnished in response to the observations of the Authority.

It is further submitted that the prescribed application fee has already been deposited by PEDO in respect of the subject application. Accordingly, no additional application fee is payable on this re-submission, and the same may kindly be adjusted against the fee already deposited.

It may be noted that all future correspondence, notices, communications and requisitions in respect of the subject application shall henceforth be addressed directly to Pakhtunkhwa Energy Development Organization (PEDO), being the Applicant, and not to Lincoln's Law Chamber. The details of PEDO for correspondence are provided in the application.

Ph: +92-51-2814100, Fax: +92-51-2726647, E-mail: barrister.asghar@gmail.com

It is respectfully requested that the enclosed application and accompanying documents may kindly be taken on record and the application may be processed further in accordance with law.

For and on behalf of
Pakhtunkhwa Energy Development Organization (PEDO)

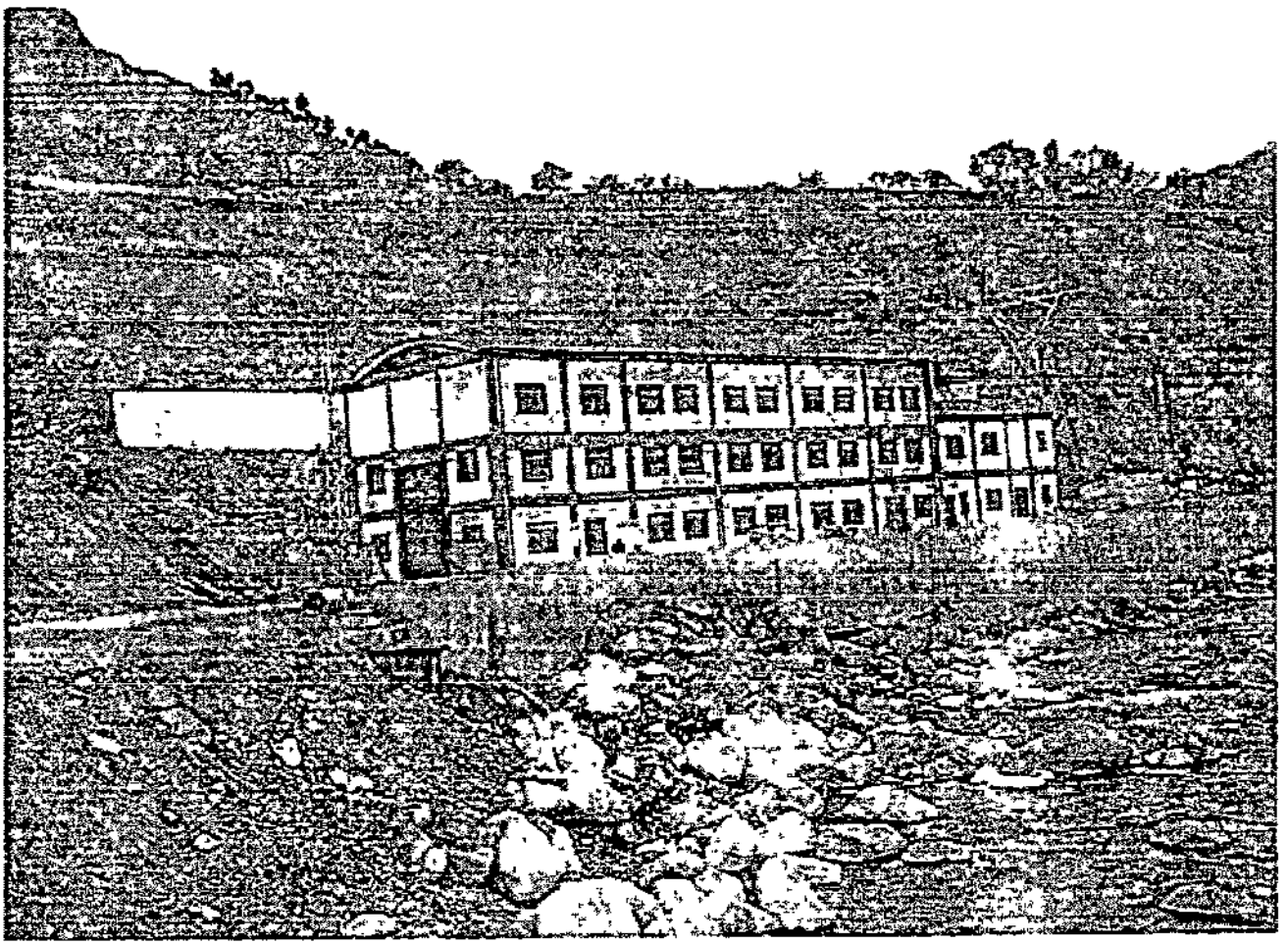
Lincoln's Law Chamber **Stamp:**
Islamabad: August 7, 2026

PROSPECTUS

10.2 MW Jabori Hydel Power Station

1. Introduction:

The Jabori Hydropower Station (Jabori HPS) is a significant energy development initiative located on the Siran River, a left-bank tributary of the Indus River, in District Mansehra, Khyber Pakhtunkhwa. Initially identified by SHYDO (now PEDO) with technical assistance from GTZ, the project is part of a broader master plan for hydropower development in the Hazara region. The feasibility study was completed between 2008-2011, originally proposing a 6.5 MW capacity. However, following the review, the project's capacity was increased to 10.2 MW.



2. Project Location

- Site: Jabori Area, Tehsil Balakot, District Mansehra, Khyber Pakhtunkhwa

- Nearest Grid Station: 132 KV Battal Grid Station
- Accessibility: Accessible via Shinkiari–Jabori Road
- The project area is characterized by perennial water flow, steep gradient, and favorable geological conditions for hydropower development.

3. Project Description

Major structures of Jabori Hydropower Project were substantially completed in 2019, however, due to issues land acquisition for transmission line the work delayed considerably. Moreover, issue of Chinese security was another impediment in timely completion of the project. Ultimately the Project had achieved its Commercial Operation Date (COD) on 02.03.2025. The power generated is being sold to PESCO under Power Acquisition Contract (PAC) with PESCO on Take and Pay Basis. The tariff for sale of power has been determined by NEPRA. It has generated so far, revenue of around Rs. 200 million.

4. Salient Features:

Capacity	10.2 MW
Design Discharge	8 m^3/s
Net Head	151 m
Length of Power Tunnel	2.9 Km
Annual Energy	71 GWh
Project Cost	Rs. 4188.65 million
COD	March 2, 2025
Tariff	
Levelized (1-30 Years)	5.7092 Rs/kWh

5. Technical Configuration

Number of Turbines:	2 x 5.10 MW
Generator Voltage:	11 kV

Step-Up Transformer:	11KV/132KV
Interconnection Voltage Level:	11kV / 132kV
Protection & Control System: SCADA-compatible	
Grid Compliance: In accordance with Grid Code National Grid Company of Pakistan	

6. Environmental & Social Considerations

The Environmental Impact Assessment (EIA) was conducted in accordance with the regulations and guidelines set forth by the Environmental Protection Agency Khyber Pakhtunkhwa (EPA KPK). Compared to large storage dams, the Jabori Hydropower Project has very low social disruption and minimal resettlement requirements, making it more environmentally and socially sustainable.

Environmental flow was maintained downstream of Jabori Hydro Power Station. Likewise, fish protection measures were incorporated. Since hydro power does not rely on burning coal, oil, or gas, it produces negligible direct carbon dioxide (CO_2) emissions. This helps in mitigating climate change by lowering the overall carbon footprint compared to conventional thermal power plants.

PEDO

Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa

No. **496** /PEDO/RE/O&M/JAB
Dated 13/04/2026

TO WHOM IT MAY CONCERN

It is hereby certified that the Pakhtunkhwa Energy Development Organization (PEDO) currently has available the Combined Financial Statements for the year ended 30.06.2022, which have already been submitted to NEPRA along with the Supplier License application for the 10.2 MW Jabori Hydropower Complex, Mansehra, and may be considered as the latest available financial statements.

The financial statements for the years ended 2023, 2024, and 2025 will be submitted to the National Electric Power Regulatory Authority (NEPRA) once they become available.

Resident Engineer
O&M Jabori. HPC

Engr.Saqib Mushtaq
Resident Engineer
O&M Jabori HPS

bakertilly

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INDEPENDENT AUDITOR'S REPORT

To the Executive Committee of Pakhtunkhwa Energy Development Organization

Qualified Opinion

We have audited the accompanying financial statements of **Pakhtunkhwa Energy Development Organization (the Organization),** which comprise the statement of financial position as at June 30, 2022, and the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, except for the effects of the matter described in the *Basis for Qualified Opinion* section of our report, the accompanying financial statements give a true and fair view of the financial position of the Organization as at June 30, 2022, and of its financial performance and its cash flows for the year then ended, in accordance with International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB) as notified by the Securities and Exchange Commission of Pakistan.

Basis for Qualified Opinion

1. As per note 5 of the financial statements, property, plant and equipment' contains the carrying value of Reshun Hydel Power Station amounting to Rs. 537.339 million. The power station was heavily impacted by the 2015 floods which made it completely dysfunctional. Significant costs are required to rehabilitate and restore the power plant. This event is an indicator of impairment. However, management did not carry out impairment test in accordance with the requirements of IAS 36, "Impairment of Assets". In the absence of detailed working in this regard, the impact cannot be quantified.

2. We were appointed as auditors of the PEDO after year ended June 30, 2022 and thus did not observe the counting of the physical stores and spares at the beginning of the year and as of the year end held at Malakand III Hydropower Complex and Pehur Hydropower Station with the carrying amount of Rs. 188.900 million as of June 30, 2022 as per note 5 to the financial statements. We were unable to satisfy ourselves by alternative means concerning inventory quantities held at those dates. We are unable to determine adjustments as may be necessary in the absence of results of physical verification and reconciliation of the same with the financial records.

3. Provision for staff retirement benefits has not been determined on the basis of actuarial valuation as required under the International Accounting Standards 19 "Employees Benefits". Furthermore, while PEDO has a leave encashment policy, relevant details and supporting information regarding this benefit were not made available for our review. Consequently, no provision for this benefit has been recognized in the financial statements.

   We are unable to quantify the impact on the financial statements due to the non-availability of detailed workings in this regard.

verified
Resident Engineer
O&M Jabori, HPC

Baker Tilly Mehmood Idrees Qamar, Chartered Accountants trading as Baker Tilly is a member of the global network of Baker Tilly International Ltd., the members of which are separate and independent legal entities.

We conducted our audit in accordance with the International Standards on Auditing (ISAs) as applicable in Pakistan. Our responsibilities under those standards are further described in *the Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We were independent of the Organization in accordance with the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants* as adopted by the Institute of Chartered Accountants of Pakistan (the Code) and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified opinion.

Emphasis of Matter

1. We draw attention to note 25 read with note 4.13 of the financial statements which states that based on results of reassessment in the current year, management has recognized provision for income tax relating to income derived from power generation facilities located in settled areas, specifically the Pehur power station in Swabi and the Machai power station in Mardan while maintaining the tax position of exemption available as per constitutional provisions and decisions of the Appellate Tribunal Inland for revenuer relating to income derived from power generation facilities located within the erstwhile FATA/PATA regions including Malakand, Shishi, Ranolia, Reshun and Daral Khwar. The note also explains the Organization's exemption from Workers Welfare Fund provisions under the Workers Welfare Fund Ordinance, 1971.

2. We draw attention to note 32 to the financial statements which provides the details and estimated rehabilitation costs of the projects and hydropower stations impacted by the floods of August 2022 in KPK Province.

Our opinion is not modified in respect of the above matters.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB) as notified by the Securities and Exchange Commission of Pakistan and for such internal control as the management determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Organization's ability to continue as going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Organization or cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Organization's financial reporting process.

Auditor's Responsibility for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatements, whether due to fraud or error, and to issue an auditor's report that includes an opinion. Reasonable assurance is a high level of assurance but is not guarantee that an audit conducted in accordance with ISAs as applicable in Pakistan will always detect a material misstatement when it exists. Misstatement can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Verified
Resident Engineer
O&M Jabori, HPC

As part of an audit in accordance with ISAs as applicable in Pakistan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatements of the financial statements, whether due to fraud of error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Organization's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Organization's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw our attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence up to the dates of our auditor's report. However, future events or conditions may cause the Organization to cease to continue as going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentations.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

The engagement partner on the audit resulting in this independent auditor's report is Mr. Siraj Ahmad (R-2522).

Baker Tilly Mehmood Idrees Qamar
Chartered Accountants
Place: Islamabad

Date: March 31, 2026

Unique Document Identification Number: AR202510286kDy8clU4t

Verified.
Resident Engineer
O&M Jabori, HPC

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2022

	Note	2022 Rupees	2021 Rupees
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment			
Operating fixed assets	5	23,617,181,856	7,790,368,628
Capital work in progress	6	57,997,049,565	62,025,717,670
		81,614,231,421	69,816,086,298
Intangible assets	7	2,466,628	1,654,835
Contract asset	8	89,454,780	-
Long term security deposits	9	1,200,000	1,200,000
Long term investments	10	2,036,228	4,072,455
		81,709,389,057	**69,823,013,588**
CURRENT ASSETS			
Receivable from customers	11	4,825,885,862	1,366,731,147
Other receivables	12	430,000,000	434,765,950
Security deposits		190,000	320,000
Prepayments	13	29,484,360	20,444,805
Advances	14	375,584,297	21,748,000
Short term investments	15	85,905,636	71,273,887
Cash and Bank balances	16	3,330,445,735	1,656,438,021
		9,077,495,890	**3,571,721,810**
TOTAL ASSETS		**90,786,884,947**	**73,394,735,398**
EQUITY AND LIABILITIES			
EQUITY			
Government equity		76,948,837,767	55,932,305,494
Retained Earnings		5,189,372,022	4,080,591,808
		82,138,209,789	**60,012,897,302**
NON CURRENT LIABILITIES			
Lease liabilities	17	15,457,415	19,242,715
Long term loans	18	315,853,821	39,643,359
Specific grant - annual development programme	19	1,253,600,396	7,879,646,240
Deferred grant	20	199,994,206	187,962,535
Contributory Provident Fund	21	89,872,767	76,727,082
Gratuity Payable	22	69,714,350	41,599,413
Retention money	23	5,368,444,797	4,514,288,368
		7,312,937,752	**12,759,109,712**
CURRENT LIABILITIES			
Current portion of lease liabilities		3,785,299	2,924,095
Creditors, accrued and other liabilities	24	1,039,647,196	619,804,289
Provision for taxation	25	292,304,910	-
		1,335,737,405	**622,728,384**
TOTAL EQUITY AND LIABILITIES		**90,786,884,947**	**73,394,735,398**
CONTINGENCIES AND COMMITMENTS	26		

The annexed notes form an integral part of these financial statements.

Verified.
Resident Engineer
O&M Jabori, HPS

CHIEF EXECUTIVE OFFICER

DIRECTOR FINANCE

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION

STATEMENT OF COMPREHENSIVE INCOME

FOR THE YEAR ENDED JUNE 30, 2022

	Note	2022 Rupees	2021 Rupees
Revenue			
Revenue from sale of electricity	27	5,202,231,169	1,912,892,146
Other income	28	167,256,053	88,639,624
Amortization of deferred grant	20	16,822,413	9,432,066
		5,386,309,635	**2,010,963,836**
Operating and maintenance cost	29	(1,978,776,064)	(1,009,330,054)
Finance cost		(2,035,905)	(761,989)
Funds transferred		-	(319,604)
Exchange (loss)/gain	30	(395,010,804)	84,960,830
Profit for the year before tax		**3,010,486,862**	**1,085,513,019**
Taxation	25	**(292,304,910)**	-
Other comprehensive income:			
Other comprehensive income to be reclassified to income or expenditure in subsequent periods		-	-
Other comprehensive income not to be reclassified to income or expenditure in subsequent periods		-	-
		-	-
Total comprehensive income for the year		**2,718,181,952**	**1,085,513,019**

The annexed notes form an integral part of these financial statements.

CHIEF EXECUTIVE OFFICER

DIRECTOR FINANCE

Verified
Resident Engineer
O&M Jabori, HPC

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION

STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED JUNE 30, 2022

	Note	Government Equity	Retained Earnings	Total
Balance as at July 1, 2020		**48,149,375,744**	**5,245,078,789**	**53,394,454,53**
Total comprehensive income				
Profit for the year		-	1,085,513,019	1,085,513,01
Other comprehensive income		-	-	-
		-	**1,085,513,019**	**1,085,513,01**
Transactions with shareholders:				
Funds received during the year		7,782,929,750	-	**7,782,929,750**
Funds repaid to Government of KPK		-	(2,250,000,000)	**(2,250,000,000**
		7,782,929,750	**(2,250,000,000)**	**5,532,929,750**
Balance as at June 30, 2021		**55,932,305,494**	**4,080,591,808**	**60,012,897,302**
Balance as at July 1, 2021		**55,932,305,494**	**4,080,591,808**	**60,012,897,302**
Total comprehensive income				
Profit for the year		-	2,718,181,952	2,718,181,952
Other comprehensive income		-	-	-
		-	**2,718,181,952**	**2,718,181,952**
Transactions with shareholders:				
Funds received during the year		11,378,431,348	-	11,378,431,348
Funds received from Asian Development Banl	1.4	9,638,100,925		9,638,100,925
Funds repaid to Government of KPK		-	(1,609,401,738)	(1,609,401,738
		21,016,532,273	**(1,609,401,738)**	**19,407,130,535**
Balance as at June 30, 2022		**76,948,837,767**	**5,189,372,022**	**82,138,209,789**

The annexed notes form an integral part of these financial statements.

CHIEF EXECUTIVE OFFICER

DIRECTOR FINANCE

Verified.
Resident Engineer
O&M Jabori, HPC

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED JUNE 30, 2022

	Note	2022 Rupees	2021 Rupees
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit for the year before tax		3,010,486,662	1,085,513,019
Adjustments:			
Amortization of deferred grant	20	(16,822,413)	(9,432,066)
Depreciation	29	893,731,119	200,772,554
Deferred grant	20	-	112,725,181
Amortization of intangibles assets	7	261,207	169,381
Contributory provident fund	21	11,435,859	10,881,653
Benefit payments from employer	22	-	(6,092,844)
		3,927,207,571	1,394,536,878
(Increase) / decrease in current assets			
Receivables from customer	11	(3,459,154,715)	1,132,835,933
Other receivables	12	4,765,950	(4,765,950)
Prepayments	13	(9,039,555)	41,448,730
Security deposits		130,000	(15,000)
Advances	14	(353,836,297)	1,742,594
Increase / (decrease) in current Liabilities			-
Current portion of lease liabilities		861,204	19,242,715
Creditors, accrued and other liabilities	24	419,842,908	246,567,312
Contributory provident fund		1,709,826	1,158,375
Movement in security deposit		-	(1,200,000)
		(3,394,720,679)	1,437,014,709
Net movement in retention money	23	854,156,429	(100,358,420)
Contract assets	8	(89,454,780)	-
Net cash inflow from operating activities		1,297,188,541	2,731,193,167
CASH FLOWS FROM INVESTING ACTIVITIES			
Additions in property, plant and equipment	5	(2,533,513,506)	(756,369,114)
Additions in intangible assets	7	(1,073,000)	-
Additions in capital work in progress	6	(21,125,149,783)	(9,198,238,567)
Long term investments		2,036,227	-
Additions of investment in TDR	15	(14,631,749)	(12,989,430)
Net cash outflow from investing activities		(23,672,331,791)	(9,967,597,111)
CASH FLOW FROM FINANCING ACTIVITIES			
Funds received from Government of KPK		13,777,969,845	9,796,082,522
Grants received from Asian Development Bank		12,840,955,374	1,014,225,622
Grants received from World Bank		276,210,462	20,991,000
Funds repaid to the Government of KPK		(3,109,401,738)	(2,250,000,000)
Grants received from Education department		267,202,320	-
Movements in lease liabilities	17	(3,785,299)	2,924,095
Net cash inflow from financing activities		24,049,150,964	8,584,223,239
Net increase in cash and cash equivalents		1,674,007,714	1,347,819,295
Cash and cash equivalents at the beginning of the year		1,656,436,021	308,616,726
Cash and cash equivalents at the end of the year	31	3,330,445,735	1,656,438,021

The annexed notes form an integral part of these financial statements.

Verified.
Resident Engineer
O&M Jabori, HPC

CHIEF EXECUTIVE OFFICER

DIRECTOR FINANCE

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2022

1 LEGAL STATUS AND NATURE OF BUSINESS

1.1 The Pakhtunkhwa Energy Development Organization (PEDO) was established by the Government of Khyber Pakhtunkh under the Sarhad Hydel Development Act of 1993, which has since been repealed and replaced with the amend Pakhtunkhwa Energy Development Organization Act of 2020. The principal activities of the Organization are developme and management of energy projects in Khyber Pakhtunkhwa. The head office of the Organization is situated in Phase- Hayatabad, Peshawar. The Organization is currently managing following hydel power stations;

Malakand-III Hydro Power Station, Malakand
Reshun Hydro Power Station, Chitral
Pehur Hydro Power Station, Swabi
Shishi Hydro Power Station, Chitral
Machai Hydro Power Station, Mardan
Darai Khwar Hydro Power Station, Swat
Ranolia Hydro Power Station, Swat

In addition to the above projects, the Organization also implementS different micro hydel projects and solar projects c behalf of the provincial government and hand over the same to local communities or other organization on the direction the provincial government.

1.2 The Pakhtunkhwa Energy Development Organization (PEDO) is implementing the "Khyber Pakhtunkhwa Hydropower an Renewable Energy Development (KHRE)" program, financed by the World Bank under two components: (i) Internationa Development Association (IDA) through Credit No. 6779-PK Special Drawing Rights (SDR) amounting to 177 million, an (ii) International Bank for Reconstruction and Development (IBRD) through Loan No. 9164-PK amounting to USD 20 million. The Loan and Financing agreements were executed between the Government of the Islamic Republic of Pakista and the World Bank on October 15, 2020.

The Project Agreement was signed between World Bank (IDA & IBRD) and the Government Khyber Pakhtunkhwa wa signed on October 16, 2020.

The total cost of the KHRE Program is estimated at USD 786 million, with activities expected to be completed by 2027. I addition to the World Bank financing, the Government of Khyber Pakhtunkhwa is contributing an estimated USD 15 million towards the implementation of the program.

Through a subsidiary agreement (SA) signed between the Government Khyber Pakhtunkhwa Energy and Powe Department and PEDO signed on January 05, 2021, PEDO acknowledged and agreed to carry out and fulfill, mutatis mutandis, all covenants, agreements and obligations of the Government and KP, with respect to, including but not limited to, the liabilities and obligations of the Government and KP relating to payment of the principal, Service Charge and other charges, as set forth in the Financing Agreement, Loan Agreement, and Subsidiary Agreement.

Program activities
The following activities are to be undertaken under the KHRE program:

1. Construction of the 88 MW Gabral-Kalam Hydropower Project (GKHPP) in Swat, at an estimated cost of USD 238 million.

2. Construction of the 157 MW Madyan Hydropower Project (MHPP) in Swat, at an estimated cost of USD 498 million.

3. Feasibility studies and detailed design of new hydropower and other renewable energy (solar and wind) projects, at an estimated cost of USD 15.95 million.

4. Institutional strengthening, capacity building, and technical assistance project, at an estimated cost of USD 8.5 million

1.3 The Government of the Islamic Republic of Pakistan, hereafter referred to as the "Borrower," entered into a loan agreements, specifically a Framework Financing Agreement, identified as Loan 2286-PK and Loan 2287-PAK(SF), with the Asian Development Bank (ADB) on October 5, 2007. These agreements have a duration of twenty-five (25) years, including an initial grace period of five years.

Within the context of these agreements, the ADB has committed to providing financial assistance to the Borrower. Th financial support includes ¥6,909,540,000 from the ordinary capital reserves and 3,396,000 in special drawing rights (SDI from special fund resources, as stipulated in the aforementioned loan agreements. The purpose of these funds is facilitate the implementation of a roadmap and an investment program focused on the development of renewable energ which is referred to as "the investment program."

The investment program encompasses several key initiatives:

The expansion of small hydropower generating capacity through the construction of three grid-connected plants, wil capacities ranging from 2.6 MW to 36 MW.

Conducting feasibility studies for potential project sites.

Providing support for training, capacity development, and institutional strengthening of entities involved in the operatio and maintenance of the new hydropower stations.

..4 Government of Islamic Republic of Pakistan ("Borrower") entered into loan agreements (Loan number 4057-Pak) wit Asian Development Bank (ADB) and with Asian Infrastructure Investment Bank ("AIIB") (Loan number L0339A) on Ma 21, 2021 and September 27, 2021 respectively, under which the ADB and AIIB has agreed to lend to the Borrower a amount of three hundred million Dollars ($300,000,000), and two hundred and fifty million Dollars ($ 250,000,000 respectively to assist in financing of part of the Project Balakot Hydropower Project. Under this agreement 100% paymen of Turnkey contract and Consulting service will be jointly financed by ADB and AIIB.

Furthermore, in accordance with these loan agreements, a project agreement has been executed on the same date as the loan agreements. This project agreement involves ADB and AIIB on one side and KPK and PEDO on the other side. PEDO has been designated as the implementing agency responsible for carrying out the project. The Borrower shall make the proceed of the loans available to KPK upon the terms and conditions satisfactory to the ADB.

For the repayments of the above loans, the borrower is solely responsible as per the schedule provided in the agreements.

2 BASIS OF PREPARATION

2.1 Statement of compliance

These financial statements have been prepared in accordance with the accounting and reporting standards as applicable in Pakistan. The accounting and reporting standards applicable in Pakistan comprise of International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) as notified by Securities and Exchange Commission of Pakistan.

Management has voluntarily adopted this financial reporting framework being fair presentation framework.

2.2 Exemption from the applicability of certain standards

2.2.1 The control of the Projects namely, Malakand- III Hydropower Complex due to purchase of total output by Central Powe Purchasing Agency (CPPA) and in respect of Shishi Hydropower Station by Peshawar Electric Supply Company (PESCO under the Power Purchase Agreement (PPA) are classified as lease as per IFRS16 "Leases". However, the Securities Exchange Commission of Pakistan (SECP) vide S.R.O 986(1)/2019 dated September 02, 2019 has granted exemptio from the requirements of IFRS -16 to the extent of PPA executed before January 1, 2019. Both of the aforementioned projects have entered into PPA with the related power purchasers before January 1, 2019. Accordingly, requirement o lease accounting relating to the Organization's arrangement with CPPA/PESCO was not applicable to the Organization.

Upon application of IFRS -16, the capacity payments made by CPPA/PESCO would be accounted for right-of-use asset with related lease obligation.

The tariff determination of Shishi Hydropower Station is pending with NEPRA and consequently, no Energy Purchas Agreement (EPA) has been signed and therefore, IFRS 16 cannot be applied since data for capacity payments is no available. For the Project Malakand-III hydropower Complex if IFRS 16 would have been applied the impact on th financial statements would be as follows:

	2022	2021
	----Rupees----	
Net impact on statement of financial position		
Non- current assets		
Net investment in finance lease (opening balance)	2,789,035,235	2,820,599,668
Principal repayments	(39,567,407)	(31,564,433)
Net investment in finance lease (closing balance)	**2,749,467,828**	**2,789,035,235**
Derecognition of the property, plant and equipment (at net book value)	3,514,365,812	3,660,797,721
Net impact on statement of financial position	**(764,897,984)**	**(871,762,485)**
Net impact on statement of comprehensive income		
Recognition of finance income on net investment in finance lease	**707,143,277**	**715,146,251**
Derecognition of the depreciation on property, plant and equipment	146,431,909	152,533,238
Net impact on profit or loss	560,711,369	562,613,013

2.2.2 In case of Daral Khwar Hydropower Station, the Energy Purchase Agreement (EPA) with CPPA-G signed on May 14, 2018 contains 'Take and Pay' clause where PEDO bears the hydrological risk and receives payment only for actual energy delivered. Under this arrangement, there are no minimum guaranteed payments or capacity charges, and excess generation beyond the determined annual benchmark energy is charged at 10% of the prevailing tariff. Furthermore, the agreement includes provisions for PEDO to potentially enter into wheeling arrangements and sell electricity to other buyers with an entry/exit clause providing operational flexibility. Given these characteristics, particularly the absence of minimum guaranteed payments and the purely usage-based nature of the arrangement, the agreement does not contain a lease as defined under IFRS 16 and is accordingly accounted for as a revenue contract with customers under IFRS 15.

2.2.3 The Securities and Exchange Commission of Pakistan through SRO 1177(I)/2021 dated September 13, 2021 and in partial modification of its previous S.R.O. 985 (I)/2019 dated September 02, 2019 has granted the exemption to the companies (holding financial assets due form the government of Pakistan) from the requirements contained in "IFRS 9 (Financial Instruments) with respect to application of Expected Credit Losses method till 30 June 2022 and to follow relevant requirements of IAS 39- Financial Instruments during the exemption period. Accordingly, the Organization has not followed the requirements of IFRS 9 with respect to application of Expected Credit Losses in respect of trade receivables and other receivables due from Government of Pakistan. The exemption has been further extended to December 31, 2024 through SRO 67(I)/2023 dated January 20, 2023.

2.3 Basis of measurement

These financial statements have been prepared under the historical cost convention.

2.4 Significant accounting estimates and judgments

The preparation of financial statements in conformity with the approved accounting standards require management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expenses. The estimates and associates assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgments about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised if the revision affects only that period, or in the period of revision and future periods in other cases. Judgments made by management in application of the approved accounting standards that have significant on the financial statements and estimates with a significant risk of material adjustments in the next year are discussed in respective policy notes. The areas where various assumptions and estimates are significant to the Organization's financial statements or where judgment was exercised in application of accounting policies are as follows:

Estimates of useful life of property, plant and equipment (Note 5)

Verified
Resident Engineer
M Jabori, HPC Board

3 Changes in accounting policies and disclosures resulting from adoption of new accounting standard ar amendments

3.1 Standard, interpretation and amendments to accounting standards becoming effective in current year

The following standards, interpretations and amendments to standards have been effective and are mandatory for financi statements of the Organization for the period beginning on or after July 1, 2021 and therefore, have been applied preparing these financial statements.

Interest Rate Benchmark Reform — Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16	January 1, 2021
Covid-19-Related Rent Concessions beyond 30 June 2021 (Amendment to IFRS 16)	April 1, 2021

The impact of adoption of above standards does not have a material impact on the financial statements in the year c adoption.

3.2 Standards, interpretations and amendments to accounting standards that are not yet effective

The following standards, interpretations and amendments to standards have been published and are mandatory for th Organization's accounting periods beginning on or after their respective effective dates:

	Effective Dates
Definition of Accounting Estimates (Amendments to IAS 8)	1 January 2023
Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)	1 January 2023
Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12)	1 January 2023
Classification of Liabilities as Current or Non-current (Amendments to IAS 1)	1 January 2023
Annual Improvements to IFRS Standards 2018–2020	1 January 2022

The above amendments are expected not to have a material impact on the financial statements in the year of adoption.

3.3 Other than the aforesaid standards, interpretations and amendments, the International Accounting Standards Board (IASB has also issued the following standards which have not been notified locally by the Securities and Exchange Commissior of Pakistan (SECP) as at June 30, 2022:

- IFRS 1 – First Time Adoption of International Financial Reporting Standards
- IFRS 17 – Insurance Contracts

The following interpretations/ IFRS issued by IASB have been waived off by SECP:-

- IFRIC 12 – Service Concession Arrangements
- IFRS 2 – Share based payment in respect of Benazir Employees' Stock Option Scheme

4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below have been applied consistently to all periods presented in these financial statement

4.1 Functional and presentation currency

These financial statements are presented in Pakistani Rupee which is the Organization's functional and presentatio currency.

Figures are rounded off to the nearest Rupee except as otherwise stated in the relevant note.

4.2 Property, plant and equipment and capital work in progress

Property, plant and equipment, except freehold land and capital work in progress, are stated at cost less accumulate depreciation and impairment losses, if any. Freehold land and capital work in progress are stated at cost less impairmer losses, if any. Capital work in progress is transferred to operating fixed assets as and when assets are available for use.

Depreciation is provided on a reducing balance method and charged to profit or loss. Depreciation on addition in property plant and equipment is charged from the month of purchase or capitalization upto the month preceding the month of it disposal.

Resident Engineer
Labori

The cost of replacing part of an item of property, plant and equipment is recognized in the carrying amount of the item i is probable that the future economic benefits embodied within the part will flow to the Organization and its cost can l measured reliably. The carrying amount of the replaced part is derecognized, if any. The costs of the day-to-day servici of property, plant and equipment are recognized in profit or loss as incurred.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds fro disposal with the carrying amount of property, plant and equipment, and are recognized net within other income in profit loss.

4.3 Right-of-use assets

The Organization recognizes right-of-use assets at the commencement date of the lease (i.e., the date the underlyin asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairmer losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement dat less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of th lease term and the estimated useful lives of the assets.

Lease liabilities

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencemen date, discounted using the interest rate implicit in the lease or if that rate cannot be readily determined, the Organization's incremental borrowing rate. Generally, the Organization uses its incremental borrowing rate as the discount rate.

Lease payments in the measurement of the lease liability comprise the following:

i) Fixed payments, including in-substance fixed payments;
ii) variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
iii) amounts expected to be payable under a residual value guarantee; and
iv) the exercise price under a purchase option that the Organization is reasonably certain to exercise, lease payments in an optional renewal period if the Organization is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Organization is reasonably certain not to terminate early.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Organization's estimate of the amount expected to be payable under a residual value guarantee, or if the Organization changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

4.5 Intangible assets

These are carried at cost less accumulated amortization and any identified impairment losses. Amortization is calculated, using the straight line method, to allocate the cost of intangible assets over their estimated useful lives, and is charged to profit & loss for the year. Costs associated with maintaining intangible assets, are recognized as an expense as and when incurred.

4.6 Impairment

Non-financial assets

The carrying amounts of non-financial assets other than inventories and deferred tax asset, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessment of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit, or CGU").

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The Organization's corporate assets do not generate separate cash inflows. If there is an indication that a corporate ass may be impaired, then the recoverable amount is determined for the CGU to which the corporate asset belongs. An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amou Impairment losses are recognized in profit and loss account.

Impairment loss recognized in prior periods are assessed at each reporting date for any indications that the loss h decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount do not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment lo had been recognized.

4.7 Stores and spares

The Organization reviews the carrying amount of stock-in-trade, stores and spares on an annual basis, and as appropriat inventory is written down to its net realizable value, or a provision is made for obsolescence if the estimated selling price the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make th sale.

These are valued at cost less allowances for obsolete or slow moving items, if any. Items in transit are valued at co comprising invoice value and other charges incurred thereon.

4.8 Financial Instruments

Financial assets and financial liabilities are recognized when the Organization becomes a party to the contractu provisions of the instrument. Financial assets are derecognized at the time when the Organization transfers substantially a the risks and rewards of ownership of the financial asset.

If the Organization neither transfers nor returns substantially all the risks and rewards of ownership of the financial asse the principal assets are derecognized when the Organization loses control of the contractual rights that comprise th financial asset and financial liability is derecognized at the time when the obligation specified in the contract is discharge or cancelled or expired. Any gain or loss on derecognizing of the financial assets and financial liabilities is taken to th profit or loss currently. All financial assets and liabilities are initially measured at cost which is the fair value of th consideration paid and received, respectively, and subsequently carried at fair value, amortized cost or cost, as the cas may be.

4.8.1 Financial assets

(I) ***Classification***

On initial recognition. a financial asset is classified as measured at:
-amortized cost;
-fair value through other comprehensive income (FVOCL); or
-fair value through profit or loss (FVTPL).
The classification of financial assets is based on the business model in which a financial asset is managed, an its contractual cash flow' characteristics

Amortized cost

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as a FVTPL: (i) it is held within a business model whose objective is to hold assets to collect contractual cash flows; and (ii) it contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on th principal amount outstanding.

Fair value through other comprehensive income (FVTOCI)

A debt investment is measured at FVTOCI if it meets both of the following conditions and is not designated as at FVTPL (i) it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and (ii) its contractual terms give rise on specified dates to cash flows that are solely payments of principa and interest on the principal amount outstanding.

Fair value through profit or loss (FVTPL)

All financial assets not classified as measured at amortized cost or FVTOCI as described above are measured at FVTPL

(II) **Subsequent measurement**

Financial assets at amortized cost

Measured at amortized cost using effective interest method. The amortized cost is reduced by impairment losse Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on recognition is recognized in profit or loss.

Financial assets at FVTPL

Measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.

Debt investments at FVTOCI

These assets are subsequently measured at fair value. Interest income calculated using the effective interest metho foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses a recognized in OCI. On de-recognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments at FVTOCI
These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless th dividend clearly represents a recovery' of part of the cost of the investment. Other net gains and losses are recognized OCI and are never reclassified to profit or loss.

(III) **De- recognition**

The Organization derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and reward of ownership of the financial asset are transferred. or it neither transfers nor retains substantially all of the risks an rewards of ownership and does not retain control over the transferred asset Any interest in such derecognized financia assets that is created or retained by the Organization is recognized as a separate asset or liability.

(IV) **Impairment**

The Organization recognizes loss allowance for Expected Credit Losses (ECL) on financial assets measured at amortize cost, other than those due from the Government of Pakistan entities as the Securities and Exchange Commission o Pakistan has granted the exemption as mentioned above in note 2.2.3. For other trade receivables, the Organizatio applies a simplified approach in calculating ECL. Therefore, the Organization does not track changes in credit risk, bu instead recognizes a loss allowance based on life time ECLs at each report ing date, The Organization has established provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment. For other financial assets, the Organization applies general approach fo calculating ECL. The Organization evaluates credit quality of the financial assets under general approach for evaluation o associated credit risk.

Life time ECLs are those that result from all possible default events over the expected life of a financial instrument. The maximum period considered when estimating ECLs is the maximum contractual period over which the Organization is exposed to risk.

At each reporting date, the Organization assesses whether the financial assets carried at amortized cost are credits impaired. A financial asset is credit-impaired when one or more events that have detrimental impact on the estimated future cash flows of the financial assets have occurred.

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. The gross carrying amount of a financial asset is written off when the Organization has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. For recognition of impairment on financial assets due from the Government of Pakistan entities, the Organization continues to apply the accounting policy as stated below

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4.8.2 Financial liabilities

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as at FVTPL i is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Intere expense and foreign exchange gains and losses are recognized in statement of profit or loss. Any gain or loss on c recognition is also included in profit or loss.
The Organization derecognizes a financial liability when its contractual obligations are discharged or cancelled or expi Any gain / (loss) on the recognition and de-recognition of the financial assets and liabilities is included in the statement profit and loss for the period in which it arises.

4.8.3 Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is reported in the financial statements only whe there is legally enforceable right to set-off the recognized amount and the Organization intends either to settle on a n basis, or to realize the assets and to settle the liabilities simultaneously.

4.9 Provisions

A provision is recognized in the balance sheet when the Organization has a legal or constructive obligation as a result of past event, and it is probable that an outflow of economic benefits will be required to settle the obligation and a reliabl estimate can be made of the amount of obligation. However, provisions are reviewed at each balance sheet date an adjusted to reflect the current best estimate.

4.10 Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, cash with banks on current, saving and deposit accounts, short terr financing (overdraft) and other short term highly liquid investment that are readily convertible to known amounts of cas and which are subject to insignificant risk of change in value.

4.11 Employee benefits

The Organization operates a defined contribution contributory provident fund for its employees for which contributions an charged to income and expenditure account for the year. Equal monthly contributions are made to the Fund both by the Organization and employees. The provident fund is centrally maintained and contribution made by the Organization are no allocated to the Projects.

The Organization also operates an unfunded gratuity scheme for its employees who have completed the minimum qualifying period of service as defined under the scheme. The liability is calculated with reference to the last drawn basic pay in the financial year and length of service. Provision for gratuity scheme is not allocated to the Projects.

4.12 Revenue recognition -

Revenue from sale of electricity

The Organization generates revenue primarily through arrangements under Power Purchase Agreements (PPAs) with CPPA-G and industrial consumers. Revenue is recognized when the Organization satisfies its performance obligations by transferring promised goods or services to customers in an amount that reflects the consideration to which the Organization expects to be entitled.

Generation and Sale of Electricity to CPPA-G/ PESCO
Revenue from the generation and sale of electricity comprises two main components:
a. Energy Purchase Price (EPP): Revenue is recognized based on the actual electricity units delivered to customers, measured at rates specified in the respective PPAs
b. Capacity Purchase Price (CPP): For applicable power stations, capacity revenue is recognized when due based on the availability of the plant, calculated according to the mechanisms established in the relevant PPAs

Ancillary Services and Other Performance Obligations under PPAs
The Organization recognizes revenue from ancillary services, including insurance, operations, and maintenance, over time as these services are provided. The transaction price for these services is determined based on the considerations specified in the respective PPAs.

Resident Engineer

Distribution Services
For power stations engaged in distribution activities (wheeling arrangements), revenue is recognized based on electric units supplied to end consumers in accordance with the tariff rates determined by the Organization.

Contract Modifications
Revenue recognition terms may be modified through wheeling arrangements or amendments to existing agreements. Su modifications are accounted for based on the specific terms of the revised arrangements.

Performance Obligations
The Organization identifies performance obligations in contracts with customers and recognizes revenue when the obligations are satisfied, either:
- Over time, where the customer simultaneously receives and consumes the benefits provided; or
- At a point in time, upon delivery of electricity units

Measurement
Revenue is measured at the transaction price specified in the contracts, which may include fixed and variable component Variable consideration is estimated using either the expected value method or the most likely amount method, dependir on which better predicts the amount of consideration to which the Organization will be entitled.

Contract Assets and Liabilities
The timing of revenue recognition, billing, and cash collection results in billed accounts receivable, unbilled receivable (contract assets), and customer advances (contract liabilities) on the statement of financial position.

Significant Financing Component
The Organization evaluates whether its contracts contain a significant financing component. Payment terms are based o standard industry practices and do not typically exceed one year between the transfer of electricity and payment.

Head Office service charges

The organization claims head office service charges from the Finance Department of Government of Khyber Pakhtunkhw against the services provided to under construction projects. These service charges are calculated on disbursement mad to contractors, consultants and project management unit cost, using different percentages as mentioned under the PC-I o the said projects.

Head office service charges are recognized when received from the Finance Department of Government of Khybe Pakhtunkhwa.

4.13 Provision for taxation and worker welfare fund

4.13.1 Power Stations in FATA/PATA Areas

Majority of revenue derived by PEDO from sale of electricity is from power generation facilities namely Malakand, Shishi Reshun, Daral Khwar and Ranolia hydropower plants which are located within the erstwhile Federally Administered Triba Areas (FATA) or Provincially Administered Tribal Areas (PATA). As per the constitutional provisions contained in Article 246 and 247, federal tax laws, including the Income Tax Ordinance, were not extended to these areas. Further, both the power generation plants (where PEDO acts as the seller) and the grid stations of the National Transmission and Dispatch Company (NTDC, the buyer) are located within non-tariff areas. Legal precedents establish that income accrues at the location where the sale is effected and where the property changes hands. The Supreme Court of Pakistan has consistently upheld that the Constitution grants complete immunity from Sales Tax and Income Tax in FATA/PATA areas.

The Appellate Tribunal Inland Revenue (ATIR) in its decisions for the past tax years has ruled in favor of PEDO, primarily based on the constitutional immunity granted to FATA/PATA areas. These decisions are primarily based on the ground that the Income Tax Ordinance was never extended to FATA/PATA areas, income-generating activities of PEDO are confined to these exempt territories and finally, both the infrastructure for generation and distribution of income exists within non-tariff areas. These rulings are further reinforced by Supreme Court precedents that have consistently upheld complete immunity from federal taxes in these designated special territories.

The exemption has been extended for FATA/PATA by the Finance Act, 2025 till June 30, 2026.

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O&M Jabori, HPC
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4.13.2 Power Stations in Settled Areas:

Income derived from power generation facilities located in settled areas, specifically the Pehur power station in Swabi a the Machai power station in Mardan, is subject to taxation under the Income Tax Ordinance, 2001.

4.13.3 Provision for worker, welfare, fund

As per section 2(f)(vi) of the Workers Welfare Fund Ordinance, 1971, the Organization, being owned and established the Government, does not fall within the definition of an Industrial Establishment and is therefore exempt from maintaini Workers Welfare Fund provisions.

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PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
NOTES TO THE FINANCIAL STATEMENTS
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5 Operating fixed assets

Description	2022							
	Cost			Accumulated Depreciation			Net book value as at June 30, 2022	Rate of depreciation
	As at July 1, 2022	Additions/ Reclassification	As at June 30, 2022	As at July 1, 2022	For the year	As at June 30, 2022		
	Rupees							%
Land (free hold)	2,316,644,684	2,368,136,353	4,684,781,037	-	-	-	4,684,781,037	0
Reshun Hydel Power Station	782,256,084	-	782,256,084	244,917,165	-	244,917,165	537,338,919	4
Malakand III Hydel Power Station	5,974,766,481	-	5,974,766,481	2,371,907,521	144,114,358	2,516,021,879	3,458,744,602	4
Pehur Hydel Power Station	910,704,497	-	910,704,497	346,801,847	22,556,106	369,357,953	541,346,544	4
Shishi Hydel Station	265,881,912	1,748,250	267,630,162	98,606,433	6,708,502	105,314,935	162,315,227	4
Daral Khwar Hydropower station	-	3,436,877,665	3,436,877,665	-	249,586,357	249,586,357	3,187,291,308	4
Ranolia Hydropower station	-	4,631,178,462	4,631,178,462	-	138,976,040	138,976,040	4,492,202,422	4
Machai Hydropower station	-	822,080,842	822,080,842	-	66,976,570	66,976,570	755,104,272	4
Transmission line	-	379,880,320	379,880,320	-	21,003,660	21,003,660	358,876,660	4
Buildings on free hold land	219,562,523	5,033,020,305	5,252,582,828	76,627,011	198,244,803	274,871,814	4,977,711,014	5
Computer, printers and accessorie	31,674,500	7,027,041	38,701,541	17,317,240	3,534,936	20,852,176	17,849,365	20
Electrical equipment	14,074,297	5,445,480	19,519,777	1,993,773	22,013,381	24,007,154	(4,487,377)	20
Office Equipment	54,080,943	99,600	54,180,543	45,459,645	1,744,179	47,203,824	6,976,719	20
Furniture and fixture	18,289,143	4,923,653	23,212,796	10,795,048	1,379,840	12,174,888	11,037,908	10
Motor vehicles	356,780,275	109,116,004	465,896,279	197,291,004	49,543,245	246,834,249	219,062,030	20
Medical equipment	206,300	-	206,300	197,226	1,816	199,042	7,258	20
Arms and ammunition	2,086,680	-	2,086,680	1,951,588	27,019	1,978,607	108,073	20
Stores and spares	233,112,798	-	195,030,318	3,790,123	2,340,098	6,130,221	188,900,097	1
Other assets	16,124,298	-	16,124,298	9,692,329	1,286,393	10,978,722	5,145,576	20
Right-of-use-assets	23,004,821	-	23,004,821	1,533,655	4,600,964	6,134,619	16,870,202	
	11,219,250,236	16,799,533,975	27,980,701,731	3,428,881,608	934,638,267	4,363,519,875	23,617,181,856	

5.1 Right of use assets represents the ground floor leased by PEDO for the Project KHREDP (Refer to note 17.1) which is depreciated over related lease term by using straight line meth

5.2 Daral Khwar, Ranolia, and Machai Hydropower Stations have been reclassified from capital work-in-progress following their completion and start of commercial operations. Depreciation has been applied starting from their respective commercial operation dates (see Note 6.2).

	Note	2022 Rupees	2021 Rupees
5.3 Depreciation charged for the year has been allocated as follows:			
Operating and maintenance cost	29	893,731,119	200,772,554
Capital work in progress	6	40,919,490	36,548,930
		934,650,608	237,321,484

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PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2022

Description	2021							
	Cost			Accumulated Depreciation			Net book value as at June 30, 2021	Rate of depreciation
	As at July 1, 2020	Additions/ Reclassification	As at June 30, 2021	As at July 1, 2020	For the year	As at June 30, 2021		
	Rupees							%
Land (free hold)	1,751,499,788	565,144,896	2,316,644,684	-	-	-	2,316,644,684	0
Reshun Hydel Power Station	782,256,084	-	782,256,084	244,917,165	-	244,917,165	537,338,919	4
Malakand III Hydel Power Station	5,974,766,481	-	5,974,766,481	2,221,788,398	150,119,123	2,371,907,521	3,602,858,960	4
Pehur Hydel Power Station	910,704,497	-	910,704,497	323,305,634	23,496,213	346,801,847	563,902,650	4
Shishi Hydel Station	265,881,912	-	265,881,912	91,636,621	6,969,812	98,606,433	167,275,479	4
Buildings on free hold land	218,562,523	1,000,000	219,562,523	67,475,447	9,151,564	76,627,011	142,935,512	5
Computer, printers and accessorie	26,299,601	5,374,899	31,674,500	14,779,558	2,537,682	17,317,240	14,357,260	20
Electrical equipment	5,307,329	8,766,968	14,074,297	1,035,307	958,466	1,993,773	12,080,524	20
Office Equipment	53,841,088	239,855	54,080,943	43,351,289	2,108,356	45,459,645	8,621,298	20
Furniture and fixture	17,675,999	613,144	18,289,143	9,775,347	1,019,701	10,795,048	7,494,095	10
Motor vehicles	293,337,075	63,443,200	356,780,275	161,154,363	36,136,641	197,291,004	159,489,271	20
Medical equipment	206,300	-	206,300	194,958	2,268	197,226	9,074	20
Arms and ammunition	2,086,680	-	2,086,680	1,917,815	33,773	1,951,588	135,092	20
Stores and spares	144,331,468	88,781,330	233,112,798	2,143,885	1,646,238	3,790,123	229,322,675	1
Other assets	16,124,298	-	16,124,298	8,084,336	1,607,993	9,692,329	6,431,969	20
Right-of-use-assets	-	23,004,821	23,004,821	-	1,533,655	1,533,655	21,471,166	
	10,462,881,123	**756,369,113**	**11,219,250,236**	**3,191,560,123**	**237,321,485**	**3,428,881,608**	**7,790,368,628**	

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		Note	2022 Rupees	2021 Rupees
6	**CAPITAL WORK IN PROGRESS**			
	Opening capital work in progress		62,025,717,670	52,791,722,64
	Additions during the year			
	EPC contractor payments		19,712,060,641	8,242,710,99
	Management consultant		612,284,783	676,083,62
	Project management unit cost		278,948,776	93,947,84
	Transmission line		7,957,306	38,145,62
	Other charges		525,040,557	80,011,48
		6.1	**21,136,292,063**	**9,130,899,56**
	Depreciation capitalized		40,957,667	36,587,10
	Head office service charges		65,431,796	66,508,35
	Transfer to property, plant and equipment	6.2	(14,266,020,469)	-
	Transfer to beneficiaries	6.3	(11,320,859,162)	-
	Transferred projects	6.4	315,530,000	-
	Closing capital work in progress		**57,997,049,565**	**62,025,717,67**

6.1 This includes Rs. 4.019 billion pertaining to solar projects and mini and micro hydel power stations. According to the PC 1 plan for these projects, the solar home systems (SHS) and mini hydel stations will be transferred to beneficiaries upo completion. During the defect liability period (DLP), the contractors will be responsible for operating and maintaining th SHS and mini hydel stations. Furthermore, once completed, the costs associated with these projects will be written o against specific grants (*note 19*).

6.2 This represents the transfer of projects namely Daral Khwar HPP, Ranolia HPP and Machai HPP to operating fixe assets upon completion and start of commercial operations. The transfer of these assets have been made as per th PC-IV of the transferred projects.

6.3 The transfers to beneficiaries have been made upon the completion of the solar projects namely "Civil Secretaria (Rs.165,637,140), CM Secretariate (Rs.109,210,861), Solar Electrification of 4000 Masajid (Rs.2,279,526,659), mi micro hydel power station (Rs.4,479,671,590), Electrification of 100 Villages (Rs.357,759,560), Electrification of U electrified villages (Rs.94,149,545), Solarization of Masajid In District Swat & 440 Masajid In Peshawar (R 809,806,297) and Solarization of schools and health facilities in KP(Rs.3,025,097,508) according to their respective P

6.4 This reflects the transfer of projects from the Irrigation and defunct FATA departments including associated costs of R 283,780,000 for contractor payments, Rs. 12,220,000 for consultant payments, and Rs. 19,530,000 for the Proje Management Unit. These amounts are based on the cost breakdowns provided by the respective departments at th time of projects transfer. Going forward, further expenditures related to these transferred projects will be borne by PED through the MMHP Project.

		2022 Rupees	2021 Rupees
7	**INTANGIBLE ASSETS**		
	Book value at the beginning of the year		
	Cost	4,151,157	4,151,15
	Accumulated amortization	2,496,322	2,288,76
	Net book value	**1,654,835**	**1,862,39**
	Reconciliation for the year		
	Additions during the year	1,073,000	-
	Amortization charge	261,207	207,55
	Closing net book value	**2,466,628**	**1,654,83**
	Book value at the end of the year		
	Cost	5,224,157	4,151,15
	Accumulated amortization	2,757,529	2,496,32
	Net book value	**2,466,628**	**1,654,83**
	Annual rate of amortization (%)	5%	5

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			2022 Rupees	2021 Rupees
8	**CONTRACT ASSET**			
	Wheeling charges receivable from industry	8.1	89,454,780	-

8.1 As per the energy purchase agreement (EPA) between PESCO and PEDO for Pehur Hydropower Station, wheelli charges are payable at the rate specified in the relevant agreement for using of the transmission line of the PESC These charges are recovered from the industries to whom units are sold, upon issuing of the bills.

		Note	2022 Rupees	2021 Rupees
9	**LONG TERM SECURITY DEPOSITS**	9.1	1,200,000	1,200,00(

9.1 This represents the security paid to NESPAK (Lessor) for the Project KHREDP, and equal to three (03) months rent @ Rs. 400,000 per month for lease purposes.

		2022 Rupees	2021 Rupees
10	**LONG TERM INVESTMENT**	2,036,228	4,072,455

10.1 This represents investment in Munafa Certificates of Bankers Equity Limited (BEL) made in 1998 and were matured i March 2000. However, BEL had undergone into winding up by the court and official liquidator was appointed b Honorable Sindh High Court. The claim of PEDO will be paid on pro-rata basis after paying off preferential creditor under the relevant provision of the repealed Companies Ordinance, 1984.

		Note	2022 Rupees	2021 Rupees
11	**RECEIVABLE FROM CUSTOMERS**			
	Unsecured	11.1	4,825,885,862	1,366,731,147

11.1 Location wise break of receivables is as under;

Malakand III	*(Receivable from CPPA)*		1,350,222,266	1,190,599,309
Reshun	*(Receivable from General Consumers)*		53,944,079	29,043,412
Pehur	*(Receivable from CPPA and Industries)*	11.2	1,883,227,522	122,970,393
Shishi	*(Receivable from PESCO)*		31,151,263	24,118,033
Machai	*(Receivable from CPPA)*		98,407,779	-
Daral Khwar	*(Receivable from CPPA)*		1,358,881,741	-
Ranolia	*(Receivable from CPPA)*		50,051,212	-
			4,825,885,862	1,366,731,147

11.2 The includes a price differential claim (PDC) receivable from CPPA.(refer to note 27.4).

		Note	2022 Rupees	2021 Rupees
12	**OTHER RECEIVABLES**			
	Receivable from contractors		-	4,765,950
	Tax receivable	12.1	430,000,000	430,000,000
			430,000,000	434,765,950

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12.1 This represents a payment made in protest in light of the decision and agreement between the Chief Minister of Khyb Pakhtunkhwa and the Chief Commissioner of the Regional Tax Office (RTO) in Peshawar on behalf of the Fede Board of Revenue (FBR) as a provisional payment to be adjusted against the total potential liabilities of PEDO determined by the legal forums. In response to this payment, the FBR has unfreezed all the accounts of PEDO th were previously frozen and issued a withdrawal notice to the CPPA-(G). The FBR has also indicated that it will not tal any further coercive measures until the final resolution of issues regarding the tax liability.

	Note	2022 Rupees	2021 Rupees
13 PREPAYMENTS			
Insurance premium		25,713,235	18,372,61
Prepaid rent		3,771,125	2,072,19
		29,484,360	**20,444,80**
14 ADVANCES			
Advance to vendors -secured and considered good	14.1	375,414,897	21,748,00
Advance to employees		169,400	-
		375,584,297	**21,748,00**

14.1 These amounts include Rs. 269,751,375 and Rs. 85,665,773 paid to EPC contractors for the projects Solarization Schools in Merged Areas project and the Solarization of Mosques and Worship Places in Merged Areas, respectivel These payments were made in accordance with section 33.1.3 of the relevant contract agreements for the purchase materials and are secured by indemnity bonds obtained from the respective contractors.

	Note	2022 Rupees	2021 Rupees
15 SHORT TERM INVESTMENTS			
Opening balance as of 1 July		71,273,887	68,797,18
Additions	15.1	10,945,249	-
Profit due on investment		3,686,500	2,476,69
		85,905,636	**71,273,88**

15.1 This represents investment in Allied Bank Limited @ 10.55% per annum in fixed deposit for six months period maturin on July 15, 2022.

	Note	2022 Rupees	2021 Rupees
16 CASH AND BANK BALANCES			
Cash in hand - held as Call Deposit Receipt (CDR)		2,528,104,439	1,118,078,15
Cash at bank			
current account		457,483,604	153,716,25
saving account	16.1	103,461,229	203,907,61
Cash in transit		240,457,151	180,000,00
Cash in hand		939,312	736,00
		3,330,445,735	**1,656,438,02**

16.1 This balance includes Rs. 4,951,213 deposited in to a separate bank account maintained with Sindh Bank Limite against Contributory Provident Fund (2021: Rs. 5,453,196) and is restricted for use in the normal operation of th

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	Note	2022 Rupees	2021 Rupees
17 LEASE LIABILITIES			
The movement in the lease liabilities is as follows:			
Opening balance as of 1 July		**22,166,810**	-
Additions during the year	17.1		24,528,79
Finance cost		2,035,905	- 761,98
Lease rental payments		(4,960,000)	- 1,600,00
Closing balance as of 30 June		**19,242,715**	**22,166,81**
Current		3,785,299	2,924,09
Non-current		15,457,416	19,242,71
		19,242,715	**22,166,81**

Maturity analysis of lease liabilities:

	Minimum lease payments	Financial charges allocated to future periods	Present value of minimum lease payments
		2022	
		PKR	
Not later than one year	5,456,000	1,670,701	3,785,299
Later than one year but not later than five years	17,288,480	1,831,064	15,457,416
	22,744,480	**3,501,765**	**19,242,715**
		2021	
		PKR	
Not later than one year	4,960,000	2,035,905	2,924,095
Later than one year but not later than five years	22,744,480	3,501,765	19,242,715
	27,704,480	**5,537,670**	**22,166,810**

17.1 The Organization has entered into lease for office premises of the Project (KHREDP) with National Engineering Services Pakistan (Pvt) Ltd (NESPAK) over the ground floor of the building owned by NESPAK for 5 years starting from March 01, 2021. Incremental borrowing rate of 10% p.a. is used by the lessee for discounting the lease payments over the lease term. The rent for the lease space is Rs. 40/Sq-ft per month, which also includes various services(non-lease components) to be provided by the lessor. However, the practical expedient allows the lessee to elect by class of underlying asset, not to separate non-lease components from lease component, and instead account for each lease component and associated non-lease components as a single lease component. The Organization has applied the practical expedient in accounting for lease and non-lease component as a single lease component.

	Note	2022 Rupees	2021 Rupees
18 LONG TERM LOAN			
Opening balance as of 1 July		39,643,359	18,652,359
Loan received during the year	18.1	88,166,388	20,991,000
Commitment charges		188,044,074	-
Closing balance as of 30 June		**315,853,821**	**39,643,359**

18.1 This represents the direct payments made to consultants by the World Bank (Refer to note 1.2). The amount of withdrawn balance shall be repaid, as per the schedule 1 (Customized Amortization Repayment Schedule) of the loan agreement (Loan no.9164-PK) after the notice for repayment by the World bank.

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		Note	2022 Rupees	2021 Rupees
19	**SPECIFIC GRANT - ANNUAL DEVELOPMENT PROGRAMME**			
	Opening balance as of 1 July		7,879,646,240	4,853,098,49
	Grant received during the year		2,399,538,497	2,013,152,77
	Community share received		-	53,46
	Grants received from Asian Development Bank	19.1	3,202,854,449	1,014,225,62
	Grants received from Education department	19.2	267,202,320	-
	Funds repaid to Government of KPK	19.3	(1,500,000,000)	-
	Transfer to beneficiaries	6.3	(11,311,171,110)	-
	Head office service charges		-	(884,10
	Transferred grant	6.4	315,530,000	-
	Closing balance as of 30 June		**1,253,600,396**	**7,879,646,24**

19.1 This represents the direct disbursement made to contractors and consultants and the cost incurred on the proje management unit of the projects namely, Mini micro hydel power stations, solarization of 8,000 schools and 183 bas health unit in KP (*refer to note 1.3*).

19.2 These are the grants received from Education department for the solarization of schools in merged areas.

19.3 Mini Micro Hydropower Stations (MMHPs) received the funds amounting to Rs. 1.5 billion from Annual Developme Program (ADP) - Government of KPK to cover the funding gap due to non-signing of agreement between PEDO ar ADB, and the same has been repaid to the Government of KPK upon signing and receipt of funds from ADB as earli agreed-upon with the Government of KPK.

		Note	2022 Rupees	2021 Rupees
20	**DEFFERED GRANT**			
	Opening balance		187,962,535	84,669,42
	Grant received during the year		28,854,084	112,725,18
	Amortization of deferred grant - transferred to income and expenditure		(16,822,413)	(9,432,06
		20.1	**199,994,206**	**187,962,53**

20.1 This includes Rs. 119,175,519 allocated for purchasing land for the "13 Mini Grids" project, which is recorded und operating fixed assets (note 5). However, as outlined in the project's PC-1, the installed plant and land will be transferr to the District Administration through the Administrative Department upon completion. Consequently, this amount will written off from the deferred grant and operating fixed assets.

		2022 Rupees	2021 Rupees
21	**CONTRIBUTORY PROVIDENT FUND**		
	Opening balance	76,727,082	64,687,05
	Contribution during the year	11,435,859	10,881,65
	Surplus for the year	3,911,475	2,028,04
	Payments made to members	(2,201,649)	(869,66
		89,872,767	**76,727,08**

21.1 It has been maintained by the Organization for its employees. The funds are deposited in to a separate bank accou maintained with Sindh Bank Limited for this purpose .

			2022 Rupees	2021 Rupees
22	**GRATUITY PAYABLE**			
	Opening balance		41,599,413	47,692,25
	Benefit payment from employer		-	(6,092,84
	Expense for the year	22.1	28,114,937	
			69,714,350	**41,599,41**

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22.1 The latest actuarial valuation of Organization's defined benefit plan based on the Projected Unit Credit Method w carried out as at June 30, 2020 by Anwar Associates while no actuarial valuation has been conducted by Organization the current year and prior year. The provision has been recorded in the current year based on the policy followed by t Organization i.e., number of years of service of an employee into the gross salary.

		Note	2022 Rupees	2021 Rupees
23	**RETENTION MONEY**			
	Opening balance as of 1 July		4,514,288,368	4,614,646,78
	Additions during the year		459,145,625	(15,397,59
	Exchange loss/ (gain)	23.1	395,010,804	(84,960,83
	Closing balance as of 30 June		**5,368,444,797**	**4,514,288,36**

23.1 This represents the impact of translation of dollar component of retention money at the year end. As per the contra agreement of the projects any foreign component including any import, if required and approved by PEDO shall also b paid in local currency to the contractors as per the exchange rate prevailing on the date of payment as notified by th State Bank of Pakistan. Previously, PEDO was claiming the retention money from the Finance Division of Governme of KPK as the payment for retention money would become due to the contractors and claim in that regard is received b PEDO. However, subsequent to June 30, 2020, on July 1, 2020 the responsibility for the payment of retention mone has now been transferred to PEDO, therefore, foreign currency component has been translated to local currency as c the closing date.

		Note	2022 Rupees	2021 Rupees
24	**CREDITORS, ACCRUED AND OTHER LIABILITIES**			
	Payables to management consultant		30,733,419	146,280,219
	Payables to EPC contractors		20,848,921	30,797,734
	Creditors		20,591,635	-
	Disable person rehabilitation payable		2,903,229	5,548,000
	WHT payables		355,158,563	238,393,032
	Sales tax payable		293,033,963	864,813
	Salaries payable		450,561	759,000
	Audit fee		7,080,000	8,292,541
	Security from contractors and suppliers		115,840,054	107,261,565
	Water usage charges payable		110,936,871	72,489,214
	Advance income tax payable		264,227	6,443,365
	Electricity duty payable		1,344,179	-
	Meter security from customers		2,674,807	2,674,807
	Wheeling charges payable-net	24.1	77,786,767	-
			1,039,647,196	**619,804,289**

24.1 As per the energy purchase agreement (EPA) between PESCO and PEDO for Pehur Hydropower Station, wheelin charges are payable at the rate specified in the relevant agreement for using of the transmission line of the PESCO These charges are recovered from the industries to whom units are sold, upon issuing of the bills. These are recorde net of sales tax of amount of Rs. 10,322,054.

25	**PROVISION FOR TAXATION**	4.13	**292,304,910**	-

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26 CONTINGENCY AND COMMITMENTS

26.1 Contingencies:

(i) Income Tax

Tax Year 2013

During May 2021, the Organization faced a tax proceeding initiated by the Commissioner Inland Revenue through show cause notice dated May 27, 2021, under section 121(1) of the Income Tax Ordinance, 2001, challenging t Organization's treatment of business income as exempt. Following the Organization's response submitted on June 2021, an assessment order was issued under section 122(1) of the Ordinance on September 24, 2021, involving amount of Rs. 762.61 million. The Organization appealed this decision to the Commissioner IR (Appeals) on October 2021, who, through an order dated March 21, 2023, remanded the case back to the assessing officer with directions determine and tax only the revenue arising from electricity supply to tariff areas. The Organization, not being satisfi with this decision, filed a further appeal before the Appellate Tribunal Inland Revenue on July 12, 2023, where t matter is currently pending adjudication. Based on the opinion of the Organization's tax consultant, manageme believes that the outcome of this appeal will be favorable to the Organization. Hence no provision has been recorded this regard.

Tax Year 2017

A tax proceeding for Tax Year 2017 was initiated by the Commissioner Inland Revenue through a show cause noti dated March 17, 2021, under section 122(9) read with section 122(5A) of the Income Tax Ordinance, 2001, challengi the Organization's treatment of business income as exempt. Following the Organization's response submitted on April 2021, an assessment order was issued under section 122(5A) of the Ordinance on April 23, 2021, involving an amou of Rs. 488 million. The Organization appealed this decision to the Commissioner IR (Appeals) on May 20, 2021, w decided in favor of the Organization through an order dated January 18, 2022. Subsequently, the Organization filed appeal before the Appellate Tribunal Inland Revenue on March 10, 2022, seeking deletion of specific observations in t Commissioner IR (Appeals) order. Additionally, the tax department has filed a cross appeal on February 18, 2022. Bo appeals are currently pending before the Appellate Tribunal Inland Revenue. Based on the opinion of the Organizatio tax consultant, management believes that the outcome of these appeals will be favorable to the Organization. Hence provision has been recorded in this regard.

Tax Year 2018

Tax proceeding for Tax Year 2018 was initiated by the Commissioner Inland Revenue through a show cause noti dated March 17, 2021, under section 122(9) read with section 122(5A) of the Income Tax Ordinance, 2001, challengi the Organization's treatment of business income as exempt. Following the Organization's response submitted on April 2021, an assessment order was issued under section 122(5A) of the Ordinance on November 17, 2021, involving amount of Rs. 522 million. The Organization appealed this decision to the Commissioner IR (Appeals) on December 1 2021, who decided in favor of the Organization through an order dated June 9, 2022. Subsequently, the Organizati filed an appeal before the Appellate Tribunal Inland Revenue on August 10, 2022, seeking deletion of speci observations in the Commissioner IR (Appeals) order. The case is currently pending before the Appellate Tribun Inland Revenue. Based on the opinion of the Organization's tax consultant, management believes that the outcome this appeal will be favorable to the Organization.

A separate tax proceeding for Tax Year 2018 was initiated when the Organization's tax return was selected for au under section 177 of the Income Tax Ordinance, 2001. Following a show cause notice dated December 6, 2023, assessment order was issued on February 28, 2024, under section 122(1) of the Ordinance. The Organization filed appeal against this order with the Commissioner IR (Appeals), Peshawar on March 26, 2024, involving an amount of R 698 million. The case was heard on July 29, 2024, and is currently pending adjudication. Based on the opinion of t Organization's tax consultant, management believes that the outcome of this appeal will be favorable to t Organization.

Additionally, the Organization's tax return for Tax Year 2018 was selected for withholding tax audit under secti 161(1A) of the Income Tax Ordinance, 2001. Following a show cause notice dated March 27, 2024, an assessme order was issued on June 30, 2024, under section 161(1) of the Ordinance. The Organization filed an appeal again this order with the Appellate Tribunal Inland Revenue, Peshawar on July 29, 2024, involving an amount of Rs. 2 million. The case is currently pending adjudication, and based on the opinion of the Organization's tax consulta management believes that the outcome of this appeal will be favorable to the Organization. Hence no provision h been recorded in this regard.

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Tax Year 2020

A show cause notice dated March 9, 2021, was issued under section 161(1A) of the Income Tax Ordinance, 20(relating to alleged default in withholding of tax against payments of Rs. 1.010 billion made under the head of dire taxes. While no specific default has been established through this notice, based on the opinion of the Organization's t consultant, management expects a favorable outcome in this matter. Hence no provision has been recorded in th regard.

Tax Year 2021

The Organization received a reconciliation notice dated December 15, 2021, under rule 44(4) of Income Tax Rule 2002. The Organization has submitted responses to this notice, with the most recent response submitted on April 1 2023. While no further correspondence has been received from the tax authorities to date, based on the opinion of th Organization's tax consultant, management expects a favorable outcome in this matter. Hence no provision has bee recorded in this regard.

(ii) **Sales tax**

Tax Period 2009-13

Remand back proceedings were initiated by the Deputy Commissioner IR (Audit-IV) Corporate Zone, RTO Peshawa following the Appellate Tribunal Inland Revenue's order dated March 26, 2021. These proceedings were conclude through an order in remand dated June 28, 2022, involving an amount of Rs. 1.426 billion along with a penalty of Rs 71.33 million. The Organization appealed this decision to the Commissioner IR (Appeals), Peshawar, who decided i favor of the tax department through an order dated January 10, 2023. Subsequently, the Organization filed a furthe appeal before the Appellate Tribunal Inland Revenue, Peshawar, which is currently pending adjudication. The Appellat Tribunal has granted a stay order on July 3, 2023, which remains effective until the disposal of the appeal. Based on th opinion of the Organization's tax consultant, management believes that the outcome of this appeal will be favorable t the Organization.

Tax Period 2013-16

The Deputy Commissioner IR (Unit-13), Corporate Zone, RTO Peshawar issued a show cause notice dated June 9 2017, under section 11(2) of the Sales Tax Act, 1990, concerning non-charging of sales tax on supplies made i FATA/PATA regions. An order was subsequently issued on January 2, 2018, involving an amount of Rs. 1.519 billion The Organization appealed this decision to the Commissioner IR (Appeals), who decided against the Organizatio through an order dated April 24, 2018. The Organization then filed a further appeal before the Appellate Tribunal Inlan Revenue, which decided in favor of the Organization on June 21, 2019, declaring that the Deputy Commissioner IR di not have the jurisdiction to issue the initial notice. While the Tribunal's decision allowed the tax department to initiat fresh proceedings under section 11 of the Act through an authorized officer, no further correspondence has beer received from the tax authorities to date.

Tax Period 2016-17

The Deputy Commissioner IR (Unit-13), Corporate Zone, RTO Peshawar issued a show cause notice on August 07 2018 under section 11(2) of the Sales Tax Act, 1990 concerning non-charging of sales tax against taxable supplies made in FATA and PATA, involving an amount of Rs. 402 million. The case was initially decided against PEDO through order dated December 03, 2018. Subsequently, PEDO filed an appeal before Commissioner IR (Appeals), which was decided against the taxpayer on March 18, 2019. The matter was then taken to Appellate Tribunal IR, which decided in favor of PEDO on September 24, 2019 on jurisdictional grounds, while noting that the department retains the right to reassign jurisdiction through proper legal channels. No further correspondence has been received from the tax department to date.

Tax Period 2017-19

The Deputy Commissioner IR (Unit-13), Corporate Zone, RTO Peshawar issued a show cause notice on October 08 2020 under section 11(2) of the Sales Tax Act, 1990 concerning non-charging of sales tax against taxable supplies made in FATA and PATA, involving an amount of Rs. 775 million. The case was initially decided against PEDO through order dated November 25, 2020. Subsequently, PEDO filed an appeal before Commissioner IR (Appeals), who remanded the case back for reconsideration on April 21, 2021. No further correspondence has been received from the tax department to date.

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(iii) **Khyber Pakhtunkhwa Revenue Authority (KPRA)**
TAX PERIOD JUN-2020 TO MAR-2024

The Khyber Pakhtunkhwa Revenue Authority (KPRA) issued a notice requesting records regarding non-payment sales tax. Following submission of relevant documentation, KPRA issued an order on May 30, 2024, alleging a default Rs. 33.81 million under Section 14(1) & (2) of the Khyber Pakhtunkhwa Sales Tax on Services Act, 2022. PEC submitted a detailed response on June 25, 2024. While no further correspondence has been received from KPR based on the tax consultant's assessment, a favorable outcome is anticipated in this matter.

(iii) **Power purchase from PESCO - Reshun Hydropower Station**

Following the floods in July 2015, the 4.2 MW Reshun hydropower station in Upper Chitral supplying electricity to th local population became inoperable due to significant damage. To address the power shortage, electricity fro WAPDA's Golen Gol hydropower station,was supplied to Upper Chitral through PEDO's transmission and distributi system without a formal arrangement until January 2023, when a Memorandum of Understanding was execute between PEDO, PESCO, and the Elders of Chitral.

PESCO has claimed an amount of Rs. 3,124,956,923 from PEDO for electricity supplied during the period from Janua 2018 to January 2023, calculated at bulk customer tariff C-2b(29)T. This claim is presently subject to adjudication by High-Powered Committee to be notified by the Ministry of Energy (Power Division), Government of Pakistan, acknowledged by PESCO through their communication dated June 26, 2023. Management has not recorded th provision in this regard as the matter is under discussion and management based on the facts of the case is of the vie that there are no adverse consequences for the Organization.

	2022 Rupees	2021 Rupees
COMMITMENTS		
Commitments under contracts for hydel and solar projects	**155,591,536,218**	**175,096,442,53**

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		Note	2022 Rupees	2021 Rupees
27	**REVENUE FROM SALE OF ELECTRICITY**			
	Sale of electricity		**5,202,231,169**	**1,912,892,14**
	Location wise break of sale of electricity			
	Malakand III			
	-Principal amount		1,375,542,885	1,365,311,06
	-Late payment surcharge (LPS)	27.1	344,080,072	48,691,87
			1,719,622,957	**1,414,002,93**
	Reshun	27.2	130,370,728	122,505,12
	Pehur-net of taxes			
	Revenue for the year	27.3	357,901,811	369,773,942
	Price Differential claim (PDC)	27.4	1,474,973,069	-
			1,832,874,880	**369,773,942**
	Shishi		7,033,230	6,610,149
	Machai		83,396,421	-
	Daral Khwar		1,358,881,741	-
	Ranolia		70,051,212	-
			5,202,231,169	**1,912,892,146**

27.1 This includes Rs. 258,211,957 pertaining to the late payment surcharge of previous years, the adjustment of which is made by the management in current year upon the reconciliation achieved with CPPA.

27.2 4.2 MW Reshun Hydropower Station, supplying electricity to local population of Upper Chitral, was heavily affected from the flood in the year 2015, and became inoperable due to significant damage. To address the power shortage, electricity from WAPDA's Golen Gol hydropower station is supplied to Upper Chitral through transmission and distribution system of PEDO and billed to customers at the slab rates notified by PEDO.

27.3 This includes Rs. 332,875,394 (2021: Rs. 344,958,714) on account of sale of electricity to Industries through wheeling agreements with Industries while remaining Rs. 25,026,417(2021: Rs. 24,815,228) is on account of sale of surplus electricity to CPPA under the PPA. These amounts are net of the taxes and duty of amount Rs. 68,130,820. (2021: Rs. 79,651,715).

27.4 The above amount represents the Price Differential Claim (PDC) net of taxes and duties amounting to Rs. 265,495,152. The PDC has resulted from the sale of electricity to PESCO at a rate of Rs. 1 per kWh as compared to approved tariff by NEPRA of Rs. 4.018 per kWh after conclusion of Power Purchase Agreement (PPA) with the Central Power Purchasing Agency (CPPA-G) on May 14, 2019. Initially, the PDC was not recognized as it was unclear whether the differential would be settled by PESCO or CPPA-G. Based on the determination by NEPRA for settlement of PDC by CPPA-G instead of PESCO, the PDC has been recognized in these financial statements.

28	**OTHER INCOME**		
	Head office service charges	65,431,796	67,392,461
	Miscellaneous	79,054,908	13,921,997
	Interest income	22,769,349	7,325,166
		167,256,053	**88,639,624**

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		Note	2022 Rupees	2021 Rupees
29	**OPERATING AND MAINTAINENCE COST**			
	Salaries, allowance and other benefits		352,645,835	279,492,55
	Director's remuneration- Meeting fee		342,000	2,200,00
	Plant operations and maintenance		225,653,602	289,418,21
	Stock and spares consumed		53,085,377	-
	Transport and traveling		9,920,699	6,898,88
	Utilities		37,773,989	13,105,71
	Postage, telephone and internet		2,190,560	2,792,12
	Printing & Stationery		3,332,619	1,942,92
	Advertisement charges		4,799,770	4,324,12
	Repair and maintenance		14,523,911	8,787,35
	Annual license fee		3,654,908	3,806,38
	Legal and professional fee		7,373,970	4,338,26
	Insurance		79,075,486	38,365,37
	Water usage charges		93,591,182	88,080,25
	Audit fee		1,770,000	1,770,00
	Provision for gratuity		28,114,937	-
	Petroleum, oil and lubricants		13,562,504	9,656,81
	Training		2,248,008	-
	Amortization	7	261,207	169,38
	Depreciation	5	893,731,119	200,772,55
	Security expenses		38,219,891	13,644,79
	Bank charges		135,083	-
	Contractors payments		91,355,171	26,342,83
	Consultant Payments		-	4,434,50
	Newspapers and periodicals		249,911	242,65
	Write off against CWIP	29.1	9,688,052	-
	Miscellaneous		11,476,273	8,744,33
			1,978,776,064	**1,009,330,05**

29.1 Upon completion and handover of the Project "Solar Electrification of 4,000 Masajid in Khyber Pakhtunkhwa", CWIP has been netted off against the related Specific Grant as disclosed in note 6.3 while the remaining amount of Capital Work-in-Progress (CWIP) for the Project has been written-off.

30	**EXCHANGE (LOSS)/ GAIN**	23.1	**(395,010,804)**	**84,960,83**
31	**CASH AND CASH EQUIVALENTS**			
	Cash at bank	16	**3,330,445,735**	**1,656,438,02**

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32 EVENTS OCCURING AFTER THE REPORTING PERIOD

Flood affected projects

Following projects of the Organization have been affected by the devastating floods across the Khyber Pakhtunkhwa in Augu 2022. Management of the PEDO has planned for the rehabilitations of the said projects and also provisionally determined th rehabilitation cost as mentioned below.

Project/ Hyrdropower stations	Total Rehabilitation cost (Rs. in million)
Access of clean energy (Mini micro power stations)	738.30
Solarization of 8,000 schools and 187 Basic health units	16.15
Daral Khwar Hydropower project	2,263.20
Rehabilitation and restoration of Ranolia Hydropower project	8,553.70
Damages to the transmission line of Reshun Hydropower complex	10.58
Total	**11,581.93**

The financial effects of these transactions have not been recognized at June 30, 2022

33 RELATED PARTY TRANSACTIONS

The Organization in the normal course of business carries out transactions with related parties which comprise of Government-owned Enterprises and Government of KPK. The details of material related party transactions is provided below:

	2022 Rupees	2021 Rupees
Government of KPK		
Contribution in capital (Equity)	11,378,431,348	8,084,429,119
Funds received for specific grant	2,428,392,581	1,341,706,688
Funds repaid to government of KPK	(1,609,401,738)	(2,710,000,000)
Specific grant repayments	(1,500,000,000)	-

Transactions with PESCO and CPPA-G are disclosed in notes to the financial statements.

34 FINANCIAL RISK MANAGEMENT AND OBJECTIVES

The overall risk management is carried out by the finance department under the oversight of the Executive Committee (EC) in line with the policies approved by the EC.

34.1 Financial instruments by category

	2022. Rupees	2021 Rupees
Financial assets: At amortized cost		
Long term investment	2,036,228	4,072,455
Contract asset	89,454,780	-
Long term secuirty deposits	1,200,000	1,200,000
Trade receivables	4,825,885,862	1,366,731,147
Security deposits	190,000	320,000
Short term investments	85,905,636	71,273,686
Cash and Bank balances	3,329,506,423	1,655,702,022
Financial liabilities: At amortized cost		
Long term loans	315,853,821	39,643,359
Lease liabilities	19,242,715	22,166,810
Retention money	5,368,444,797	4,514,288,368
Creditors, accrued and other liabilities	386,492,474	367,796,079

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Jabori, HPC

34.2 Risk management policies

The Organization's objective in managing risks is the creation and protection of stake holders' value. Risk is inherent in th organization's activities, but it is managed through a process of ongoing identification, measurement and monitoring, subject to risl limits and other controls. The process of risk management is critical to the organization's continuing to meet their objectives. Th Organization is exposed to credit risk, liquidity risk and market risk (which includes interest rate risk and price risk) arising from th financial instruments it holds.

34.3 Credit risk

Credit risk represents the accounting loss that would be recognized at the reporting date if counter parties fail to perform as contracted and arises principally from receivables. The Organization's policy is to enter into contracts with reputable counter parties in accordance with the internal guidelines and regulator requirements.

Exposure to credit risk

The carrying amounts of the financial assets represent the maximum credit exposures before any credit enhancements. The carrying amounts of financial assets exposed to credit risk at reporting date are as under:

	2022 Rupees	2021 Rupees
Counter parties without external credit rating		
Contract asset	89,454,780	-
Long term investment	2,036,228	4,072,455
Long term security deposit	1,200,000	1,200,000
	3,236,228	**5,272,455**

The Organization has taken a low credit risk over the trade receivables from the Government owned entities.

			Rating	2022 Rupees	2021 Rupees
Short term investments					
Counter party with external credit rating			A-1	85,905,636	71,273,886
	Short term	**Long term**	**Agency**	**2022 Rupees**	**2021 Rupees**
Bank balances					
Counterparties with external credit rating					
Bank of Khyber	A-1	A	PACRA	89,623,826	1,094,846,918
Sindh bank limited	A-1	A+	VIS	5,453,196	5,453,196
Allied Bank limited	A-1+	AAA	PACRA	3,225,596,137	555,573,908
National Bank of Pakistan	A-1+	AAA		8,833,264	-
				3,329,506,423	**1,655,874,022**

Allowance on ECL for banks is negligible since all the banks have highest credit quality with lowest expectation of default which indicates exceptionally strong capacity for timely payment of financial commitments.

Concentration of credit risk

Concentration of credit risk arises when a number of counter parties are engaged in similar business activities or have similar economic features that would cause their abilities to meet contractual obligation to be similarly affected by the changes in economic, political or other conditions. Due to the structure of the overall industry, the Organization has concentration of credit risk on account of receivables from CPPA-G which represents the amounts ultimately receivable from the Government of Pakistan.

34.4 Liquidity risk

Liquidity risk is the risk that the Organization will encounter difficulty in meeting its financial obligations as they fall due. The Organization's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stress conditions, without incurring unacceptable losses or risking damage to the Organization's reputation. The following are the contractual maturities of financial liabilities, including interest payments and excluding the impact of netting agreements, if any:

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	Carrying Amount	Contractual Cash Flows	Upto one year	From one to five years	More than five years
			Rupees		
2022					
Creditors, accrued and other liabilities	386,492,474	386,492,474	386,492,474	-	
Retention money	5,368,444,797	5,368,444,797	-	5,368,444,797	-
Long term loans	315,853,821	315,853,821	-	-	315,853,821
Lease liabilities	19,242,715	22,744,480	5,456,000	17,288,480	-
	6,090,033,807	**6,093,535,572**	**391,948,474**	**5,385,733,277**	**315,853,821**
2021					
Creditors, accrued and other liabilities	367,796,079	367,796,079	367,796,079	-	-
Retention money	4,514,288,368	4,514,288,368	-	4,514,288,368	
Long term loans	39,643,359	39,643,359	-	-	39,643,359
Lease liabilities	22,166,810	27,704,480	4,960,000	22,744,480	-
	4,943,894,616	**4,949,432,286**	**372,756,079**	**4,537,032,848**	**39,643,359**

34.5 Market risk

Market risk is the risk that changes in market price, such as foreign exchange rates, interest rates and equity prices will effect the Organization's income or the value of its holdings of financial instruments.

a) Currency risk

Currency risk is the risk that the value of the financial instruments will fluctuate due to changes in foreign exchange rates. Currently Organization is not exposed to currency risk as it does not hold any foreign currency financial assets or liabilities.

b) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Majority of the interest rate exposure arises from borrowings and investments. At the balance sheet date the Organization is not exposed to any interest rate risk as it holds investments at fixed interest rate.

35 FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Underlying the definition of fair value is the presumption that the Organization is a going concern and there is no intention or requirement to curtail materially the scale of its operations or to undertake a transaction on adverse terms.

A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis.

IFRS 13 'Fair Value Measurement' requires the Organization to classify fair value measurements and fair value hierarchy that reflects the significance of the inputs used in making the measurements of fair value hierarchy has the following levels:

Level 1: quoted prices (unadjusted) in active markets for identical assets and liabilities

Level 2: input other than quoted prices included with in Level 1 that are observable for assets and liability either directly (i.e. as prices) or indirectly (i.e. derived from prices)

Level 3: Inputs for the assets or liability that are not based on observable market data (unobservable inputs).

Transfers between levels of the fair value hierarchy are recognized at the end of the reporting period during which the change the occurred.

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	Level 1	Level 2	Level 3
	RUPEES	RUPEES	RUPEES
30-Jun-22			
Assets carried at fair value	-	-	-
30-Jun-21			
Assets carried at fair value	-	-	-

The carrying values of financial assets reflected in financial statements approximate their respective fair values.

36 CAPITAL MANAGEMENT

The Organization is dependent on the funding from KPK government, and revenue generated from the operational projects to fun the capital and operational expenditure. In addition to this, the Organizations also receives funds from the Asia Development Ban and World Bank for the projects and financing is not significant to the overall capital structure of the Organization.

37 DATE OF AUTHORIZATION FOR ISSUE

These financial statements were authorized for issue by the Executive Committee of the Organization in their meeting held o

17 FEB 2023

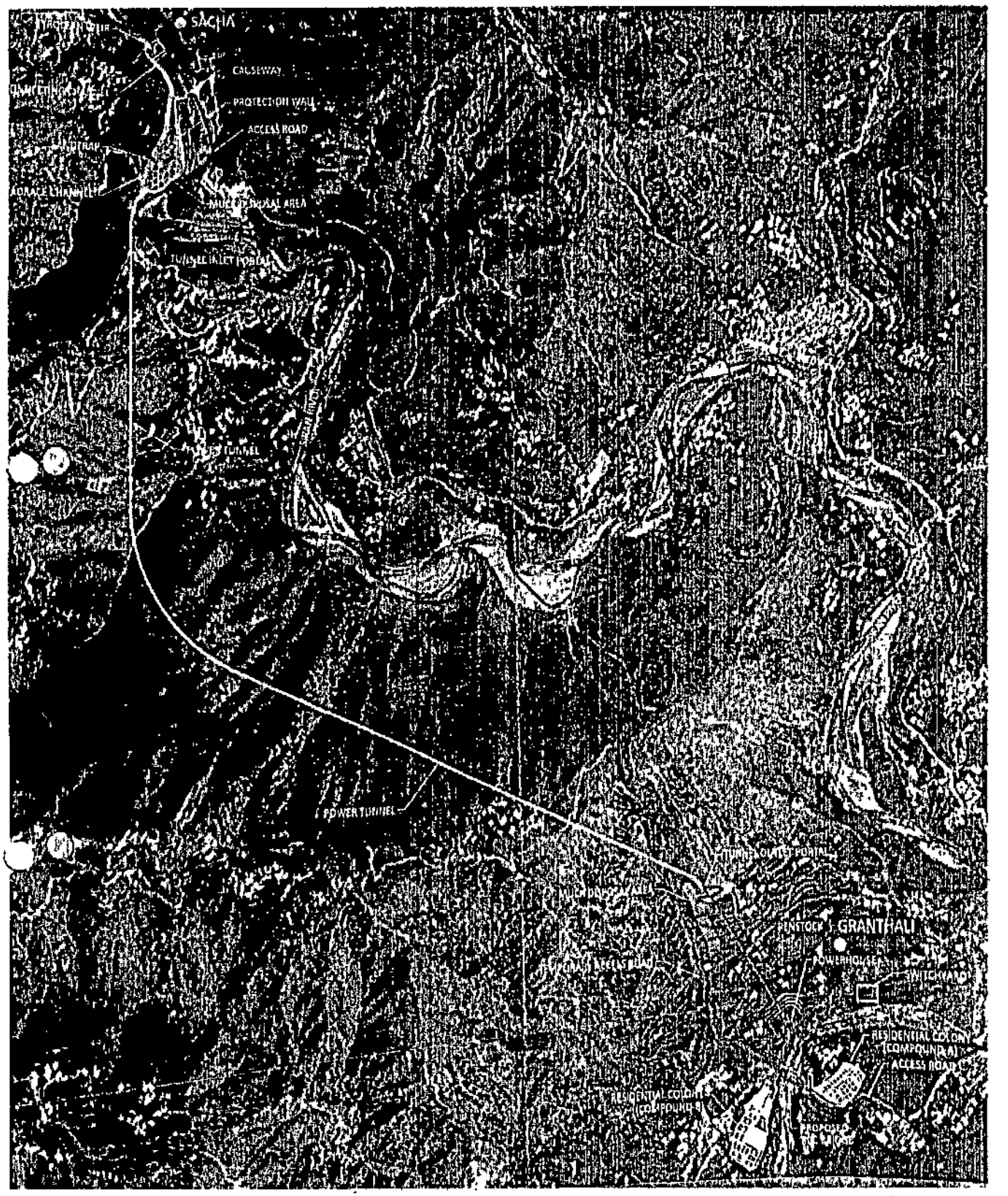
CHIEF EXECUTIVE OFFICER

DIRECTOR FINANCE

verified
Resident Engineer
O&M Jabori, HPC

Siran River
Jaborl Hydropower Project
Siran River
100 m
3D

228


SACHA
CAUSEWAY
PROTECTION WALL
ACCESS ROAD
POWER TUNNEL
GRANTHALI
POWERHOUSE
SWITCHYARD
RESIDENTIAL COLONY
(COMPOUND A)
ACCESS ROAD

CTC.

Engr. ANWAR UL HAQUE

Chief Executive Officer (CEO) – Pakhtunkhwa Energy Development Organization (PEDO)
Energy & Power Department, Government of Khyber Pakhtunkhwa

Senior Hydropower Executive | Former GM/PD Dasu HPP (4320 MW) | Specialist in Mega Infrastructure & Renewable Energy Leadership | Expertise in World Bank–Funded Mega Projects

Email: anwarpmo@gmail.com
Mobile: 0300 5858348 / 0334 5858348 / 0342 9017372

EXECUTIVE SUMMARY

A distinguished hydropower and infrastructure leader with over 37 years of progressive experience in planning, executing, and managing Pakistan's largest and most technically complex water and energy projects. Currently serving as Chief Executive Officer (CEO) of Pakhtunkhwa Energy Development Organization (PEDO), Energy & Power Department, Government of Khyber Pakhtunkhwa, providing strategic leadership for provincial hydropower and renewable energy development.

Previously served as General Manager and Project Director of the 4320 MW Dasu Hydropower Project, one of the flagship World Bank–funded mega infrastructure initiatives in the region. Recognized for stabilizing high-risk, politically and socially sensitive environments, delivering large-scale civil works under strict donor compliance frameworks, and leading multidisciplinary teams through complex geological, contractual, environmental, and resettlement challenges.

Brings proven expertise in executive governance, mega-project execution, World Bank procurement systems, FIDIC-based contract administration, commercial oversight, institutional coordination, and stakeholder engagement at federal, provincial, and international levels. Known for disciplined execution, strategic decision-making, crisis management capability, and the ability to build trust among government institutions, development partners, and local communities.

CORE EXECUTIVE COMPETENCIES

CEO-Level Leadership

- Vision setting, organizational leadership, and strategic execution
- Governance, compliance, and institutional stewardship
- High-stakes decision-making and crisis management
- Public-sector engagement, policy alignment, and multi-agency coordination
- Board engagement, donor negotiations, and executive reporting
- Organizational restructuring, culture building, and talent development

Hydropower & Mega-Project Expertise

- End-to-end development of large hydropower projects (feasibility to commissioning)
- Dam engineering, river diversion, underground works & hydraulic structures
- World Bank procurement, safeguard compliance, and audit readiness
- Environmental and social impact mitigation, resettlement frameworks, and community engagement

• Stakeholder negotiations including tribal jirgas, provincial governments, and district administrations
• Risk assessment for geology, hydrology, construction sequencing, and contractor performance

Commercial & Contract Management

• EPC, consultancy, and O&M contract administration (FIDIC-based)
• Claims, variation orders, extension-of-time evaluations & dispute resolution
• Procurement strategy, bid evaluation, and contract award governance
• Performance monitoring, commercial forecasting, and financial compliance
• Interface management among international contractors, consultants, and government entities

KEY ACHIEVEMENTS

• Successfully led the execution of the 4320 MW Dasu Hydropower Project, one of Pakistan's most technically challenging power projects.
• Stabilized project operations during high-pressure resettlement and security challenges through direct engagement with communities and local Jirgas.
• Ensured compliance with World Bank procurement and safeguard frameworks across all major works and consultancy contracts.
• Delivered major progress milestones under strict hydrological, geological, and environmental constraints.
• Strengthened coordination between WAPDA, Ministry of Water Resources, provincial governments, district administrations, and development partners.
• Oversaw the planning and construction of resettlement villages and community development works under Diamer Basha Dam Project.
• Managed large-scale O&M operations for Ghazi Barotha Hydropower Project, one of the most sensitive water-channel structures in the country.

PROFESSIONAL EXPERIENCE

Chief Executive Officer (CEO)

Pakhtunkhwa Energy Development Organization (PEDO)
Energy & Power Department, Government of Khyber Pakhtunkhwa
29 December 2025 – Present

• Serving as Chief Executive Officer of PEDO, leading the province's hydropower and renewable energy development portfolio.
• Providing strategic leadership for planning, execution, and oversight of large hydropower, mini/micro hydel, solar, and other renewable initiatives across Khyber Pakhtunkhwa.
• Steering institutional governance, financial discipline, donor coordination, and executive reporting to the Government of KP.
• Supervising project portfolio management including feasibility approvals, procurement strategy, contract execution, and commissioning oversight.
• Leading engagement with multilateral development partners, regulatory authorities, and provincial/federal stakeholders.
• Driving organizational reforms, performance optimization, and institutional strengthening for sustainable energy growth.
• Ensuring regulatory, environmental, social safeguard, and governance compliance across all PEDO initiatives.

Advisor

Dasu Hydropower Project | World Bank Funded | 4320 MW | RCC Dam 242 m
2024 – December 2025

• Provide high-level advisory support to GM/PD on all project operations, strategic decision-making, and contract execution.
• Guide construction planning, sequencing, and schedule optimization for critical-path works while monitoring progress and construction schedules of different contracts.
• Oversee procurement strategy, contract compliance, variation orders, claims, and time extension matters for major EPC packages.
• Support management of consultancy contracts including construction supervision, M&E, environmental & social safeguards, OHS, and panel of experts.
• Advise on risk mitigation related to geological surprises, contractor performance, and interface management.
• Facilitate coordination with World Bank, Ministry of Water Resources, WAPDA, and district administration of KP government.
• Lead resolution of community grievances, land issues, and resettlement concerns through direct engagement and Jirga participation.

General Manager / Project Director

Dasu Hydropower Project (4320 MW)
World Bank Funded Mega Project
2019 – 2024

• Directed end-to-end project execution covering civil works, hydraulics, dam construction, underground works, power intake systems, and river diversion.
• Led multi-disciplinary teams of engineers, consultants, contractors, and international experts.
• Chaired high-level meetings with World Bank missions, ministries, armed forces, provincial secretariats, and law-enforcement agencies.
• Oversaw risk management for technical, contractual, environmental, social, security, and financial domains.
• Implemented progress monitoring frameworks for all works and ensured compliance with donor reporting requirements.
• Managed compensation, relocation, and social safeguards for affected communities while maintaining project stability.
• Streamlined internal workflows, approvals, and procurement decisions under challenging timelines.

Chief Engineer (Contracts)

Dasu Hydropower Project
2017 – 2019

• Administered major civil and consultancy contracts in line with World Bank procurement and FIDIC principles.
• Evaluated claims, variation orders, and extension-of-time submissions.
• Oversaw monthly invoicing, IPC processing, and financial compliance.
• Coordinated engineering reviews, schedule assessments, and performance benchmarks.

Superintending Engineer (Civil)

Ghazi Barotha Hydropower Project
2016 – 2017

- Led operations and maintenance for one of Pakistan's most sensitive water conveyance systems.
- Supervised structural rehabilitation, instrumentation performance, and civil works.
- Managed tendering, estimates, contract approvals, and execution of new works.

Director (Coordination)

Diamer Basha Dam Project
2014 – 2017

- Coordinated with GB and KP administrations on land acquisition, compensation, and resettlement matters.
- Oversaw construction of model villages for affected populations.
- Ensured transparent valuation of built-up property and compliance with approved frameworks.
- Facilitated communication between WAPDA, provincial governments, and local communities.

Earlier Career Progression

- Additional Director (Civil) – Satpara Dam Project (2012 – 2014)
- Deputy Director – Khan Khwar Hydropower Project (72 MW) (2009 – 2012)
- Senior Engineer (Monitoring) – Ghazi Barotha Hydropower Project (2005 – 2009)
- Sub Divisional Officer (Civil) – Multiple WAPDA / NTDC Assignments (1988 – 2005)
- Assistant Director (Contracts) – O/o GM & PD (Water) North (1987 – 1988)

EDUCATION

- MSc Water Resources & Irrigation Engineering – UET Taxila
- BSc Civil Engineering – UET Peshawar

PROFESSIONAL TRAINING

- Technical Training (Hydropower), WTTI Tarbela – 6 months
- Basic Management Course – 1st Position
- Hydraulics & Hydraulic Structures – 2nd Position
- Senior, Middle & Project Management Courses – WASC Islamabad

PEDO APPLICATION DATA FORM

Pakhtunkhwa Energy Development Organization (PEDO)
Energy & Power Department Government Of Khyber Pakhtunkhwa

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A. Eligibility Criteria:

Is your Qualification, Experience & Age according to the required criteria for the post?
(If your reply is "Yes" to A only then please proceed further. Otherwise you are not eligible to apply)

☑ Yes ☐ No



B. Posts & Projects Related:

1. Post Applied for: MEMBER FINANCE
2. Project Name: PEDO

C. Personal Information (Use capital letters & Leave spaces between words)

01. Name In Full: HAMOOD-UR-RAHMAN
02. Father's Name: ZAKIR-UR-RAHMAN
03. Candidate CNIC#: 37405-9835743-5
Write your own CNIC No. Or B Form No.
04. Gender: ☑ Male ☐ Female
05. Date of Birth: Write your Correct Date of Birth otherwise you will be rejected D D M M Y Y Y Y: 03-03-1972
06. Postal Address: H. No. 343-B, Street-22, Gulzar-e-Quaid
All correspondence will be made on this address though courier service or ordinary postal service.
City: Rawalpindi District: Rawal Pindi
07. Phone No: (OFF) City Code - Phone No. (RES.) 051-5707706 (Mobile) 0308-5207658
08. Are you a Government Servant? In case of Yes, please attach NOC ☐ Yes ☑ No
09. Driving License? ☑ Yes ☐ No
10. Are you a Disabled Person? If yes, please attach Disability Certificate ☐ Yes ☑ No

11. District & Province of Domicile:

Province: PUNJAB

District of Domicile RAWALPINDI

D. Academic/ Educational Information:

Note: 1. Write exact degree name & major subject mention in certificate / transcript.
2. Candidate should convert their grades into marks. (O Level / A Level or any other degree having grade).
3.Write result declaration date in year of passing.

Qualification / Degree Level	Degree Name & Title	Specialization / Major Subject	Year of Passing	Obtained Marks / CGPA	Total Marks / CGPA	Division / Grade	Board / University / Institute
Matric (10 Years)	Metric	Science	1988	583	850	1st	Rawalpindi Board
Intermediate / DAE (12 Years)	D.COM	Commerce	1990	422	750	2nd	Punjab Board of Technical Education
Bachelor (14 Years)	☐ B.A ☐ B.Sc ☑ Other: B-COM	Advance Accounting	1991			2nd	Punjab University
Bachelor Hons / Master (16 Years)	☐ M.A ☐ M.Sc ☑ Other: B.COM	Cost Accounting	1993	729	1300	2nd	Punjab University
MS / M.Phil (18 Years)	☐ MS ☐ M.Phil ACMA, FCMA	Taxation Mangement	2001	—	—	—	ICMAP
Ph.D (20 Years)	ACCA, FPFA	Auditing	2001	—	—	—	PIPFA

E. Employment Record (Starting with latest Employment)

Sr#	Organization / Employer Name	Job Title	Job Duration (Write only Month & Year) From	To
01	Utility Stores Corporation	CFO	01/02/2015	Date
02	NCHD	Director Finance	01/09/2009	31/01/2015
03	Hashwani Hotels Limited	Director Finance	01/02/2008	31/08/2009
04	Pakistan Cement Company	Accounting Manager	01/04/2007	31/01/2008
05	Pak Television Channel	General Manager Finance	01/12/2003	31/03/2007
06	Prime Entertainment	Manager Finance	01/11/2001	31/12/2003
07	Askari Cement	Asst. Manager Finance	01/12/1998	30/11/2001
08	Deloitte Touche (KM HR)	Auditor	01/02/1993	30/09/1998

	Days	Months	Years
09. Total Job Experience as on closing date of application:	09	10	27
10. Total Relevant Job Experience as on closing date of application:	09	01	19
11. Total Specific Job Experience as on closing date of application: (If required in advertisement for applied posts)	09	01	19

F. Declaration/Undertaking By The Applicant:

I Hamood-Ur-Rahman d/s/w of Zakir-Ur-Rahman do hereby solemnly declare and affirm that I have read and understood the instructions and conditions for applying to the post. All the given information is true and correct. Any untrue, false or forged, mis-representation of information may lead to the cancellation of my candidature for the subject position at any stage and even after the appointment.

Date: 8-12-2020 Thumb Impression _____ Candidate's Signature _____ 8/12/2020

HAMOOD-UR-RAHMAN, FCMA, FPFA

343-B, Street-22, Gulzar-e-Quaid, Rawalpindi, Pakistan.
Res: +92-51-5707706, Cell: +92-300-5138419, +92-308-5207658
Email : hamoodusmani@hotmail.com, Skype ID: hamoodusmani



PROFILE & CAREER OBJECTIVES

- A seasoned professional with experience in Finance, Accounting, Audit, Taxation & Business Management.
- Improving processes and controlling costs with the end objective to improve customer service.
- To apply professional knowledge to challenging problems for organizational growth & development.
- Energetic, dedicated, hardworking and having strong sense of responsibilities.
- Self-motivated to timely achieve goals. Expertise includes:
  - Self-starter who takes initiatives
  - Strong Financial Analytical Skills
  - Strategic Planner / Implementer
  - Budgeting / Forecasting
  - Organizational Restructuring
  - Result Oriented Team Builder
  - Working Capital / Funds Management
  - Corporate & Taxation Planning
  - ERP Business Application
  - Internal & External Auditing
  - Internal Controls & Reporting Systems
  - Effective Communicator

QUALIFICATION

• F. C. M. A.	Fellow Cost & Management Accountant	2006
• F. P. F. A.	Fellow Public Finance Accountant	2006
• A. C. M. A.	Associate Cost & Management Accountant	2001
• A. P. F. A.	Associate Public Finance Accountant	2001
• C. A.	Chartered Accountancy (Intermediate)	2001
• B. COM	Bachelor of Commerce	1993

COMPUTER SKILLS

- MS Word / Excel / Power Point
- FICS, Accsys & Stsys
- Peach Tree & Quick Books
- Oracle Financial & Basics of SAP

PROFESSIONAL WORK EXPERIENCE — *27 Years* — *(19 Years Post Qualification)*

UTILITY STORES CORPORATION OF PAKISTAN (PVT) LIMITED (USC) *(Feb-2015 to Present)*

USC is the largest retail chain organization operating 5,000 stores in 9 Zones, 65 Regions and over 14,000 employees across the Country. USC is 100% owned by the Government of Pakistan having annual turnover around Rs. 100 billion.

CHIEF FINANCIAL OFFICER (CFO)

- Supervising the team of 500 members of Finance & Accounts Department all over the country.
- Looking after all the Financial Management, Accounts, Corporate, External Audit. Taxation matters of the organization.
- Implementation of strong internal controls systems.
- Preparation of annual budget according to business plan & presenting the same to the Board of Directors (BOD).
- Finalization of monthly, quarterly and annual audited financial statements and presenting the same to BOD.

NATIONAL COMMISSION FOR HUMAN DEVELOPMENT (NCHD) *(Sep-2009 to Jan-2015)*

NCHD is an autonomous body having 150 offices & staff strength of over 26,000 employees all over the country and working for Education, Adult Literacy, Health, Capacity Development, Volunteerism, Computer Literacy and to achieve Millennium Development Goals (MDGs) and EFA Goals set by United Nations.

DIRECTOR FINANCE (Head of Finance & Accounts Department)

- Supervision the team of 300 employees of Finance Department all over the country.
- Handled all matters related to Finance, Accounts, Internal & External Audit, Taxation & PF of the organization.
- Development of oracle-based software related to GL, Payroll and budget modules.
- Liaison with Donors, Federal, Provincial and District government.

HASHWANI HOTELS LIMITED (HHL) *(Feb-2006 to Aug-2009)*

An HASHOO Group Company. Owners and operators of MARRIOTT HOTELS in Pakistan.

DIRECTOR FINANCE

- Worked for development of residential & commercial Real Estate Project named "Pearl City" & 5 Star Hotel in Multan.
- Finalization of accounts, preparation of financial statements and different types of management reports.
- Handled all matters related to Finance, Accounts, Corporate, Audit and Taxation of the project.
- Development of Real Estate Management Software.
- Implementation of strong internal controls systems.

PAKISTAN CEMENT COMPANY LIMITED (PCCL) *(Apr-2007 to Jan-2008)*

An ORASCOM Construction Group Company

ACCOUNTING MANAGER

- Directly reported to Chief Financial Officer and supervised the staff
- Handled all the matters related to Accounts Payable, Accounts Receivable, Fixed Assets, Taxation and Management Reporting sections of the Company
- Implementation of strong internal control systems to safe guard the assets of the Company
- Development and preparation of different types of Management Reports in ERP environment.

PAK TELEVISION CHANNEL INC. USA *(Dec-2003 to Mar-2007)*

A well-known T.V Channel ***"Prime Television"*** operating in Europe, North America covering entire USA & Canada.

General Manager Finance & Accounts / Company Secretary
(Head of Finance & Accounts Department)

As head of group finance department I have also supervised the following companies / project:

- Total Information & Entertainment Systems (Pvt) Ltd. (Media Company)
- ACCU Traders (Pvt) Ltd. (Online Trading Company)
- Innovative Business Solutions (Pvt) Ltd. (General Order Supplier)
- Media Expert (Pvt) Ltd. (Media Marketing Company)
- Jeet Hi Jeet Lottery Scheme (Joint venture with Pakistan Sports Board)

Job description as Head of Finance & Accounts Department includes but not limited to:

- Directly reported to Chief Executive and Board of Directors of the Company
- Supervised staff and looked after all the Financial, Accounting, Taxation & Corporate matters of the entire group
- Liaison with Banks, Legal Advisor, Tax Authorities, Auditors, Customers, Modarba, Leasing & Insurance Companies

I have also worked as **"Company Secretary"** of the Group (Five Companies) and responsible for preparation and filing of all corporate returns with CRO, holding of AGM, EGM, and BOD Meetings, preparation of minutes of the meetings and board resolutions, preparation and filing of share transfers documents.

PRIME ENTERTAINMENT (PRIVATE) LIMITED *(Nov-2001 to Dec-2003)*

A well-known T.V Channel of the world operating in Pakistan along with 29 Countries of Asia.

Manager Finance & Accounts / Company Secretary

- Developed & implemented strong internal controls in liaison with MIS Department
- Scrutinized & analyzed monthly operating results (MOR), break even & variance analysis
- Prepared & analyzed periodic & annual accounts in accordance with IAS & GAAP
- Managed loans & suppliers credit financing (Foreign) for working capital & investment
- Capital structure management and cash flow forecasting
- Planned, controlled & analyzed budgets & interpreted the variances
- Worked with Income Tax, Sales Tax, EOBI, Social Security Departments
- Acted as Company Secretary and prepared corporate tax returns and board resolutions

ASKARI CEMENT *(Dec-1998 to Nov-2001)*

A Project of Army Welfare Trust (AWT), which is a well-known industrial group having Multi Billion Projects including all types of Industries with centralize and decentralize systems.

ASST. MANAGER FINANCE & ACCOUNTS

- Prepared final accounts, budgets, cash flows & numerous management reports
- Kept liaison with banks, Internal & external auditors, customers, suppliers, taxation authorities, modaraba, leasing & insurance companies
- Developed strong financial controls at reasonable cost & analyzed production & cost norms
- Worked on payroll, billing, receivables, payables, inventory, fixed assets & GL accounting systems

SCHLUMBERGER SEACO INC. *(Sep-1998 to Dec-1998)*

World leading oil field services providing company.

CONSULTANT

- Prepared income tax and wealth tax returns of all their employees
- Visited numerous oil fields of the company, studied company's accounting & internal control systems

Deloitte Touche Tohmatsu Intl. represented by M/s KMHR **(Feb-1993 to Sep-1998)**

Chartered Accountants

Gained value added professional experience with diversified activities on large scale basis mainly in the fields of Petroleum, Telecommunication, Explosives, Chemicals, Textile, Power, Cement, Steel, Construction, Printing, Health, Education, Food & Beverages, Hospitality, Banking, Trading, Indenting, Printing, NGOs, Trusts, etc.

AUDIT/ACCOUNTS:

Performed the accounting and audits of various manufacturing & other concerns whether commercial or non-profit organizations. As an Audit Senior I was responsible for:-

- Prepared Audit Approach Plan, Planning & Summary Memorandum, Analytical review
- Physical verification & valuation of inventory as well as fixed assets
- Supervised audit staff & reviewed their work
- Maintained financial records (manually & in EDP environment)
- Prepared accounts in compliance with Companies Ordinance, IAS & GAAP

TAXATION / CORPORATE / MANAGEMENT CONSULTANCY:

- Filling of annual & periodic tax & statutory returns of all types of assesses
- Prepared replies of various kinds of notices under the Income, Wealth and Sales Tax Laws
- Done hearings, prepared & filed rectification applications & appeals
- Dealt corporate matters of different companies as per Companies Ordinance, 1984
- Preparation of Memorandum and Articles of Association of Companies and get them registered with CRO

COURSES / SEMINARS

- Attended one week workshop on Auditing Manual of the **Deloitte Touche Tohmatsu International** namely Audit System-2 (As/2) organized by M/s KMHR, Chartered Accountants.
- Attended numerous seminars & workshops organized by ICAP & ICMAP on Decision Making Tools, Code of Corporate Governance, Leadership for Corporate Managers, Companies Ordinance, Income Tax and Sales Tax Ordinance, Pre and Post Budgets, International Accounting & Auditing Standards, Corporate & Financial Reporting Framework, Leasing & Modarabas, Credit Rating, Islamic & Interest Free Banking, Corporate Fraud and Cost Control Techniques.

CERTIFIED DIRECTOR FROM ICAP

I am a "Certified Director" and completed Institute of Chartered Accountants of Pakistan (ICAP) Directors Training Program duly approved by Securities and Exchange Commission of Pakistan (SECP) held at Islamabad in May-2017.

PERSONAL INFORMATION

Father's Name:	Zakir-ur-Rahman
Date & Place of Birth:	03-03-1972, Rawalpindi, Pakistan.
Marital Status:	Married
Languages:	English, Urdu, Punjabi and French
CNIC No:	37405-9835743-5

REFERENCES AVAILABLE ON REQUEST

PEDO APPLICATION DATA FORM

Pakhtunkhwa Energy Development Organization (PEDO)
Energy & Power Department Government Of Khyber Pakhtunkhwa

15



A. Eligibility Criteria:

Is your Qualification, Experience & Age according to the required criteria for the post? ☑ Yes ☐ No

(If your reply is "Yes" to A only then please proceed further. Otherwise you are not eligible to apply)

B. Posts & Projects Related:

1. Post Applied for: MEMBER HYDROPOWER PEDO
2. Project Name: _____

C. Personal Information (Use capital letters & Leave spaces between words)

01. Name In Full: JAVED ARHTAR

02. Father's Name: HABIB-UR-REHMAN

03. Candidate CNIC#: Write your own CNIC No. Or B Form No. 17301-1436286-1

04. Gender: ☑ Male ☐ Female

05. Date of Birth: Write your Correct Date of Birth otherwise you will be rejected D D M M Y Y Y Y: 19-02-1961

06. Postal Address: HOUSE # B-2 WAPDA OFFICER COLONY, BARAL MANGLA CANTT City: MANGLA District: JEHLUM

All correspondence will be made on this address though courier service or ordinary postal service.

07. Phone No: (OFF) City Code - Phone No. 042-99202225 **(RES.)** 0544 639049 **(Mobile)** 0333-9026861 0300 5829734

08. Are you a Government Servant? In case of Yes, please attach NOC ☑ Yes ☐ No

09. Driving License? ☑ Yes ☐ No

10. Are you a Disabled Person? If yes, please attach Disability Certificate ☐ Yes ☑ No

11. District & Province of Domicile:

Province: FATA KPK

District of Domicile BAJAUR AGENCY

D. Academic/ Educational Information:

Note: 1. Write exact degree name & major subject mention in certificate / transcript.
2. Candidate should convert their grades into marks. (O Level / A Level or any other degree having grade).
3.Write result declaration date in year of passing.

Certificate / Degree Level	Degree / Sanad Title	Specialization / Major Subject	Year Passing	Obtained Marks/ CGPA	Total Marks/ CGPA	Division	Board / University / Institute
Matric (10 Years)	SSC	English Mathematics Science	1976	479	900	Grade C	BISE Peshawar
Intermediate / D.A.E (12 / 14 Years)	Intermediate HSSC	Pre-Engg.	1978	526	1000	Grade C	BISE Peshawar
Bachelor (14 Years)	☐ B.A ☐ B.Sc ☐ Other:						
Bachelor (Hons) / Master (16 Years)	☐ M.A ☐ M.Sc ☑ Other: BSc	Mechanical Engg	1984			2nd Division	UET Peshawar
MS / M.Phil (18 Years)	☑ MS ☐ M.Phil	Mechanical	1989				University of Glasgow, Scotland U.K.
PhD							

E. Employment Record (Starting with latest Employment)

Sr#	Organization / Employer Name	Job Title	Job Duration From	Job Duration To
01	WAPDA	JUNIOR ENGINEER	22/05/86	01/02/1988
02	WAPDA	SENIOR ENGINEER	02/02/88	17/08/2011
03	WAPDA	RESIDENT ENGINEER MECH	18/06/2011	31/03/2014
04	WAPDA	CHIEF ENGINEER/PD	01/04/2014	21/07/2015
06	WAPDA	CHIEF ENGINEER MANGLA	22/07/2015	29/11/2016
06a	WAPDA	GENERAL MANAGER/PD	14/11/2016	24/01/2019
07	WAPDA	GENERAL MANAGER HYDEL	25/01/2019	07/12/2019
08	WAPDA	MEMBER POWER	08/12/2019	Till date

	Days	Months	Years
09. Total Job Experience as on closing date of application:			34
10. Total Relevant Job Experience as on closing date of application:			34
11. Total Specific Job Experience as on closing date of application: (If required in advertisement for applied posts)			34

F. Declaration/Undertaking By The Applicant:

I JAVED AKHTAR S/o/D/o of HABIB-UR-REHMAN do hereby solemnly declare and affirm that I have read and understood the instructions and conditions for applying to the post. All the given information is true and correct. Any untrue, false or forged, mis-representation of information may lead to the cancellation of my candidature for the subject position at any stage and even after the appointment.

Date 07-12-2020 Thumb Impression _____ Candidate's Signature

Engr. Javed Akhtar

MEMBER (POWER)

WATER & POWER DEVELOPMENT AUTHORITY

House No B-2, Wapda Officers Colony, BaralMangla Cantt, District Jhelum

E-mail: javedakhtar0261@gmail.com

PERSONAL PROFILE

Date of Birth	:	Feb 19. 1961
Nationality	:	Pakistani
Academic Record	:	**Master Degree in Mechanical Engineering** (1989) Glasgow University Scotland, United Kingdom. **B.Sc. Mechanical Engineering** (1984) University of Engineering & Technology, Peshawar
CNIC	:	17301-1436286-1
Contact	:	+92-3005829739 +92-3339026861

- Presently, Working as Member (Power) having 34-Years of experience in **Operation, Maintenance, Rehabilitation, Construction and Management of Hydro Power Plants, Procurement and Inventory Management, Human Resource Management, Rehabilitation of Old Hydro Power Plants, Negotiation with International Donor Agencies like USAID and WORLD BANK for Project Funding, Coordination with Various Ministries for Rehabilitation and Development Projects, Capacity Development of Organization, Strategic** and **Financial Planning,** together with a **Bachelor Degree in Mechanical Engineering from UET Peshawar and Master Degree in Mechanical Engineering from Glasgow University Scotland, United Kingdom.**
- Performance as **General Manager/ Project Director** with Proven track record by acquiring Priority Land of 740 Acres for commencement and implementation phase of Stage- 1 of Dasu HPP having capacity of 2160 MW.
- Performance as an executive in the capacity of **Chief Engineer Mangla Dam Organization (MDO)** for successful Award of Contract for damaged Mangla Dam Bank at Khaliqabad.
- Performance as an executive in the capacity of **Chief Engineer / Project Director Mangla Refurbishment Project (MRP)** during construction phase of Rehabilitation and Up-Gradation of Mangla Hydro Power Plant to enhance its capacity with improved efficiency alongwith prolong life to meet the growing Power needs of the Country.

- Performance as an executive with a proven track record of quality Maintenance and operation of various Power plants including Tarbela, Mangla and smooth running of small Hydro Power Stations.
- Performance as **Dy.Field Project Manager in SSI-Nespak** during Rehabilitation of old Warsak hydro plant to restore the efficiency and ensure availability with capacity to meet the growing needs of the Electricity demand of the Country.
- Capability and Ability to develop strategic long term planning and communicate effectively with all levels of decision makers.
- **Languages - English, Urdu and Pashto**

PROFESSIONAL EXPERIENCE

Member (Power)
(December 2019- till to date)

- Administrative and Financial management of all formations of Power Wing of WAPDA.
- Supervision of Operation & Maintenance of Hydel Power Stations.
- Supervision of Studies, Planning and Construction Supervision for Rehabilitation / refurbishment / capacity enhancement of existing Hydel Power Houses.
- Implementation of Water Sector Policy
- Management of Local / Foreign Procurement, Contract Management and Administrative of Hydro Power Projects.
- Liaison and Coordination with International Donor Agencies.
- Coordination with National Power Control center (NPCC), PEPCO, NTDC, NEPRA, CPPA(G), IRSA and other Water/Power Sector related entities.
- Coordination with other Wings/Formations of WAPDA to achieve the required goals.
- Management of audit procedures and dealing with audit reports.
- Coordination with Ministry of Water Resources , Ministry of (Power) Energy Division, Planning, Development & Reforms , EAD and any other Ministry in connection with WAPDA Projects .
- Management of Trainings for Capacity Building of WAPDA employees.

General Manager (Hydel)Development
(January 2019- December 2019)

- The General Manager (Hydel) Development is responsible to plan, execute and monitor the Rehabilitation, Refurbishment, Up-gradation and Modernization of the existing Hydroelectric Power stations.
- All the initial planning work and formalities like preparation of Concept papers, Feasibility Report, PC-I, EOI, RFP, Bid Evaluation and Award of Contract.
- To get approvals of competent forum, arrangement of funds, appointment of Consultants, Contractors and Project authorities etc.
- Preparation of Expression of Interest (EOI) Documents
- Evaluation of EOI Documents
- Short listing of the Consultants
- Preparation of Request for Proposal (RFP) Documents
- Evaluation of Technical & Financial Proposals

- Negotiations with the Consultants to resolve the Contractual Issues / matters and obtaining approval from Authority
- Verification of consultants invoices.
- Protocol arrangements of Expatriates visits to Pakistan
- Management of site visits
- Coordination for the security of the Expatriate Staff.
- Review of Fortnightly, Monthly Progress Reports and routine correspondence with the Consultants and Project Authorities

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General Manager/ Project Director Dasu Hydro Power Project

(November 2016- January 2019)

- Land acquisition, Management, Planning, administration and financial control of first Stage of Dasu Hydro Power Project (2160MW) WAPDA and successful commencement of Construction Phase of Project.
- Award of main Civil Contracts of Dasu Hydro Power Project worth about 2 Billion USD.
- Review of E&M-01 bidding documents for Stage 1
- Successful completion of Pre- Qualification of E &M-01 contractors for Six Units of first stage (360 MW each)
- Successful execution of Pre- Bid Conference of E&M Contractors and Review of Bid Evaluation Report.

Chief Engineer Mangla Dam Organization

(July 2015- November 2016)

- Management, Planning, O&M administration and financial control of Mangla Power Station (1000 MW) and five small hydro power stations of various capacities ranging from 1.1 MW to 22 MW.
- Successful filling of Mangla Reservoir up to maximum conservation level (1242 ft.) during 2015 & 2016 alongwith safe mitigation of floods.
- Record generation of Mangla Power Station and small Hydel Station during 2015- 2016
- Successful commissioning of Spillways of 22 MW Rasul Power Station, Punjab
- Successful award of contract for repair of damaged Mangla Dam bank at Khaliqabad after filling of Dam to highest level of EL1242 ft during 2015

Chief Engineer/Project Director Mangla Refurbishment Project

(March 2014- July 2015)

- Kick-off to Mangla Refurbishment & Upgradation Project
- Management, Planning, administration and financial control of Mangla Refurbishment & Upgradation Project (1310 MW) and negotiation with USAID being donor of the project for financial strategy and milestone.
- Successful negotiation for arrangement of advance USD 13 Million for refurbishment and upgradation project from USA
- Technical review of Bidding documents for various components/ milestones for Unit 5 &6
- Completion of Financial Strategy for fast track of Rehabilitation & upgradation of first 6 Units
- Finalization of foreign procurement contract for Inlet Valves Disc/Seals for unit 1-6
- Finalization of foreign contracts for procurement of four numbers 168 MVA transformers
- Review/ Vettingof all Bidding documents and technical Data

Resident Engineer (Mechanical) Tarbela Power Station
(June 2011–March 2014)

- Responsible for O & M Administration of all Mechanical Equipment including Turbines, Governors, Compressors, High Pressure Units, Inlet Valves, Relief Valves, Cranes, Allied accessories,Transport, Store, Workshop of 3478 MW of Tarbela Power Station and O&M of Gandaf tunnel.

Senior Engineer (ITRE) Tarbela Power Station
(March 2004-June 2011)

- Responsible for compilation of all annual procurement demands of Local/ Foreign for Electrical, Protection, Mechanical section and External works.
- Compilation of budgets and releases of Cash foreign exchange and issuance of Local/Foreign purchase orders after approvals.
- Responsible for maintenance and repair of mechanical equipment's of Units 11-14 (432 MW each) Tarbela Power station

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Resident Engineer Dargai Hydro Power Station
(November 2001- March 2004)

- Responsible for O & M Administration and Financial control of 20 MW Dargai Hydro Power Station

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Senior Engineer (ITRE) Warsak Power Station
(October 1999-October2001)

- Responsible for compilation of all annual procurement demands of Local/ Foreign for Electrical, Protection, Mechanical section of Warsak,Dargai, Jabban, Chitral and KurramGhari Power station
- Compilation of budgets and releases of Cash foreign exchange and issuance of Local/Foreign purchase orders after approvals.

Dy. Field Project Manager (SSI- Nespak)
(April 1998- Sept 1999)

- Dy.Field Project Manager in SSI-Nespak during Rehabilitation of old Warsak hydro plant to restore the efficiency, availability and capacity to meet the growing needs of the Electricity demand of the Country.
- Preparation of agendas for meetings, minutes of meetings, vetting of drawings/ documents, comments on various technical proposals and inspection of various rehabilitation equipments at sites

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Senior Engineer (ITRE) Warsak Power Station
(Feb 1995-March 1998)

- Responsible for compilation of all annual procurement demands of Local/ Foreign for Electrical, Protection, Mechanical section of Warsak, Dargai, Jabban, Chitral and KurramGhari Power station
- Compilation of budgets and releases of Cash foreign exchange and issuance of Local/Foreign purchase orders after approvals.

Worked as **ASSISTANT DIRECTOR in Wapda House Lahore** in Procurement Section of Thermal Plants**from September 1994 to January 1995**

Worked as **JUNIOR ENGINEER in TPS Guddu** during commissioning phase of 300 MW Combine Cycle Power Plant**from February 1992 to August 1994**

Worked as **JUNIOR ENGINEER Operation** in 260 MW Steam Turbine Power Station N.G.P.S Multan **from May 1986 to January 1992**

ACHIEVEMENTS

- Award of 740 acres of Priority Land and commencement of main Civil works of First Stage of Dasu Hydro Power Project (2160 MW)
- Filling of Mangla reservoir up to maximum level of EL 1242 ft for two consecutive years during 2015 & 2016
- Record generation of Mangla Power Station during 2015 & 2016
- Record Generation by Hydel Power Stations during FY 2019-20.

PROFESSIONAL TRAINING AND MANAGEMENT COURSES

- Trainings on Operation and Maintenance of Thermal plants from March 1990 to Aug 1990
- Operation training of 300 MW CCPP in Training Centre Guddu, March, 1992
- Secured **1st Position** Junior Management Course from WASC, Islamabad from Nov 1994 to Jan 1995
- Secured **1st Position** in Middle Management Course from WASC, from May 2010 to July 2010
- Senior Management Course from WASC, Islamabad, 2014
- Technical Refresher Courses at WAPDA, Faisalabad Training Academy
- PICG Director Training Program for KAPCO Board

FOREIGN TRAININGS AND INSPECTIONS

- 2-weeks FAT for witnessing of Turbine Speed Governor Cubicles and Turbine & Generator Shafts of Mangla Rehab Project, Italy & France, 2019
- 8- weeksMaintenance Training of GT V-94.2 with Siemens, Germany, 1991
- FAT of Digital Governors of Tarbela Power Station Units 1-10, USA
- FAT of Turbine Runner of NJHPC, China
- Official Visit of 3 Gorges and Two underground power stations, China

- **Board of Director** of KAPCO, Neelum Jhelum, Heavy Mechanical Complex (HMC), Pakistan WAPDA Foundation (PWF), Diamer Basha Dam Organization (DBDO) and Barqab.

VI 0

UKaid

Adam Smith International

SEED
خوشحال

DEMAND ASSESSMENT REPORT

PROMOTING INDUSTRIAL DEVELOPMENT IN KHYBER PAKHTUNKHWA

EXPLORING POSSIBLE DIRECT SUPPLY ARRANGEMENTS FROM COMPLETED AND NEAR COMPLETION HYDROPOWER PROJECTS OF PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO)

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1. EXECUTIVE SUMMARY

Under the Sustainable Energy and Economic Development (SEED) program, consultants were engaged to provide transaction advisory services to the Pakhtunkhwa Energy Development Organization (PEDO). The objective is to transition PEDO's hydropower plants to a captive power model, inviting industries to establish units adjacent to designated hydropower plants—referred to as the "Direct Supply Arrangement."

The first phase of this assignment involved visiting selected hydropower projects and conducting a supply assessment. This included reviewing the operational status of the plants, identifying potential land parcels, exploring interconnection options, and evaluating legal and regulatory frameworks for the proposed transaction structures. This phase concluded on May 21, 2024.

The second phase focused on demand assessment or market sounding to gauge industry interest in direct supply arrangements with PEDO's hydropower projects. This report encapsulates the findings from Phase II.

To implement the second phase, the consultants undertook three key activities: (a) drafting an advertisement and Request for Information (RFI) document detailing the direct supply model and PEDO's hydropower projects, which included a structured questionnaire for industry feedback; (b) holding an interactive session with industry representatives to explain the concepts and assess interest levels; and (c) reviewing responses to the RFI questionnaires.

PEDO issued the advertisement on August 4, 2024, inviting interested parties to obtain the RFI document and participate in an interactive session scheduled for August 20, 2024. The original submission deadline for the RFI responses was August 30, 2024, but it was extended to September 13, 2024, to accommodate requests from interested parties.

A total of 60 registrations were received by PEDO for the RFI document from August 4 to September 10, 2024. Among these, 34 (57%) were from manufacturing businesses, predominantly from the steel industry. Other sectors represented included textiles, cement, alloy and metal processing, chemicals, pet bottle manufacturing, knives, edible oils, and match production.

The interactive session on August 20 attracted 72 participants from 39 entities. Key questions raised included (a) assurances regarding the continuation and implementation of the proposed plan; (b) government policy development amid current economic challenges; (c) tariff structure and mechanisms under the direct supply model concerning approved hydropower plants; (d) the status of these approved plants; and (e) land availability around the hydropower plants. While PEDO management assured attendees of continued policy support and the government's focus on industrial development, some investors emphasized the need for government guarantees to mitigate risks associated with relocating to remote areas.

Regarding the tariff structure, SEED consultants highlighted an inherent risk in electricity consumption under the direct supply model, which would be negligible if PEDO continues supplying under the Energy Purchase Agreement with the national grid. To address this risk, a partial "take or pay" structure may be necessary, though participants expressed concerns that this could impact their business viability.

By the extended deadline of September 13, 2024, a total of 37 interested parties had completed and submitted the RFI questionnaire, yielding a 62% response rate from the 60 registered entities. Of these respondents, 29 were from Khyber Pakhtunkhwa, one from Sindh, one from the UAE, and the remainder from Islamabad and Punjab.

Among the 37 respondents, 33 indicated their preferred hydropower plants for direct supply arrangements, which were analyzed in the report. The findings reveal that out of these, 20 respondents favored Jabori, with 14 (71%) ranking it as their first preference. Likewise, 13 respondents considered Machai, with 9 (69%) ranking it as their top choice. This suggests that 70% of those responding to the query identified either Jabori or Machai as their first preference for direct supply arrangements, while Karora and Shishi ranked as third and fourth choices, respectively.

To assess the financial strength of the interested parties and their capability to establish industrial units near their preferred hydropower plants, the average revenue of respondents who disclosed such information was analyzed. Notably, only 26 of the 37 respondents provided their revenue figures. The review indicates that major players favored Jabori, Karora, and Ranolia based on their projected projects, ranking these according to the operational status of the power plants. In contrast, Machai and Shishi were generally preferred by smaller players, with a few exceptions.

A power plant-wise summary of the preferred hydropower projects by interested parties is provided below:

Table 1.1: Summary of Demand Assessment

Name of PEDO hydropower plants	# of Respondents that preferred the HPP	Gross amount of investment proposals submitted under RFI (Rs in Billion)	Gross land requirement of Proposals received under RFI (Acres)	Estimated size of investment that can be entertained (Rs in Billion)	Estimated size of land to accommodate the possible investment levels (Acres)	Size of land available adjacent to power plants (Acres)	Approximate Length of Interconnection line (km) to identified land parcels
Jabori 10.2 MW	14	11.6 to 13.8	126 to 175	1 to 5	50	Parcel-A 6 Parcel-B 30	Parcel-A 1km Parcel-B* 15km
Machai 2.6 MW	9	2.1 to 3	31 to 44	Less than one billion	20	Sufficient land available at two identified locations	Parcel-A 1km Parcel-B* 17km
Karora 11.8 MW	6	5.5 to 6	23 to 28	1 to 5	10 to 20 but can be higher	Parcel-A 5 Parcel-B 50	Parcel-A 0.2km Parcel-B* 12km
Shishi 1.875	3	Not indicated	KPEZDMC already have land	Can not be estimated	Can not be estimated	KPEZDMC has shown interest to connect with its SEZ (40 Acres)	11km (new line)

*This involves extension of existing line connecting PEDO with national grid. The length includes both existing and new lines.

Most respondents were unable to accurately specify their electricity consumption and requirements, so this data has not been included in the report. Additionally, when asked about expected electricity prices under direct supply arrangements, respondents requested significant discounts, which have been documented and will be further analyzed in the next phase of the assignment. The report also examines the pros and cons of potential transaction structures based on RFI responses. The points raised will be elaborated upon and discussed with relevant stakeholders in the next phase of the assignment.

2. INTRODUCTION AND BACKGROUND

2.1 ABOUT SEED PROGRAM

Sustainable Energy and Economic Development (SEED) is a six-year program, budgeted at £37.5 million, with the objective of engaging counterparts within Government of Khyber Pakhtunkhwa (GoKP) and undertake detailed scoping studies and assessments and provide relevant and real-time technical assistance to the GoKP. It aims at improving economic and urban planning in KP, while also addressing Pakistan's energy crisis by providing innovative financial solutions to industry for the adoption of sustainable energy practices.

Within SEED, Adam Smith International has been contracted to deliver the first component, 'Improved Economic and Urban Planning in Khyber Pakhtunkhwa' (£15 million), to help the province plan and finance the investments and infrastructure it needs for growth, job creation and prosperity. The programme's longer-term outcomes include generating higher levels of public and private investments, enhancing public investment management efficiencies and ensuring that investments made produce greater economic, social, and environmental returns.

2.2 KHYBER PAKHTUNKHWA & INDUSTRIAL ELECTRICTY USE

Khyber Pakhtunkhwa (KP) is a landlocked province, with Afghanistan to the west and north, Azad Kashmir and Gilgit Baltistan (the Pakistani-administered areas of the Kashmir region) to the east and northeast, Punjab to the southeast, and Baluchistan to the southwest. KP industry is threatened by higher freight cost due to its distance from the port compared to industry in other provinces, while market size and access to central Asian states is also limited. The disadvantage to KP industry can be mitigated to certain level through provision of low-cost electricity from hydel generation resources of KP.

Due to above reasons and resultant administrative issue (e.g., security) the industrial footprint under the PESCO jurisdiction is quite lower than KE, GEPCO, LESCO, FESCO and MEPCO even though said utilities have lower geographical jurisdiction compared to PESCO.

Table 2.1: Comparison of PESCO's industrial consumption requirement

Industrial Load Profile of Selected DISCOs (FY 2024)	PESCO	GEPCO	LESCO	FESCO	MEPCO	KE
Number of Consumers	28,521	83,312	91,150	54,363	60,768	23,618
% Share of Consumers	7%	21%	23%	14%	15%	6%
Sanctioned Load - MW	1,947	2,264	5,759	2,837	2,865	2,836
% Share of Sanctioned Load	9%	10%	26%	13%	13%	13%
Electricity Sold - GWh	2,236	2,532	9,146	5,669	2,999	5,350
% Share of Electricity Sale	7%	8%	29%	18%	10%	17%

Source: State of Industry Report 2023, NEPRA
Note: 2024 numbers have not been published yet

2.3 PEDO'S PORTFOLIO AND SELECTED PROJECTS

Following PEDO HPP's are being considered for the Direct Supply Model PEDO has the exclusive mandate for the development and utilization of the power / energy resources of the province through public and private sector involvement, including under public private partnership (PPP) mode. As of date, PEDO own portfolio constitutes of 942.55 MW, out of which projects with cumulative capacity of 397.55 MW will be operational by end of 2026.

The portfolio of 397.55 MW, to be fully operational by end of 2026, includes 144.3 MW of completed/operational hydropower projects (as of date) and 251.25 MW of projects nearing completion, as provided in Table 2.2 below.

Out of 397.55 MW of operational and near completion projects, 43.5 MW worth of projects have already been approved by PEDO policy board for undertaking direct supply/captive arrangements with industry, while 243.96 MW worth of HPPs (also referred as 'Open Category') are currently planned to provide electricity to grid however subsequently can be taken either for wheeling or direct supply arrangements with specific approval of GoKP.

Table 2.2: Status of PEDO Owned Portfolio

PEDO owned Portfolio (maturing by 2026)					
HPP Name	Status	Dedicated	Wheeling to industry	Approved for Direct Supply to Industry	Open Category[b]
Operational					
Malakand-III	PPA Locked	81 MW to Grid			
Pehur HPP	Supplying to Industry		18 MW		
Daral Khawar HPP (currently supplying to grid)	EPA[a] with exit possibility				36.6 MW
Machai HPP	EPA not executed			2.6 MW	
Shishi HPP	EPA not executed			1.9 MW	
Reshun HPP	Off-grid-dedicated for local community	4.2 MW			
Sub-total		**85.2 MW**	**18 MW**	**4.5 MW**	**36.6 MW**
Near Completion					
Jabori HPP	EPA executed[1]			10.2 MW	
Ranolia HPP (effected by floods requires rehabilitation)	EPA[a] executed with exit possibility			17 MW	
Karora HPP	COD August 2024, EPA not executed			11.8 MW	
Lawi HPP	Completion July 2025, EPA not executed				69 MW
Koto HPP	Completion August 2024, EPA not executed				40.8 MW
Gorkin Matiltan HPP	Completion December 2024, EPA not executed				84 MW
Mujahidin HPP	Off-grid dedicated for local community	6.95 MW			
Chapri Charkael	Completion December 2026, EPA not executed				13.56 MW
Sub-total		**6.95 MW**	**-**	**39 MW**	**207.36 MW**
Totals		**92.15 MW**	**18 MW**	**43.5 MW**	**243.96 MW**
Grand Total			**397.55 MW**		

(a) PEDO EPAs executed with the grid (CPPA/PESCO) have clauses that allow PEDO to exit from said EPA after giving appropriate notice to the power purchaser and also to resume back later the EPA at any time, with appropriate notices and approvals.
(b) Open Category: denotes HPPs that are currently planned to provide electricity to grid however subsequently can be taken either for wheeling or direct supply arrangements with specific approval of GoKP, if there is interest or appetite from industry.

2.4 BACKGROUND TO THIS ASSIGNMENT

To mitigate the impact of KP's locational disadvantage to industry, PEDO has been working on strategies to directly supply electricity at economical rates to the industrial consumers, selected in a transparent manner. In order to achieve this, PEDO has identified two major options:

- Supply of electricity through wheeling arrangements: GoKP in first phase implemented a wheeling arrangement for Pehur 18 MW hydropower project wherein five industrial consumers were selected for supply of electricity from the said project using utility/PESCO's network. In the second phase, PEDO identified a larger portfolio for implementation of wheeling arrangement,

1 This has been updated since the submission of supply assessment

however, the initiative had to be put on halt because of legal stay on wheeling arrangement followed by delays in CTBCM implementation and high wheeling cost proposed by the DISCOs.

- Supply of electricity through Direct Supply Model: This model is focused to attract new industry in KP while circumventing wheeling issues. For this purpose, PEDO is considering to provide electricity through a Direct Supply Model; under the said model industry/business groups will be invited to establish industrial plants adjacent/close vicinity to hydel power plants of PEDO and benefit from the lower cost of hydel electricity.

Keeping in view the existing hurdles in proceeding under wheeling arrangements, this assignment is focused on provision of electricity to industrial hubs/units to be established around PEDO's hydropower plant(s) i.e. avoiding use of national grid for supply of electricity to the selected industries (hereinafter referred as "Direct Supply Model").

Accordingly, SEED floated an RFP for Transaction Advisory Services for Pakhtunkhwa Energy Development Organization Hydro Power Projects' Transition to Captive Power Mode. A consortium of individual consultants under lead firm Accloudant Consultants (Private) Limited was selected as Transaction Advisor for the assignment following a bidding process.

The objective of the assignment is to technically and financially evaluate the viability of the proposed hydropower projects under the captive model (Direct Supply Model) by assessing feasibility, identifying and mitigating cost-benefit and revenue risks, and formulating a robust transaction structure aligned with industry standards, while safeguarding the regulatory integrity of the project through the development of legally sound bilateral agreements to protect the interests of both PEDO and industrial consumers.

The assignment has been divided into the following four subsequent phases:

- Phase I – Supply Assessment: Supply availability and viability (in technical, legal and commercial terms) to the captive industry
- Phase 2 – Demand Assessment: Discovering demand for this model through an interactive process
- Phase 3 – Transaction Structuring and RFP: Evaluation of transaction structure options for supply to the industry.
- Phase 4 – Bidding and Award: Implementation of bidding process and selection of captive units.

2.5 CURRENT STATUS OF THE ASSIGNMENT

In Phase I of this assignment, a supply assessment was carried out in which five HPPs approved by PEDO for 'Direct Supply Arrangements' were surveyed, namely Machai, Jabori, Ranolia, Karora, and Shishi. Three workable arrangements were pointed out in the supply assessment:

- Option Type-A: Industry adjacent to HPP
- Option Type-B: New industrial unit(s) along with HPP's interconnection line
- Option Type-C: Supply to existing or new industrial zones near large HPPs or HPP clusters

After the approval of the "Supply assessment" on 21st May 2024, Phase I of the Project was concluded. This report presents the findings of the of Phase-II 'Demand Assessment'.

3. INTERACTION WITH INDUSTRY

3.1 OVERALL APPROACH TO DEMAND ASSESSMENT

To engage with the industry, following activities were performed during the Demand Assessment:

- The SEED team drafted the advertisement and Request for Information (RFI) documents, which were then approved by PEDO. The RFI document included details about the Direct Supply Model and a structured questionnaire to gather insights on potential industrial units that could be set up near PEDO's identified hydropower plants.
- PEDO published the advertisement, inviting interested parties to register for the RFI issuance.
- Registered parties received the RFI document after expressing interest based on the advertisement.
- PEDO and the SEED team conducted an interactive session with industry representatives to gauge investor interest, gather feedback, and clarify any questions related to the RFI or the project.
- One-on-one meetings were also held with some interested parties, namely KPEZDMC, Dilroze Khan Company, and Khyber Foundry.
- The responses from the industry to the RFI questionnaires were analyzed and have been summarized in the subsequent chapter of this report.

3.2 RFI ADVERTISEMENT

PEDO published an advertisement on August 4, 2024, in the newspapers "Mashriq Peshawar" and "The News" (see Annexure-I) inviting registrations to obtain the RFI document. The advertisement also called for interested parties to attend an interactive session scheduled for August 20, 2024, at 11:00 AM. Initially, the deadline for submitting the questionnaire/responses to the RFI was set for August 30, 2024. However, in response to requests from interested parties, this deadline was extended to September 13, 2024, through a corrigendum published in the newspapers.

3.3 RFI PROCUREMENT

From August 4, 2024, to September 10, 2024, PEDO received a total of 60 registrations for the procurement of the RFI document (see Annexure-II). Among these, 34 registrations (57% interest) came from the manufacturing sector, with the steel industry representing the majority at 21 registrations. Within the steel sector, the rerolling and rebar segments showed the highest interest in obtaining the RFI.

The manufacturing sector also saw four registrations from the textile industry, specifically in yarn and spinning. Additionally, the Khyber Pakhtunkhwa Textile Manufacturing Association (KPTMA) secured a separate registration to procure the RFI document as an association.

Cement plants also expressed interest by obtaining the RFI document; however, during discussions, they emphasized the need for wheeling electricity from PEDO's hydropower plants rather than adopting the direct supply model.

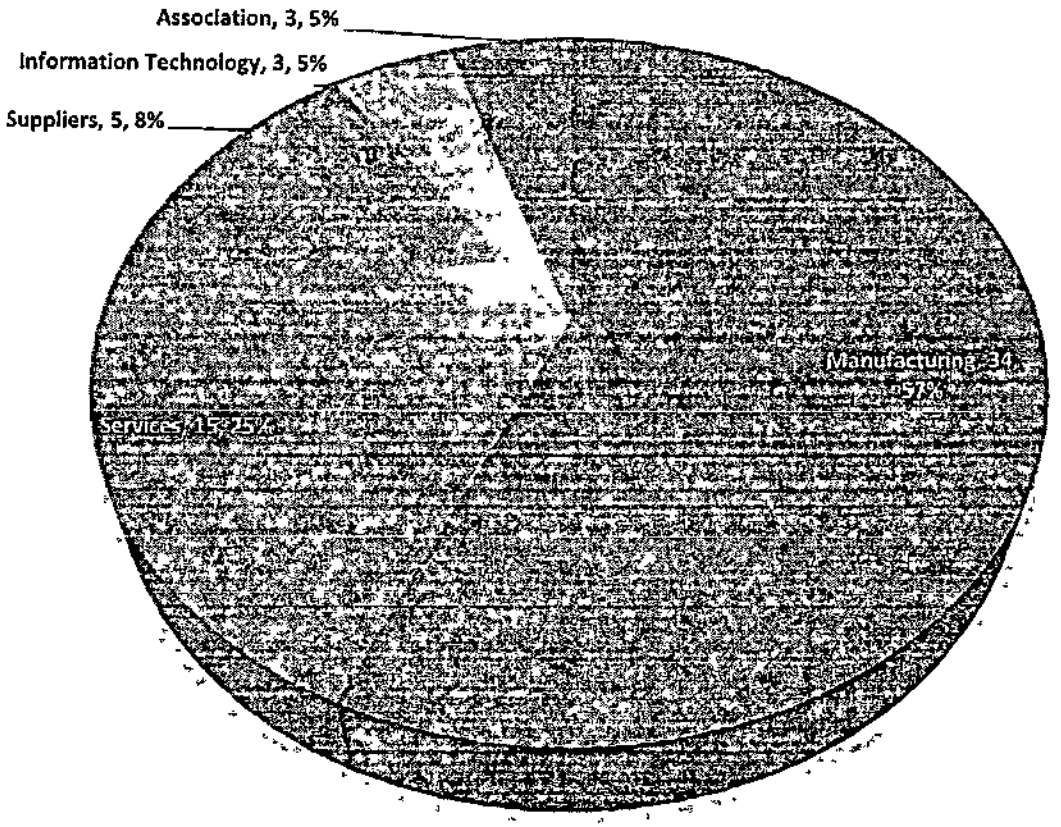
Other manufacturing businesses that registered for the RFI include those involved in alloy and metal processing, chemicals, PET bottle production, knife manufacturing, edible oil and ghee production, as well as board and match manufacturing.

The second-largest interest in RFI procurement came from the services sector, which accounted for 15 registrations (25%). This categorization reflects the existing backgrounds of the interested parties, although their proposed projects may pertain to manufacturing or other industries. Of the 15 registrations, six were from private consulting firms, four from civil contractor firms, two from engineering works and services firms, and one from a firm involved in energy services. Additionally, two public sector entities, the Khyber Pakhtunkhwa Board of Investment and Trade (KPBOIT) and

the Khyber Pakhtunkhwa Economic Zone Development & Management Company (KPEZDMC), also procured the RFI.

Besides manufacturing and services, other interested businesses included five suppliers (8%), three IT firms (5%), and various associations (5%). The associations that obtained the RFI include two chambers of commerce (KP and Swabi) and the KPTMA.

Figure 3.1: Breakup of Registrations/ RFI Procurements

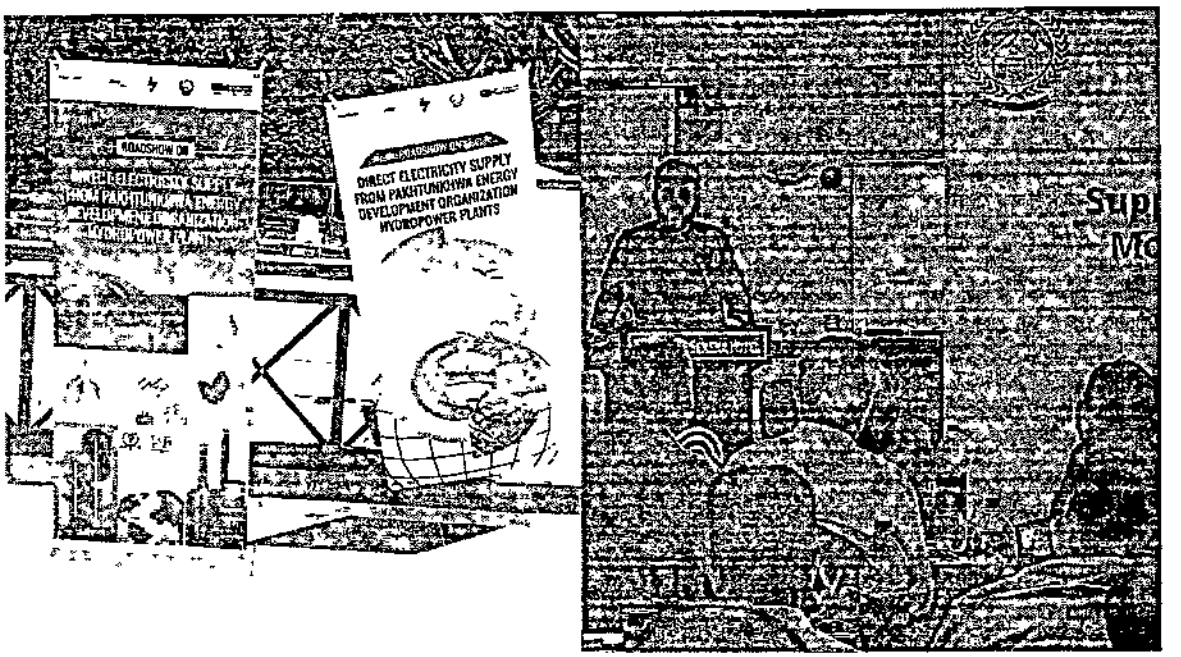


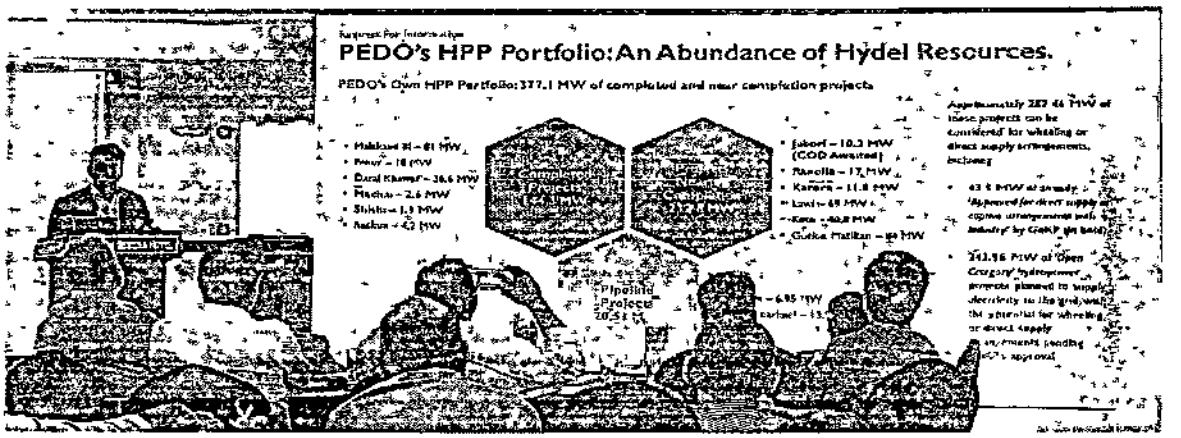
The majority of businesses (53) that registered with PEDO are either based in or have operations within Khyber Pakhtunkhwa. However, three businesses (two in manufacturing and one in services) expressed interest from Punjab. Additionally, two business groups from the UAE—one in IT (data warehousing) and the other in manufacturing (steel casting)—secured registrations. A civil contracting firm from Saudi Arabia also obtained the RFI document. Furthermore, a company from the USA, which has a global network and specializes in logistics and the supply of agricultural, meat, and poultry products, registered with PEDO as well.

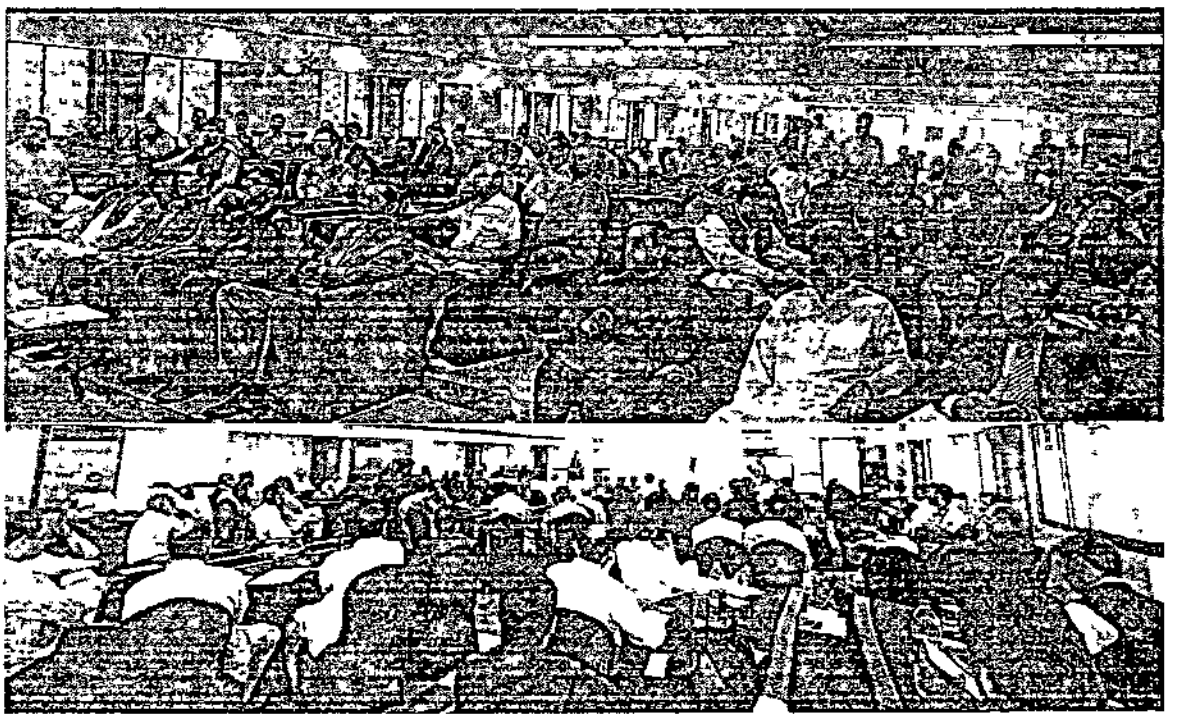
3.4 RFI INTERACTIVE SESSION

Given the high number of registrations, it was determined that the available space at PEDO House, Peshawar, would be insufficient. As a result, SEED facilitated the relocation of the venue to Serena Hotel, Peshawar, to better accommodate attendees.

The interactive session took place at Serena Hotel on August 20, 2024. The purpose of the session was to explain the direct supply model, gauge investor interest, and address any questions from the industry regarding the RFI and PEDO's power plants.


ROADSHOW ON
DIRECT ELECTRICITY SUPPLY
FROM PAKHTUNKHWA ENERGY
DEVELOPMENT ORGANIZATION
HYDROPOWER PLANTS


PEDO's HPP Portfolio: An Abundance of Hydel Resources.
PEDO's Own HPP Portfolio: 377.1 MW of completed and near completion projects
Pipeline Projects



3.5 MAJOR BUSINESS GROUPS AT INTERACTIVE SESSIONS

The interactive session was attended by 72 participants representing 39 entities (see attendance list in Annexure-III). Below is a list of notable business groups that participated, along with their descriptions:

- Gadoon Textile Mills Limited (GTML): Part of the Yunus Brother Group (YBG), a conglomerate established in 1962 with interests in textiles, cement, and power generation. YBG acquired ICI Pakistan Limited and is now the largest manufacturer of soda ash and the second-largest producer of polyester staple fiber in the country. GTML primarily focuses on the fiber spinning sector, producing yarn and sheets.

- Sapphire Group: Established in 1970, Sapphire Group is a leading conglomerate based in Lahore, with its largest segment in export-based textiles. The group is involved in home textiles, fabric, yarn, and yarn dyeing. Additionally, it has significant investments in renewable energy (wind power projects) and dairy, along with a robust retail network of fashion stores.

- Saif Group: This industrial and services conglomerate operates across various sectors, including power, healthcare, textiles, real estate, and telecommunications. Founded over 90 years ago, the group began with a diesel-powered plant to supply electricity to Bannu City in Khyber Pakhtunkhwa.

- A.J. Textiles: Part of the Aziz Group of Industries, A.J. Textiles includes a facility with 100,000 spindles and produces safety match boxes (Mohsin Match Factory), premier boards, and towers in Islamabad. The textile business is supported by a 4.2 MW HFO power plant, making it a leading exporter and manufacturer of home textiles, institutional textiles, uniforms, towels, and cotton bags in Pakistan.

- Cherat Group: A member of the Ghulam Faruque Group, Cherat operates in various sectors across Pakistan, including cement production, EPC contracting, standby power generation, solar energy solutions, data centers, backup power rental, air-conditioning (Greaves), and packaging material production (Cherat Packaging).

- Pak Steel: Established in 1949, Pak Steel manufactures mild steel rounds, deformed bars, and cold twisted rebars, with a rebar production capacity of 350 tons/day at the Hattar Special Economic Zone (HSEZ).

- FF Steel: Founded in 1986, FF Steel operates two manufacturing plants in Lahore and Peshawar, equipped with customized production equipment. The company specializes in producing deformed Grade-60 and Grade-80 steel bars.

- BM Steel: Established in 1982, BM Steel has a rerolling complex with an annual capacity of 30,000 metric tons.

- Khyber Foundry: With 25 years of experience Khyber Foundry specializes in the manufacturing and distribution of iron billets.

Higgs Computing Limited: Based in Ras Al Khaimah, UAE, Higgs Computing operates high-performance computing data centers focused on blockchain and artificial intelligence applications. The company emphasizes powering its energy-intensive data centers with green energy sources, including hydro, solar, wind, flare gas, waste heat recovery, stranded energy, and other sustainable forms of energy. It has R&D facilities in Karachi, Pakistan, and is pursuing additional high-performance computing licenses in the GCC, Africa, and Asia.

3.6 KEY DISCUSSION AT INTERACTIVE SESSION

The formal proceedings of the interactive session commenced with a recitation from the Holy Quran. This was followed by a speech from the Secretary of Energy and Power (E&P), who provided an overview of ongoing initiatives and future plans for PEDO.

After the Secretary's introduction of PEDO, the Advisor to the Chief Minister on Finance discussed the government's policy and its emphasis on promoting industrial growth in Khyber Pakhtunkhwa. He highlighted the critical role of energy infrastructure in fostering economic growth and attracting investment.

Next, SEED Consultants (Accloudant) delivered a comprehensive briefing on the Request for Information (RFI), outlining key project components, objectives, and potential opportunities for stakeholders.

The session included interactive Q&A segments that continued throughout the event. Participants actively exchanged ideas and raised questions regarding the Direct Supply Model and the associated hydropower projects. Overall, the sentiment among investors was positive, fostering a constructive atmosphere throughout the discussion.

Key questions raised by participants included: (a) assurances regarding the continuation and implementation of the proposed plans; (b) the development of government policies amid current economic challenges; (c) the tariff structure and mechanisms under the direct supply model concerning approved hydropower plants (HPPs); (d) the status of approved hydropower plants; and (e) the availability of land around these HPPs.

PEDO management assured participants of policy continuity and the Government of Khyber Pakhtunkhwa's focus on industrial development. However, some investors expressed a need for government guarantees to mitigate the risks associated with relocating operations to remote areas.

SEED Consultants addressed questions about land availability around the power plants, referencing the approved supply assessment report dated May 21, 2024. They assured participants that the proposed direct supply model would be designed based on input from the RFI questionnaire.

Regarding the tariff structure, SEED Consultants explained that the direct supply model carries two inherent risks for PEDO: (a) a mismatch between generation and consumption, and (b) dependence on the operations of the industrial unit. Both risks are minimal if PEDO continues to supply under an Energy Purchase Agreement with the national grid. To mitigate these risks under the direct supply model, multiple industrial units would be connected to a single power plant. However, even with this structure, the risk of non-consumption remains significant. Therefore, it is anticipated that a portion of the tariff would need to be fixed and linked to the available generation capacity of the power plant. Participants raised concerns about the proposed "take or pay" feature of the tariff, indicating it could impact their business viability.

Investors also inquired about the status of the Ranolia HPP, whose switchyard was damaged in recent flash floods. SEED Consultants informed the audience that rehabilitation work is underway to restore the plant. Industrialists expressed particular interest in the Jabori (10.2 MW) and Machai (2.6 MW) HPPs.

Technical queries regarding the extension, development, and operation of transmission lines were addressed in a separate session by the CEO of the Khyber Pakhtunkhwa Transmission & Grid Company (KPT&GC). He confirmed that the entity is duly licensed by the regulator to undertake such operations and is capable of constructing and operating direct transmission lines.

Investors expressed appreciation for the government's efforts to implement innovative solutions to promote industry within Khyber Pakhtunkhwa.

3.7 ONE-ON-ONE MEETINGS WITH THE INDUSTRY

To further engage with the industry, the SEED consultants held one-on-one meetings with interested parties, namely KPEZDMC, Dilroze Khan Company, and Khyber Foundry. The key discussion points of these meetings are presented hereunder.

A. KPEZDMC

KPEZDMC develops and manages industrial estates in Khyber Pakhtunkhwa to help in organizing and establishing planned and rapid industrialization in Khyber Pakhtunkhwa.

A meeting was held on 31st July 2024 at KPEZDMC's head office before the publishing of the Request for Information advertisement. The meeting discussion primarily entailed the following points:

- The provision of supply of electricity through a Direct Supply Arrangement from Shishi HPP (1.9 MW) to the industrial estate at Drosh.
- The possibility of supply of electricity through Direct Supply Arrangement(s) to an envisaged industrial zone adjacent to Karakoram Highway, at Pandiyarh village (Barsharyal), district Bisham. A large-sized parcel of land for the envisaged industrial zone has been identified close to the terminal tower of the PEDO-constructed transmission line for Karora HPP (11.8 MW) which is near completion. This identified land is also close (10 km by road) to Ranolia HPP (17 MW) that is currently under rehabilitation.
- The KPEZDMC showed interest in RFI process for Shishi HPP and agreed to revert with their response on envisaged economic zone on Karakoram Highway.

B. DILROZE KHAN COMPANY

Dilroze Khan Company showed interest in Direct Supply Model and had a one-on-one meeting on 12th August 2024 with the SEED's Consultants. The representative of the company informed that they are already engaged with PEDO on Machai HPP (2.6 MW) and showed interest in RFI process for establishing Steel Re-rolling Mills in the Machai region. The company informed that they are in process of establishing a consortium for undertaking the project, however indicated reservations on take-or-pay basis. On land availability the investor highlighted that lease discussions were already ongoing, and that the land will be 1 – 1.5 km away from the Machai HPP (along the Machai canal).

C. KHYBER FOUNDRY

Khyber Foundry showed interest in Direct Supply Model and had a one-on-one meeting on 23rd August 2024 with the SEED's Consultants. Khyber Foundry expressed a requirement of 5-7 MW for manufacturing steel billets. The representative of the company highlighted that were already considering expansion and have imported Italian machinery for steel rerolling, with this opportunity in hand they would visit each HPP individually to assess and decide on the location for establishing their manufacturing facility.

The steel industry's interest in PEDO HPPs stems from two main reasons: (a) steel manufacturing is an energy-intensive process, and there is fierce competition among players for price and market share; (b) some steel producers in Punjab have already begun to partially transition to renewable energy sources, such as bagasse and solar, which has provided them with a competitive edge. In contrast, the industry in the northern region faces lower solar irradiance, limiting its ability to utilize solar energy effectively.

4. RESPONSE LEVEL ON RFI

4.1 NUMBER OF RESPONDENTS ON RFI

A total of 37 interested parties (see Annexure-IV) completed the RFI questionnaire provided by PEDO after the advertisement published on August 4, 2024, and the interactive session held on August 20, 2024. This corresponds to a response rate of 62% from the 60 registrations for RFI procurement. Among the 37 respondents, 29 are from Khyber Pakhtunkhwa, 1 from Sindh, 1 from the UAE, and the remaining respondents are from Islamabad and Punjab.

4.2 GENERAL BACKGROUND OF RESPONDENTS

The existing businesses of the respondent entities relate to following sectors:

Table 4.1: Existing Businesses of the Respondents

Sector	# of Respondents	%age
Steel	18	49%
IT, Data centers & engineering automation etc.	04	11%
Mineral & processing	03	8%
Textile	03	8%
Energy (solar and rental of power plants)	03	8%
Electro-mechanical works and construction	01	3%
Trading & services	01	3%
Not disclosed	03	8%
Public Sector (KPEZDMC)	01	3%
Total	**37**	**100%**

Majority of responses are from high level executives (CEO/Director) of respective entities.

4.3 PREFERRED HYDROPOWER PLANTS OF PEDO

Out of the 37 respondents, 33 expressed their preferences for specific hydropower plants for direct supply arrangements. A summary of these responses is provided in the table below.

Table 4.2: Preferred HPPs for Direct Supply Arrangements

Ranking	Jabori	Karora	Ranolia	Machai	Shishi	Gorkin Matiltan	Daral Khwar	Koto
	10.2 MW	11.8 MW	17 MW	2.6 MW	1.875 MW	84 MW	36.6 MW	40.8 MW
1st	14	6	0	9	3	0	0	0
2nd	3	6	5	2	2	0	1	0
3rd	2	5	4	0	2	1	0	0
4th	1	1	1	2	0	2	0	1
5th	0	0	0	0	0	0	2	0
6th	0	0	0	0	0	0	0	2
Total	20	18	10	13	7	3	3	3
%age 1st Rank	70%	33%	0%	69%	43%	0%	0%	0%

According to the analysis, **out of the 33 respondents, 20 identified Jabori as a preferred choice for direct supply arrangements, with 14 (71%) ranking it as their top preference. Similarly, 13 respondents included Machai on their lists, with 9 (69%) ranking it first. Therefore, it can be concluded that 70% of respondents who indicated their preferred hydropower projects ranked either Jabori or Machai as their top choices for direct**

supply arrangements. The third and fourth preferred projects are Karora and Shishi, respectively.

4.4 COMMENTS ON BANKABILITY OF ENVISAGED ARRANGEMENTS

To understand financial strength of the interested parties (respondents), with reference to their capability to put up industrial units closer to indicated preferred hydropower plants, the average revenue of the respondents (who shared such information) has been analyzed. It is important to highlight that out of 37 respondents only 26 respondents disclosed their revenue numbers in respective filled questionnaires, while 3 respondents (with revenue disclosures) have not indicated their preferred hydropower plants. Accordingly, there are 23 respondents who have provided both their revenue and preferred projects and have been analyzed hereunder:

Table 4.3: Preferred HPPs and Respondents Financial Strength

Revenue (3 Year Slabs (3-Yr Avg.))	Jabori	Karora	Ranolia	Machai	Shishi	Gorkin Matiltan	Daral Khwar	Koto
	10.2 MW	11.8 MW	17 MW	2.6 MW	1.875 MW	84 MW	36.6 MW	40.8 MW
>Rs 10 B	2	0	0	0	0	0	0	0
>Rs 5 B	-	1	-	-	-	-	-	-
>Rs 4 B	-	-	-	-	-	-	-	-
>Rs 2 B	2	1	-	1	-	-	-	-
>Rs 1 B	4	1	-	-	1	-	-	-
>Rs 500 M	-	-	-	1	-	-	-	-
>Rs 300 M	1	1	-	-	-	-	-	-
>Rs 200 M	-	-	-	-	-	-	-	-
>Rs 100 M	1	1	-	-	-	-	-	-
>Rs 50 M	-	-	-	1	-	-	-	-
>Rs 25 M	-	-	-	1	-	-	-	-
>Rs 10 M	-	-	-	2	-	-	-	-
>Rs 5 M	-	-	-	-	-	-	-	-
<Rs 5M	-	-	-	1	-	-	-	-
Total	10	5	-	7	1	-	-	-

Based on the information above and Table 4.1, it appears that major players are primarily focused on Jabori, Karora, and Ranolia, ranking them according to the operational status of the power plants. In contrast, smaller players are likely favoring Machai and Shishi. It can be inferred that respondents with revenues exceeding Rs 500 million expressing interest in Machai and Shishi may be looking to leverage locational advantages or existing land in the vicinity.

In addition to the 23 interested parties mentioned, there are three respondents who have not specified any preferred hydropower plants but have disclosed their revenue figures: Gadoon Textile (part of the Younas Brothers/Lucky Group) and two textile projects from the Saif Group, with revenues exceeding Rs 10 billion. The Saif Group has indicated its interest in wheeling electricity from PEDO hydropower projects.

KPEZDMC has shown interest in Shishi but has not disclosed its revenue. As a public entity, it is expected that KPEZDMC's interconnection with the nearby Chitral economic zone will fall under a government-to-government (G2G) arrangement.

4.5 COMMENTS ON TRANSACTION STRUCTURE

For transaction structuring and procurement design, two major options from a risk perspective are analyzed below, which should be considered in the later stages of the assignment:

Table 4.4: Pros & Cons of Single Vs Multiple Consumers

One hydropower plant supplies to one selected party		One hydropower plant supplies to multiple selected parties	
Pros	Cons	Pros	Cons
Major players can be attracted for investment, and it is easier to deal with single selected party. Land requirement might be lower. Also single interconnection could be easier for KPTGC and from approval perspective.	Lower interest by large industrial players, at RFP stage can delay the transaction. Selected single large industrial player will have higher bargaining power during implementation and operations. Delay in construction because of Right of Ways can result in higher Liquidated Damages to KPTGC.	Lower bargaining power of selected multiple medium to small scale players, during implementation and operations. Construction of multiple interconnection lines might diversify risk of loss to KPTGC.	Combined investment of multiple small and medium players might be lower than single large player and it would be difficult to manage multiple players under direct supply arrangement. Allocation of cost of common infrastructure (interconnection lines) might create issues. Also, multiple approvals will be required from regulator.
Delay in completion of large industrial unit can delay PEDO's exit from existing EPA (national grid), hence no risk to PEDO from delay in construction of industrial unit.	Post completion of construction of industrial unit, there will be complete dependence of hydropower plant on operations of single industrial unit.	Multiple consumers can diversify/ dilute PEDO's electricity sale risk.	Delay in construction of one or two industrial units, can affect others that timely complete the construction of respective industrial units. Industrial units that complete construction on time will push PEDO to exit from national grid, which may result in financial loss to PEDO. If PEDO do not exit from national grid, the completed power plants will suffer as these will not be able to get electricity at bid price in which case there will be a financial loss to the timely completed industrial units.
Risks Mitigations		Risks Mitigations	
To avoid risk of complete dependence on operations of single industrial unit, it may be considered that 50%-60% of the tariff can be subject to take or pay basis, backed by strong financial guarantees and advance payments from the consumer. Procurement to be designed to give preference to large scale players, while also allowing multiple small-medium players in the bidding process.	The industrial unit might show resistance in giving higher guarantees and in implementing advance payment mechanisms. However, resistance is expected to be manageable.	To avoid risk of construction delays by medium to small industry players, there could be two options: A) Take guarantees to timely complete the construction and encash same, if required, to fund financial loss to PEDO in case of exit from national grid. B) Execute arrangement with DISCO for left over/ excess electricity.	There will be a logical limit to the guarantee amount, while level of risk because of delay is dependent upon number of selected industrial players between which electricity is to be distributed and how many of them could delay and for how long. Sale of excess electricity to DISCO, will be difficult under direct supply model and may delay complete transaction for executing said arrangements.

4.6 KPRA REGISTRATION

Approximately 41% of respondents noted that their related business ventures are not registered with the Khyber Pakhtunkhwa Revenue Authority (KPRA). **To encourage participation from bidders at the RFP stage, it is recommended that KPRA registration should not be an upfront requirement for bidding. Instead, it could be mandated as a post-bidding compliance requirement prior to the commencement of electricity supply to the respective industrial unit or as a condition for entering into the definitive agreement.**

5. JABORI HPP

5.1 OVERVIEW OF INDUSTRY RESPONSE

With a capacity of 10.2 MW, a balanced monthly generation profile, and a strategically favorable location, the Jabori Hydropower Project (HPP) has attracted significant interest, wherein 14 parties considered it as first preference for direct supply arrangement. Among these respondents, 11 have proposed projects or concepts in the steel sector, while the others represent proposals in the metal processing and information technology sectors.

The 14 proposed projects indicate cumulative investment ranging from Rs 11.6 billion to Rs 13.8 billion. The total land requirement for these industrial entities spans between 126 and 175 acres. However, it is expected that the project will not be able to entertain all the interested parties accordingly the electricity generated from the plant can be either provided to single or few of the selected investors (under bidding process). Based on this, **it is estimated that the project will be able to mobilize investment in the range of Rs 1 to 5 Billion for which 50 Acres of land will be required adjacent to the hydropower plant. Range of single industrial unit varies between 2 to 25 acres.**

A summary of responses from interested parties is provided hereunder:

Table 5.1: Summary of RFI respondents for Jabori HPP

S. No	Respondent	Sector / Industry	Description of Project Concept	Production Capacity / Size	CAPEX Rs. Billion	Land Requirement and Interconnection Arrangement
1.	Apex Energy Limited	Metals Processing / Information Technology	1. Mineral processing – copper, lead and allied metals – ***Greenfield project*** 2. Data and blockchain processing center – ***Greenfield project***	100,000 – 150,000 metric tons for mineral processing	Not provided	• 10 – 15 acres. • The party is willing to finance and construct the interconnection facility and is open to either owning and operating the transmission line or transferring it to the GoKP, with the cost to be adjusted in future tariff payments for electricity supplied by the Jabori HPP.
2.	Star Connect (SMC)	Steel	Steel production – ***Greenfield project***	18,000 – 25,000 metric tons	0.16 - 0.18	• 2 acres. • The party is amenable to either owning, financing, and constructing the interconnection facility themselves or allowing PEDO to handle the construction, with a transmission tariff added to the generation tariff for electricity supplied by the Jabori HPP.
3.	Higs Computing Limited	Information Technology	High performance Computing Data center – ***Greenfield project***	Tier 1-2 high performance centers with a power requirement of 10MW	2.8	• 5 – 15 acres. • The party is amenable to owning, financing, and constructing the interconnection facility
4.	Zia Steel Re Rolling Mills	Steel	Steel re rolling and melting – ***Greenfield project***	52,000 metric tons	N/A	6 acres
5.	Abdul Rehman Faqeer Minerals (Pvt) Ltd	Mining/ mineral processing	Mineral processing – copper, lead and allied metals – ***Greenfield project***	100,000 – 150,000 metric tons for mineral processing	0.6	• 10 – 20 acres. • The party is willing to finance and construct the interconnection facility and is open to either owning and operating the transmission line or transferring it to the GoKP, with the cost to be adjusted in future tariff payments for electricity supplied by the Jabori HPP.
6.	Frontier Foundary Steel Ltd	Steel	Steel rebars production – ***Brownfield project***	144,000 metric tons	0.8 – 1	• 20 acres. • The party is amenable to any of the three proposed interconnection approaches.

No.	Respondent	Sector / Industry	Description of Project Concept	Production Capacity / Size	CAPEX Rs. Billion	Interconnection Arrangement
7.	Pak Steel Re Rolling Mills	Steel	Steel production – ***Brownfield project***	21,000 metric tons	0.5	• 10 acres. The party is amenable to either owning, financing, and constructing the interconnection facility themselves or allowing PEDO to handle the construction, with a transmission tariff added to the generation tariff for electricity supplied by the Jabori HPP.
8.	Farid Steel Pvt Ltd	Steel	Steel production – ***Brownfield project***	21,000 metric tons	0.5	• 8 acres. The party is amenable to either owning, financing, and constructing the interconnection facility themselves or allowing PEDO to handle the construction, with a transmission tariff added to the generation tariff for electricity supplied by the Jabori HPP.
9.	M.A Steel Casting	Steel	Steel production – ***Greenfield project***	35,000 metric tons	2 - 2.5	• 10 acres. The party is amenable to either owning, financing, and constructing the interconnection facility themselves or allowing PEDO to handle the construction, with a transmission tariff added to the generation tariff for electricity supplied by the Jabori HPP.
10.	Pak Farid Steel Industries	Steel	Steel production – ***Greenfield project***	40,000 metric tons	2 – 2.5	• 20 acres The party is amenable to either owning, financing, and constructing the interconnection facility themselves or allowing PEDO to handle the construction, with a transmission tariff added to the generation tariff for electricity supplied by the Jabori HPP.
11.	Khyber Foundary	Steel	Steel production – ***Brownfield project***	29,800 tons	0.210	• 3- 4 acres of leasable land near the Jabori HPP. PEDO to own, develop, finance and construct the interconnection facility (including transmission line) and charge a transmission tariff (as determined by NEPRA) from the industrial facility in addition to the generation tariff.
12.	Sher Steel Furnace & Re rolling Mills	Steel	Steel furnace and re rolling mill – ***Greenfield project***	48,000 metric tons	4 - 5	• 4 – 5 acres Industrial player to develop, finance, own and construct the interconnection facility (including transmission line.
13.	Prime Steel Industry	Steel	Steel production – ***Greenfield project***	96,000 metric tons	Not provided	08 – 10 acres
14.	Precision Engineering / Alaris Trading Corp	Metals Processing	Manufacturing silicon metal for solar cells, panels, ferrochrome, and silico-manganese used in the steel and stainless steel industries – ***Greenfield project***	Not provided	Not provided	• 10 – 25 acres. The interconnection is subject to the availability of land and the pricing structure of the tariff

Note: Greenfield projects denote new industrial units while brownfield projects denote proposed relocation of existing units

5.2 LAND REQUIREMENT AND INTERCONNECTION ARRANGEMENTS

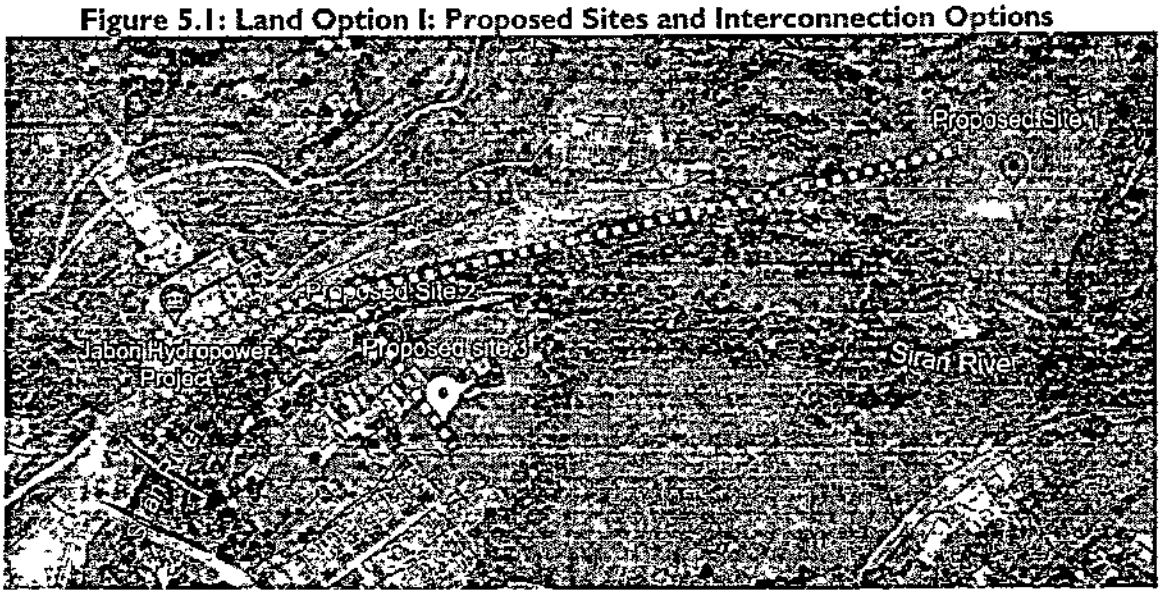
The Supply-Side Assessment identified two main land options in Jabori HPP's vicinity:

Land Option I:

Approximately 6 acre of relatively uneven land is available in the immediate vicinity of Jabori HPP, split into two parcels. The first parcel, around 15 kanal, is approximately 500 meters from the Jabori switchyard (Proposed Site 1). The second parcel, totaling 30 kanal, is located opposite Jabori HPP and divided into two sections (Proposed Sites 2 and 3), as shown in the figure below.

If land option I is utilized, the proposed industrial units can be directly connected to Jabori HPP via an 11kV transmission line, depending on the exact location selected near the plant. This direct connection will eliminate step-up energy losses, with thetransmission line being roughly 1 km in length.

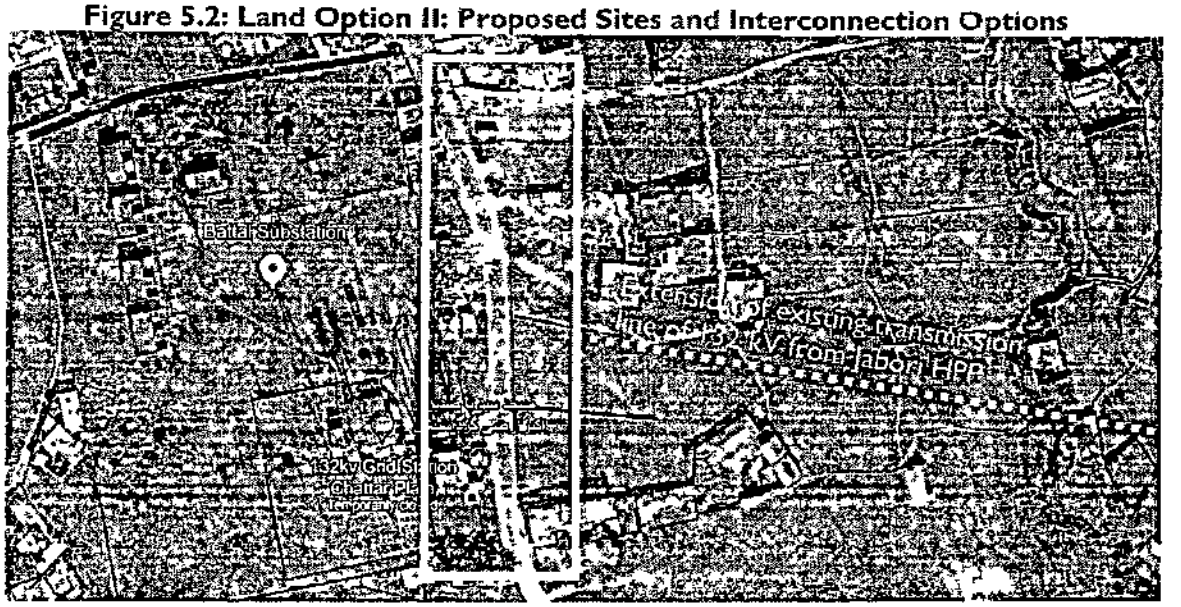
Figure 5.1: Land Option I: Proposed Sites and Interconnection Options



Land Option II: Large, flat land parcels are available at the end of the PEDO-constructed transmission line (near the terminal tower) in Chattar Plain. This site is approximately 14.6 kilometers from Jabori HPP along the PEDO-constructed 132 kV transmission line to the Battal substation; however, the road distance from Jabori HPP to the proposed land is about 40 km. The non-agricultural or commercial land parcel is estimated to be around 30 acres (if more than 30 acres is required it could be agriculture land), which can be developed for industrial use with minimal environmental concerns. The access road to Chattar Plain is metaled and can accommodate heavy traffic.

If this land option is utilized in Chattar Plain, an additional transmission line of approximately 1 km and a step-down to 11 kV will be required. However, this stepdown may result in higher energy losses due to the voltage reduction from 132 kV to 11 kV for supplying power to the industry in Chattar Plain, unless relevant industry require electricity at 132 kV.

Figure 5.2: Land Option II: Proposed Sites and Interconnection Options



Considering the land requirements identified by respondents range from 2 to 25 acres for a single investor, land option-I is about 6 Acres that will involve minimum direct lines and regulatory approvals, while land Option-II can accommodate large or combination of 2-3 industrial units. However, Option-2 will be time consuming from an interconnection perspective, as existing interconnection scheme with the national grid might require change.

5.3 ELECTRICY PRICE EXPECTATIONS

Most respondents indicated their electricity price expectations as a percentage discount from the grid electricity price, while a few provided expected prices in absolute terms. Assuming an average B3 industrial tariff of PKR 38.64 per kWh, these prices have been converted to a discount from the grid electricity price for consistency in the dataset, as shown in the table below.

Table 5.2: Industry's Price Expectations for Jabori HPP

No.	Respondent	Discount to Grid Electricity Price
1.	Apex Energy Limited	30% - 70%
2.	Star Connect (SMC)	50%
3.	Higs Computing Limited	80%
4.	Zia Steel Re Rolling Mills	74%
5.	Abdul Rehman Faqeer Minerals (Pvt) Ltd	30% - 70%
6.	Frontier Foundary Steel Ltd	73%
7.	Pak Steel Re Rolling Mills	90%
8.	Farid Steel Pvt Ltd	90%
9.	M.A Steel Casting	90%
10.	Pak Farid Steel Industries	90%
11.	Khyber Foundary	55% - 65%
12.	Sher Steel Furnace & Re rolling Mills	60% - 70%
13	Prime Steel Industry	90% - 92%
14.	Precision Engineering / Alaris Trading Corp	Not provided

In the next phase of the assignment—financial analysis and transaction structuring—the effective generation tariff expectations for Jabori HPP will be calculated based on these discounts. This will be compared with Jabori HPP's NEPRA-determined, indexed tariff to establish a bidding floor price, assess PEDO's potential returns, and evaluate the financial flexibility available to offer discounted rates to the industry.

6. KARORA HPP

6.1 OVERVIEW OF INDUSTRY RESPONSE

Karora HPP is a run-of-the-river power plant with a capacity of 11.8 MW, featuring a design discharge of 9.75 m^3/s and a net head of 142 m. A 3 km tunnel channels the flow, resulting in the generation of 71.39 GWh of annual energy. The HPP has received six preferred interests during RFI process, with five parties proposing industrial projects in the steel sector. Additionally, one party has expressed interest in establishing greenfield facilities for metal processing and agricultural processing, including fruits, vegetables, and meat.

The six proposed projects collectively indicate potential investments ranging from Rs 5.5 billion to Rs 6 billion, although not all respondents have provided an investment estimate. The total land requirement for these industrial entities is between 23 and 28 acres.

However, it is anticipated that the project will not be able to accommodate all interested parties; thus, the electricity generated from the plant may be supplied to a single investor or distributed amongst a selected few (under bidding process). Based on this scenario, **the project is expected to mobilize investments between Rs 1 billion and Rs 5 billion, necessitating 10-20 acres of land adjacent to the hydropower plant. The land requirement for individual industrial units varies from 2 to 10 acres.**

A summary of responses from interested parties is provided hereunder:

Table 6.1: Summary of RFI respondents for Karora HPP

No.	Respondent	Sector / Industry	Description of Project Concept	Production Capacity / Size	CAPEX Rs Billion	Land Requirement and Interconnection Arrangement
1	Dynamic Engineering and Automation	Metals Processing / Agriculture	1. Graphene processing – ***Greenfield project*** 2. Fruits & vegetable processing – ***Greenfield project*** 3. Meat processing – ***Greenfield project***	• 50 metric tons for mineral processing • 150 ,000 metric tons of fruit and vegetable processing • 250,000 metric tons of meat processing	0.20	• 10 acres. • The party is willing to finance and construct the interconnection facility and is open to either owning and operating the transmission line or transferring it to the GoKP, with the cost to be adjusted in future tariff payments for electricity supplied by the Karora HPP.
2.	Ihtisham Steel Mills Pvt Ltd	Steel	Steel production – ***Greenfield project***	3,000 metric tons	0.16 - 0.18	• 5 acres. • Industrial player to develop, finance, own and construct the interconnection facility (including transmission line.
3.	Gul Shahzada Steel Mills	Steel	Steel re rolling and melting – ***Greenfield project***	48,000 metric tons	4.5 - 5	• 4 –5 acres. • The party will develop, finance, own and construct the interconnection facility including transmission line.
4.	M/S Abaseen Steel Re - Rolling Mills Pvt LTD	Steel	Steel re rolling and melting – ***Greenfield project***	50,000 metric tons	N/A	• 2-4 acres PEDO to own, develop, finance and construct the interconnection facility (including transmission line) and charge a transmission tariff (as determined by NEPRA) from the industrial facility in addition to the generation tariff.
5.	Amjad Jamil and Company	Steel	1. Steel re rolling and melting – ***Brownfield project***	115,200 metric tons	N/A	• 8 –10 acres.
6.	M/S Jadoon Metal Works (Pvt) Ltd	Steel	Steel production – ***Greenfield project***	60,000 metric tons	0.6	• 2-4 acres. • PEDO to own, develop, finance and construct the interconnection facility (including transmission line) and charge a transmission tariff (as

No.	Respondents	Sector / Industry	Description of Project Concept	Production Capacity / Size	CAPEX Rs. Billion	Land Requirement and Interconnection Arrangement
						determined by NEPRA) from the industrial facility in addition to the generation tariff.

Note: Greenfield projects denote new industrial units while brownfield projects denote proposed relocation of existing units

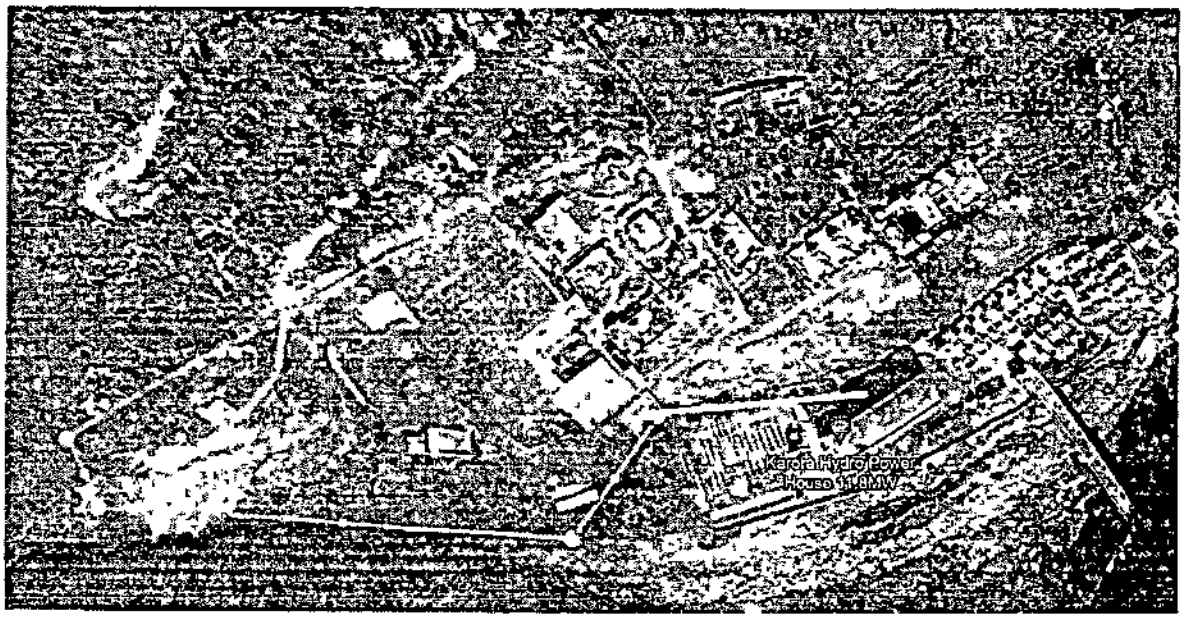
6.2 LAND REQUIREMENT AND INTERCONNECTION ARRANGEMENTS

The Supply-Side Assessment identified two main land options in Karora HPP's vicinity:

Land Option I: Adjacent to the residential colony and powerhouse, there is a relatively flat land parcel of approximately 30 to 40 kanals (5 Acre). This land was previously rented by construction contractors during the Karora Project for temporary storage, as well as for parking construction machinery and vehicles. The lease has now expired, and the owner may be interested in selling the land.

This land may be suitable for accommodating a single industrial unit based on land requirements identified by the RFI respondents. In case this land parcel is utilized, the industry can be connected directly to the Karora HPP via an 11 kV transmission line, depending on the specific location of the land parcel adjacent to the HPP. The white line in Figure 1.1 illustrates the proposed transmission line from the HPP to the identified land parcel, with an estimated distance of 200 meters.

Figure 6.1: Proposed Grid Interconnection near Karora HPP



Land Option II: A large land parcel (40 – 50 acres) is available in Pandhiyar village (Barsharyal) along the Karakoram Highway, near Besham city, approximately 10 km from the terminal tower of the PEDO-constructed transmission line and the Karora HPP. Besham city is accessible via N-35 and N-90, which are well-suited for heavy transportation and industrial development. The selected investor will need to construct access roads, as well as sewerage and rainwater drainage systems.

Considering the land requirements identified by respondents range from 2 to 10 acres for a single investor, land option-I is about 5 Acres that will involve minimum direct lines and regulatory approvals, while land Option-II can accommodate large or combination of 2-3 industrial units or even more. However, Option-2 will be time consuming from an interconnection perspective, as existing interconnection scheme with the national grid might require change.

6.3 ELECTRICY PRICE EXPECTATIONS

Most respondents indicated their electricity price expectations as a percentage discount from the grid electricity price, while a few provided expected prices in absolute terms. Assuming an average B3 industrial tariff of PKR 38.64 per kWh, these prices have been converted to a discount from the grid electricity price for consistency in the dataset, as shown in the table below.

Table 6.2: Industry's Price Expectations for Karora HPP

No.	Respondent	Discount to Grid Electricity Price
1.	Dynamic Engineering and Automation	50% - 60%
2.	Ihtisham Steel Mills Pvt Ltd	50%
3.	Gul Shahzada Steel Mills	60% - 70%
4.	M/S Abaseen Steel Re - Rolling Mills Pvt LTD	75% - 80%
5.	Amjad Jamil and Company	85% - 90%
6.	M/S Jadoon Metal Works (Pvt) Ltd	75% - 80%

In the next phase of the assignment—financial analysis and transaction structuring—the effective generation tariff expectations for Karora HPP will be calculated based on these discounts. This will be compared with Karora HPP's NEPRA-determined, indexed tariff to establish a bidding floor price, assess PEDO's potential returns, and evaluate the financial flexibility available to offer discounted rates to the industry.

7. MACHAI HPP

7.1 OVERVIEW OF INDUSTRY RESPONSE

Machai Hydropower Plant, with a capacity of 2.6 MW, employs a run-of-river design. It operates with a design discharge of 40 m³/sec and a net head of 7.88 m, utilizing a 1.5 km channel to annually generate 15.784 GWh of energy. The HPP has received nine RFI submissions, with eight parties proposing industrial projects in the steel sector, while one party has shown interest in establishing greenfield facilities for either hydrogen production, solar cell manufacturing, and / or mobile circuit production.

The nine interested parties suggest potential investments ranging from Rs 2.1 billion to Rs 3 billion; however, this estimate may be understated, as not all respondents have provided investment information. The total land requirement for these industrial entities is between 31 and 44 acres, with a few respondents indicating that they will secure the necessary land independently.

However, it is anticipated that the project will not be able to accommodate all interested parties; thus, the electricity generated from the plant may be supplied to a single investor or a select few. Based on this scenario, the project is expected to mobilize investments of less than Rs 1 billion, due to its size and may land requirement may be up to 20 acres adjacent to the hydropower plant. The land requirement for individual industrial units varies from 1 to 18 acres.

A summary of responses from interested parties is provided hereunder:

Table 7.1: Summary of RFI respondents for Machai HPP

No.	Respondent	Sector / Industry	Description of Project Concept	Production Capacity / Size	CAPEX Rs Billion	Land Requirement and Interconnection Arrangements
1.	JDS Engineering Works & Construction Company	Steel	4. I.Steel production – ***Greenfield project***	• 50 ton per day	N/A	•2 acres. •Industrial player to develop, finance, own and construct the interconnection facility including transmission line.
2.	Alliance Engineering & Trading Co	Steel	I.Steel production – ***Greenfield project***	• Production on demand	0.10-0.30	• 1 acre •Industrial player to develop, finance, own and construct the interconnection facility including transmission line. •
3.	BM Steel and Re Rolling Mill	Steel	1. Steel re rolling and melting – ***Brownfield project***	• 24,000 metric tons	N/A	•12 –18 acres.
4.	Sohail Khan Builders Pvt LTD	Steel	1. Steel re rolling and melting – ***Greenfield project***	N/A	N/A	•Investor's arrangement of land PEDO to own, develop, finance and construct the interconnection facility (including transmission line) and charge a transmission tariff (as determined by NEPRA) from the industrial facility in addition to the generation tariff.
5	MIGCO - Pakistan	Steel	I.Steel production – ***Greenfield project***	N/A	N/A	•Investor's arrangement of land • PEDO to own, develop, finance and construct the interconnection facility (including transmission line) and charge a transmission tariff (as determined by NEPRA) from the industrial facility in addition to the generation tariff.
6.	YAR Steel Mills	Steel	I.Steel bar manufacturing – ***Greenfield project***	15,000 metric tons	N/A	• 1 acre. The party will develop, finance, own and construct the

No.	Respondent	Sector / Industry	Description of Project Concept	Production Capacity / Size	CAPEX Rs Billion	Land Requirement and Interconnection Arrangement
						interconnection facility including transmission line.
7.	Axol Impex (pvt) Ltd	Steel	1. Steel re rolling and melting – ***Brownfield project***	N/A	1.5 - 2	•2 acres. PEDO to own, develop, finance and construct the interconnection facility (including transmission line) and charge a transmission tariff (as determined by NEPRA) from the industrial facility in addition to the generation tariff.
8	Nashat Group of Industry	Steel and mining	Rolling Mills and mining – ***Greenfield project***	N/A	N/A	• Own arrangement for Land • Industrial player to develop, finance and construct the interconnection facility (including transmission line) and hand over the operations of the interconnection facility (including ownership) to PEDO or an associated entity of the GoKP with the cost of the facility adjusted in future tariff payments for the electricity to be provided by the selected PEDO HPP.
9.	Total Dynamic System	Information Technology / Electronics / Energy	1. Solar Cells manufacturing– ***Greenfield project*** 2. Hydrogen manufacturing – ***Greenfield project*** 3. Mobile circuit manufacturing– ***Greenfield project***	• 200 MW Solar cells manufacturing facility. • 50000 metric tons hydrogen, 20000 mobile circuits	0.5 - 0.7	•5 –10 acres. The party is willing to finance and construct the interconnection facility and is open to either owning and operating the transmission line or transferring it to the GoKP, with the cost to be adjusted in future tariff payments for electricity.

Note: Greenfield projects denote new industrial units while brownfield projects denote proposed relocation of existing units

7.2 LAND REQUIREMENT AND INTERCONNECTION ARRANGEMENTS

The Supply-Side Assessment identified two main land options in Machai HPP's vicinity:

Land Option I: Land can be acquired near the Machai HPP, but it is currently used for agriculture, making it (i) costly to purchase and (ii) prone to environmental concerns that could delay the project. However, can be taken on lease by respective investors.

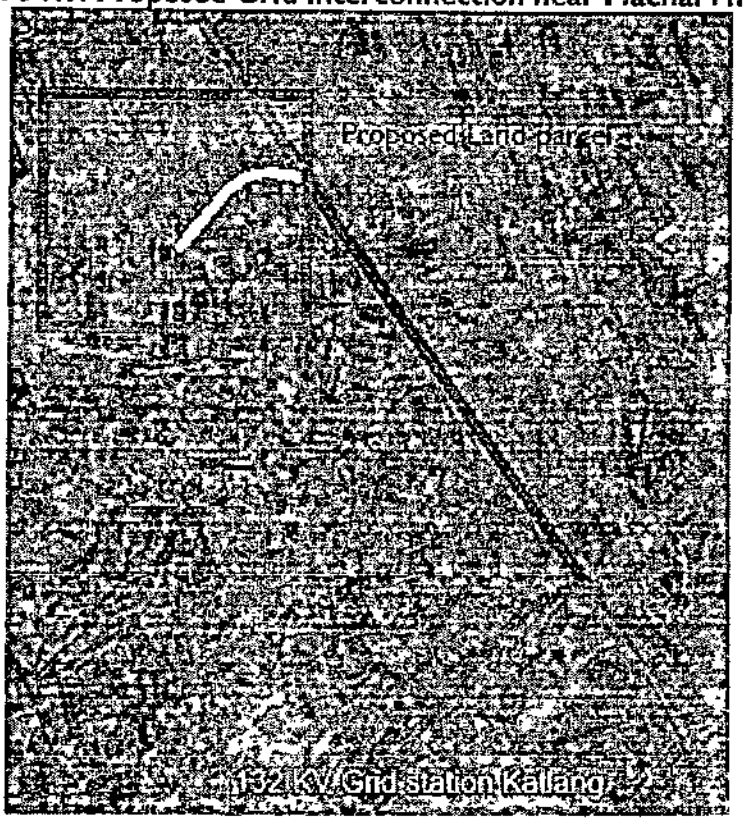
A potential investor would need to establish a direct connection to the Machai HPP, likely requiring a new transmission line from the plant to the adjacent land parcel. In this scenario, the existing PESCO line may not be utilized, and the industrial unit would instead be connected directly to the HPP's outgoing bus bar. This will allow exit and resumption of EPA with national grid at any time.

Land Option II: Land is available within a 5-kilometer radius of the 132KV Katlang grid station, running parallel to the Swat motorway. While this land is expected to be cheaper than agricultural land, it is still likely to be expensive due to its prime location. Large parcels are available in the areas marked in red in the figure below, located approximately 5 kilometers beyond the 132KV Katlang grid station. If this site is selected by an investor, a new transmission line may need to be built from the terminal pole of PEDO's existing 11kV line near the grid station.

This line is anticipated to first extend along Katlang road, then run parallel to the Swat motorway, and finally connect to the investor's land parcel (see figure below). Please note, this alignment is

based on an assumed investor preference; the final transmission line route and requirements will depend on the investor's actual needs.

Figure 7.1: Proposed Grid Interconnection near Machai HPP



Considering the land requirements identified by respondents, which range from 1 to 18 acres, both Land Options I and II can accommodate 1-2 smaller industrial units or a large industrial unit.

7.3 ELECTRICY PRICE EXPECTATIONS

Most respondents indicated their electricity price expectations as a percentage discount from the grid electricity price, while a few provided expected prices in absolute terms. Assuming an average B3 industrial tariff of PKR 38.64 per kWh, these prices have been converted to a discount from the grid electricity price for consistency in the dataset, as shown in the table below.

Table 7.2: Industry's Price Expectations for Machai HPP

No.	Respondent	Discount to Grid Electricity Price
1	JDS Engineering Works & Construction Company	Not Provided
2.	Alliance Engineering & Trading Co	50%
3.	BM Steel and Re Rolling Mill	90%
4.	Sohail Khan Builders Pvt Ltd	Not Provided
5	MIGCO - Pakistan	Not Provided
6.	YAR Steel Mills	60% - 70%
7.	Axol Impex (pvt) Ltd	60% - 80%
8.	Nashat Group of Industry	Not Provided
9.	Total Dynamic System	40% - 65%

In the next phase of the assignment—financial analysis and transaction structuring—the effective generation tariff expectations for Machai HPP will be calculated based on these discounts. This will

be compared with Machai HPP's NEPRA-determined, indexed tariff to establish a bidding floor price, assess PEDO's potential returns, and evaluate the financial flexibility available to offer discounted rates to the industry.

8. SHISHI HPP

8.1 OVERVIEW OF INDUSTRY RESPONSE

Shishi Hydropower Plant (HPP), with a capacity of 1.875 MW, is situated on the Shishi River, a tributary of the Chitral River, near Darosh town in lower Chitral. Darosh is the first major town on the Peshawar to Chitral road, just past the Lowari Top in Chitral district. The plant utilizes a run-of-river design, with a design discharge of 3 m^3/sec and a net head of 148 m, operating through a 3.8 km channel to generate 14.634 GWh of energy annually.

The HPP has received three RFI submissions. Two private parties have proposed industrial projects in the steel and textile sectors, while the Khyber Pakhtunkhwa Economic Zones Development and Management Company (KPEZDMC), a GoKP entity, has expressed interest in using direct supply from Shishi HPP for its proposed Chitral Economic Zone, aimed at supporting marble and food processing enterprises.

None of the respondents have provided capex information, making it impossible to quantify potential investments at this stage. Additionally, while the two private parties have not disclosed their land requirements, KPEZDMC has indicated a need for 40 acres, which they plan to secure / have secured independently.

It is anticipated that the Shishi HPP will not be able to meet the electricity needs of all interested parties. Therefore, the generated power may be allocated to KPEZDMC's Chitral Economic Zone through a framework agreement between the two KP government entities. Since both Shishi HPP and KPEZDMC are KP government-owned, a competitive procurement process for selecting investors might not be required in this case. The framework agreement will clearly define the roles and responsibilities of both entities.

A summary of responses from interested parties is provided hereunder:

Table 8.1: Summary of RFI respondents for Shishi HPP

No.	Respondent	Sector / Industry	Description of Project Concept	Production Capacity / Size	CAPEX Rs. Billion	Land Requirement and Interconnection Arrangement
1.	Mukhtiar Engineering Works (Pvt.) Limited	Steel	Manufacturing of MS grade scrape melting and billets – ***Greenfield project***	13,000 metric ton	Not provided	• 1 acre • The party has not specified a preference for interconnection arrangement structure
2.	Prime Traders	Steel	Steel production – ***Greenfield project***	1,900 – 2,000 metric tons	Not provided	• 1.5 acres The party has not specified a preference for interconnection arrangement structure
3.	KPEZDMC	Economic zones development and management	Chitral Economic Zone – marble & food processing – ***Greenfield project***	Not provided	Not provided	• 40 acres • The party is amenable to either owning, financing, and constructing the interconnection facility themselves or allowing PEDO to handle the construction, with a transmission tariff added to the generation tariff for electricity supplied

Note: Greenfield projects denote new industrial units while brownfield projects denote proposed relocation of existing units

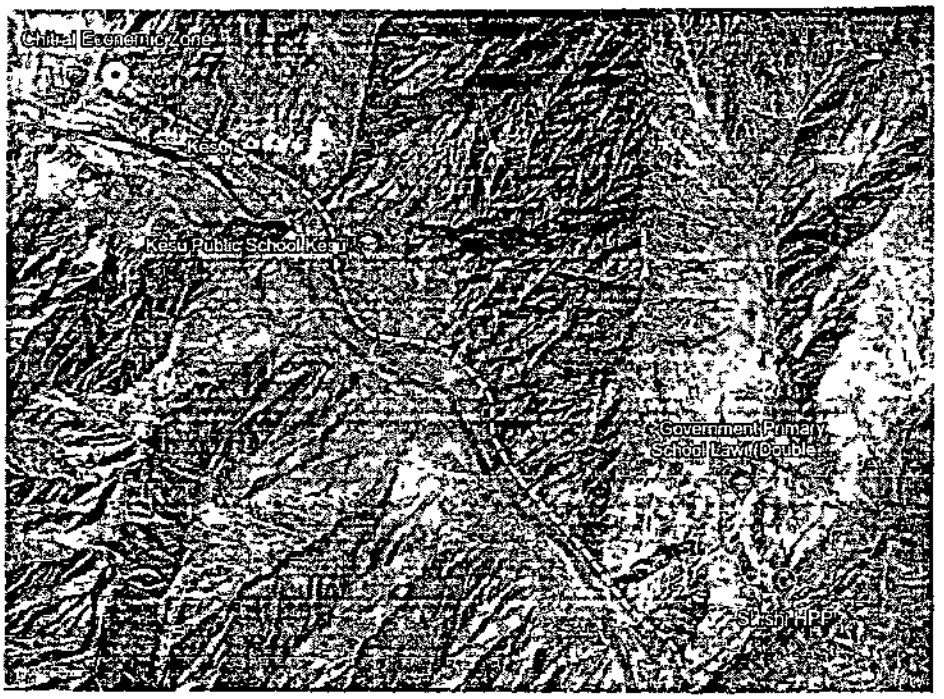
8.2 LAND REQUIREMENT AND INTERCONNECTION ARRANGEMENTS

Land Option 1: The Chitral Economic Zone (40 acre), owned by KPEZDMC, has an aerial distance of approximately 8.0 km from the Shishi Grid Station and is closer to Drosh grid station.

To connect the Shishi HPP to the Chitral Economic Zone, there are two options: (a) construct a new 11 km transmission line between the HPP and the economic zone, or (b) extend a 13 km line

from the terminal tower near the Drosh grid station to the economic zone. After an initial review, constructing a completely new line along the Chitral Road appears to be the more viable option. The development and operational modalities for this route should be discussed and agreed upon with KPEZDMC.

Figure 8.1: Proposed Grid Interconnection for Chitral Economic Zone with Shishi HPP



8.3 ELECTRICY PRICE EXPECTATIONS

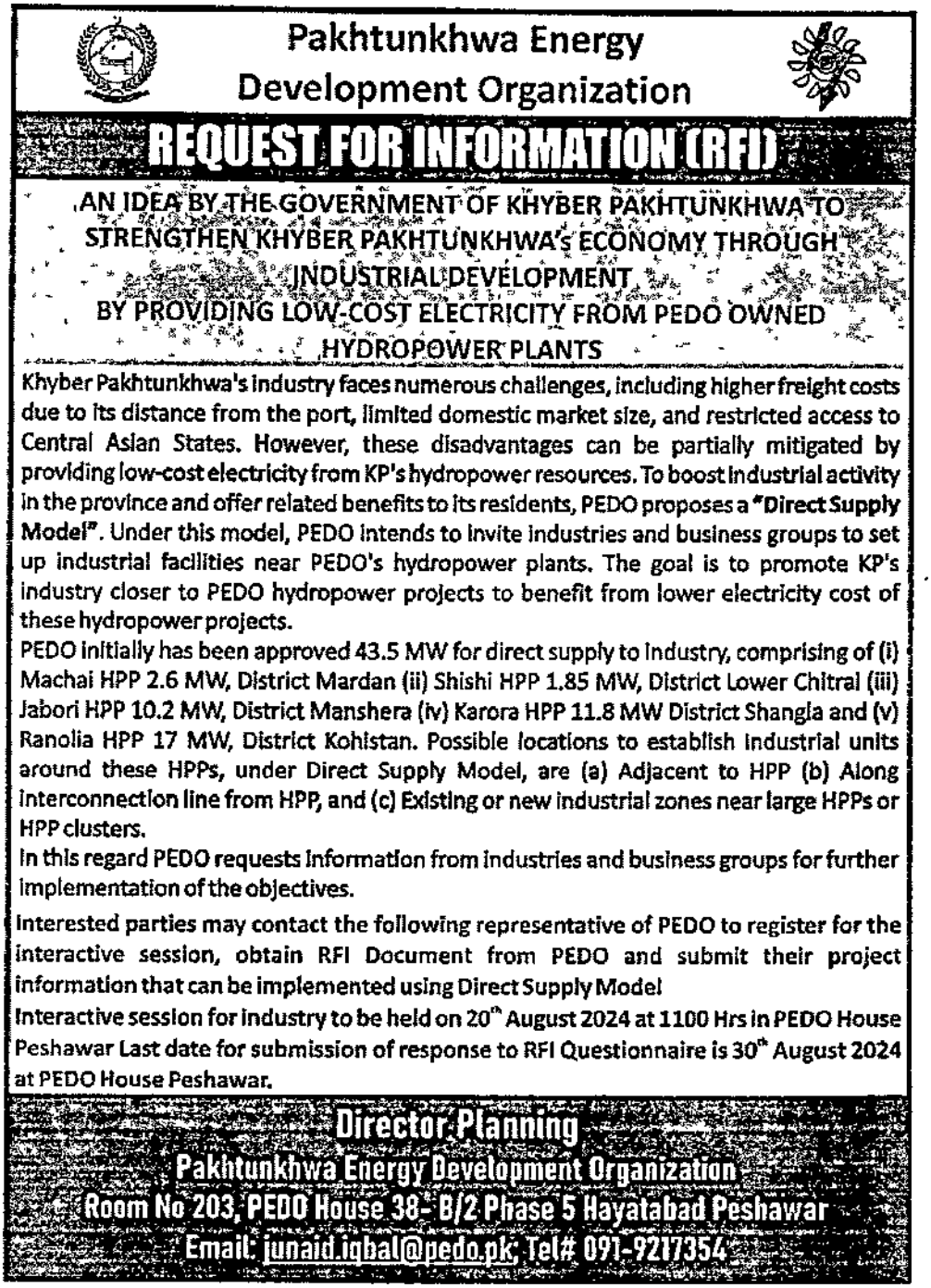
Most respondents indicated their electricity price expectations as a percentage discount from the grid electricity price, while a few provided expected prices in absolute terms. Assuming an average B3 industrial tariff of PKR 38.64 per kWh, these prices have been converted to a discount from the grid electricity price for consistency in the dataset, as shown in the table below.

Table 8.2: Industry's Price Expectations for Shishi HPP

No.	Respondent	Discount to Grid Electricity Price
1.	Mukhtiar Engineering Works (Pvt.) Limited	75%
2.	Prime Traders	Not Provided
3.	KPEZDMC	70%

In the next phase of the assignment—financial analysis and transaction structuring—the effective generation tariff expectations for Shishi HPP will be calculated based on these discounts. This will be compared with Shishi HPP's NEPRA-determined, indexed tariff to establish a bidding floor price, assess PEDO's potential returns, and evaluate the financial flexibility available to offer discounted rates to the industry.

ANNEXURE-1: RFI ADVERTISEMENT



Pakhtunkhwa Energy
Development Organization

REQUEST FOR INFORMATION (RFI)

AN IDEA BY THE GOVERNMENT OF KHYBER PAKHTUNKHWA TO STRENGTHEN KHYBER PAKHTUNKHWA's ECONOMY THROUGH INDUSTRIAL DEVELOPMENT BY PROVIDING LOW-COST ELECTRICITY FROM PEDO OWNED HYDROPOWER PLANTS

Khyber Pakhtunkhwa's industry faces numerous challenges, including higher freight costs due to its distance from the port, limited domestic market size, and restricted access to Central Asian States. However, these disadvantages can be partially mitigated by providing low-cost electricity from KP's hydropower resources. To boost industrial activity in the province and offer related benefits to its residents, PEDO proposes a **"Direct Supply Model"**. Under this model, PEDO intends to invite industries and business groups to set up industrial facilities near PEDO's hydropower plants. The goal is to promote KP's industry closer to PEDO hydropower projects to benefit from lower electricity cost of these hydropower projects.

PEDO initially has been approved 43.5 MW for direct supply to industry, comprising of (i) Machai HPP 2.6 MW, District Mardan (ii) Shishi HPP 1.85 MW, District Lower Chitral (iii) Jabori HPP 10.2 MW, District Manshera (iv) Karora HPP 11.8 MW District Shangla and (v) Ranolia HPP 17 MW, District Kohistan. Possible locations to establish industrial units around these HPPs, under Direct Supply Model, are (a) Adjacent to HPP (b) Along interconnection line from HPP, and (c) Existing or new industrial zones near large HPPs or HPP clusters.

In this regard PEDO requests information from industries and business groups for further implementation of the objectives.

Interested parties may contact the following representative of PEDO to register for the interactive session, obtain RFI Document from PEDO and submit their project information that can be implemented using Direct Supply Model

Interactive session for industry to be held on 20th August 2024 at 1100 Hrs in PEDO House Peshawar Last date for submission of response to RFI Questionnaire is 30th August 2024 at PEDO House Peshawar.

Director Planning
Pakhtunkhwa Energy Development Organization
Room No 203, PEDO House 38- B/2 Phase 5 Hayatabad Peshawar
Email: junaid.iqbal@pedo.pk; Tel# 091-9217354

15x3

ANNEXURE-II: LIST OF THE INDUSTRIES/GROUPS COLLECTED RFI DOCUMENT

S. No	Name of the Industries/Groups	Name of the Focal person	Location	Sector	Industry Type	Email	Contact No
1	Higgs Computing Limited, Ras Al Khaimah, UAE	Mr. Afaque Riaz Ahmed	UAE	Information Technology	Data Processing	afaque@higgs.ae	92-345-222204
2	GRC Peshawar	Mr.Tabish Ayub	KPk	Services	Civil Contractors	tabish_shaur@yahoo.com	92-335-929016
3	Pak Steel Re-Rolling Mills	Niazi, Rashid	KPk	Manufacturing	Steel Casting & Rerolling	niazi@paksteel.com	92-334-555528
4	Wah Nobel Group	Mr. Farrukh Mansoor Malik	KPk	Manufacturing	Oil & Gas, Chemicals etc	farrukhmansoor@wahnobel.com	-
5	Sapphire Group	Mr. Talha Tariq	KPk	Manufacturing	Cement	talha.tariq@sapphirefibres.com	92-323-411708
6	Jadoon Group of Industries	Mr. Ameer Hamza	KPk	Manufacturing	Alloy / Metal Processing	jansonstextilemills@yahoo.com	92-345-244443
7	Abaseen Steel Rolling	Mr. Ameer Hamza	KPk	Manufacturing	Steel Rerolling	jansonstextilemills@yahoo.com	92-345-244443
8	Dilroze Khan Company	Mr. Dilroze Khan	KPk	Manufacturing	Steel Rerolling	dilrozekhan2699@gmail.com	92-313-859606
9	Sarhad Chamber of Commerce & Industry,	Mr. Muqtasid Ahsan Seretary General	KPk	Association	Chamber of Commmerce KP	sccip.psh@gmail.com	091-9225413-5
10	Tarbella Steel-rolling	Mr. Fazal Rahim	KPk	Manufacturing	Steel Rerolling	tarbellasteel@yahoo.com	92-93-8270476 92-300-568094
11	Malakand Steels	Mr. Waqas Shinwari	KPk	Manufacturing	Steel Rerolling	waqas.shinwari@sngpl.com.pk	-
12	Nashat Group of Industry	Mr. Muhammad Fayaz	KPk	Manufacturing	Steel Casting	muhammadfayaz2116@gmail.com	92-336-717656
13	Chinar Group	Mr. Liaqat Sultan	KPk	Services	Civil Contractors	Liaqatalisultan87@gmail.com	92-300-022291
14	Khyber Foundry	Mr. Sherbzjan Afridi	KPk	Manufacturing	Steel Casting & Rerolling	sherbazjanafridi@gmail.com	92-313-856565
15	FF Steel	Mr. Junaid Iftikhar	KPk	Manufacturing	Steel Casting & Rerolling	junaid.iftikhar@ff.com.pk	92-345-671088
16	Baju Hydrotech/Axol Implex (Pvt) LTd	Mr. Siddiq Khan	KPk	Suppliers	Metals	siddiqkhan1@yahoo.com	92-333-9104171
17	Peshawar Power Company	Mr. Sheharyar Arbab	KPk	Services	Private Consulting Firm	sherarbab@gmail.com	92-335-817777
18	Yar steel	Mr. Ameer Rehman	KPk	Manufacturing	Steel Casting	yarsteel2017@gmail.com	92-333-3063153
19	Swabi Chamber of Commerce	Mr. Muhammad Salman Khan	KPk	Association	Chamber of Commmerce, Swabi	sccl.swabi@swabichamber.org.pk	92-300-503041
20	Bilal Khan steel Mill	Mr. Bilal Khan	KPk	Manufacturing	Steel Rerolling	bilalkhansteelmill@gmail.com	-
21	Pak Premire Steel	-	KPk	Manufacturing	Steel Rerolling	pakpremiersteelmill@gmail.com	-
22	Slaman Khel steel	Mr. Salman Khan	KPk	Manufacturing	Steel Rerolling	salmankhansteelmill@gmail.com	-
23	KPTMA	Mr. Iftikhiar	KPk	Association	Textile Manufacturing Association, KP	iftikhar_97@yahoo.com	92-300-835541
24	Dawn global Solutions	Mr. Javed Iqbal	KPk	Information Technology	IT Solutions	javed@dawnglobal.net	92-333-974846
25	Energy Future consulting	Miss Maryam Arshad	KPk	Services	Private Consulting Firm	maryiam.arshad@energyfuturesconsulting.com	92-334-336087
26	Star Connect SMC Pvt Ltd	Mr. Asif Ullah	KPk	Manufacturing	Steel Casting & Rerolling	busybeebuilders@hotmail.com	92-345-979686
27	Private Flour Mill	Mr. Abdullah Khan	UAE	Manufacturing	Steel Casting	khan9306869@gmail.com	92-300-907860
28	Swati Corporation	Mr. Saleem Swati	KPk	Information Technology	IT Solutions	Saleemswati@gmail.com	92-315-714000
29	Prime Steel Industry	Mr. Ali Man Shah	KPk	Manufacturing	Knives Manufacturing	aq6679@gmail.com	92-304-771745
30	BM Steek Mill	Mr. Abdul qadeer	KPk	Manufacturing	Steel Rerolling	qadeerexecutive2662@gmail.com	92-301-430226

S. No	Name of the Industries/Groups	Name of the Focal person	Location	Sector	Industry Type	Email	Contact No
31	Prime Traders	Mr. Shams ur Rehman	KPk	Suppliers	Trading IT Equipment	corrundumruby@gmail.com	92-304-771745
32	Aziz GRP	Mr. Imran Qadir	KPk	Manufacturing	Textile, Match & Board Maufacturing	imran.qadir@azizgrp.com	92-333-575959
33	KPBOIT	Mr. Haider Asfandyar	KPk	Services	Public Sector - BOI, KP	engr.haider@kpboit.gov.pk	92-345-940528
34	HA Consulting	Mr. Faheem	KPk	Services	Private Consulting Firm	faheem@haconsulting.co	-
35	Renewable Resource PVT LTD	Mr. Salman	KPk	Services	Private Consulting Firm	salman@renewableresources.com.pk	92-320-664464
36	Nomee Steel	Mr. Javed Iqbal lodhi	KPk	Manufacturing	Steel Rerolling	javaidlodhi1956@gmail.com	92-345-852676
37	Apex Energy Limited	Mr. Usama	KPk	Services	Private Consulting Firm	usama@apexenergyltd.com.pk	92-321-511159
38	JR Rolling Islamabad	MR. Sardar Khan	KPk	Manufacturing	Steel Rerolling	sardarkhan@gmail.com	-
39	Total Dynamics System	Mr. Sheraz Khan	KPk	Services	Private Consulting Firm	sheraz.khan@tds.com.pk	92-333-840630
40	Hi Tech Pipe Engineering Industries	Mr. Mohsin Aslam Chohan	KPk	Manufacturing	Pipe Manufacturing	mohsin.chohan@hitechpipe.com	92-320-388061- 92-340-450380
41	Dynamic Engineering and Automation	Mr. Ahmed Kamal	KPk	Services	Engineering Automation & Supply Chain	ahmedkamal@dea.com.pk	92-336-901970
42	Kamran Commercial Pvt Ltd/ Precision Engineering Ltd/Alaris Trading Corporation	Mr. Anis Gul	Punjab Lahore	Manufacturing	Ghee, Steel, Tractor parts	kamran_commercials@hotmail.com	92-42-3628568
43	MIGCO Pvt. Ltd	Mr. Mohammd Islam Ghazi	KSA	Services	Civil Contractors	migco.pk@gmail.com	92-311-610626
44	ARF Group	Mr. Muhmmad Nouman	USA	Suppliers	Logistics, agriculture, meet & poultary	nauman@arf.group	92-321-278660
45	ALLIANCE ENGINEERING AND TRADING CO.	Mr. Atif Hussain Shah	Punjab Sheikhupura	Services	Energy Systems Services	alliancetraders321@gmail.com	92-321-482932
46	Sohail Khan & brothers Pvt Ltd	Mr. Javed Khan & Dalil Khan	KPk	Services	Civil Contractors	javedkhanskb1@gmail.com	92-334-322205;92-3129322205
47	Brothers Oil & Ghee Mills and KAM Foods Industry (Private) Ltd	Mr. Khalid Islam	KPk	Manufacturing	Edible Oil & Ghee	ho.kkgroup@gmail.com	-
48	AJ Polymers	Mr. Adil Nawaz	KPk	Manufacturing	Pet Bottle Maufacturing	isfmardan@icloud.com	92-345-999240
49	Fauji Cement Company Ltd	Mr. Tahir Hayat	Punjab, Rawalpindi	Manufacturing	Cement	tahir.hayat@fccl.com.pk	92-315-439216
50	Gul Shehzada Steel Mill	Mr. Mudassar Khan	KPk	Manufacturing	Steel Rerolling	gssmdargai@gmail.com	92-313-966686
51	Sher Steel Furnace & Re-Rolling Mills	Mr. Shoaib Khan	KPk	Manufacturing	Steel Casting & Rerolling	ssfrm01@yahoo.com	0932-331530
52	Saif Textile Mills Limited (APTMA)	Mr. Ashfaq Ahmad	KPk	Manufacturing	Textile - Yarn		92-938-270313
53	Kohat Textile Mills (KPTMA)	Mt. Muhammad Ashraf	KPk	Manufacturing	Textile - Yarn		92-91-5843870
54	JDs Pump		KPk	Suppliers	Pump Suppliers	jdspump@yahoo.com	
55	Ihtisham Steel Mills	Mr. Imad hussain	KPk	Manufacturing	Steel Casting	ihtishamsteel@gmail.com	92-346-913617
56	Zia Steel Rolling Mills	Mr. Nadeem Hussain	KPk	Manufacturing	Steel Rerolling	ziasteel@hotmail.com	92-311-770000
57	Mukhtiar Engineering Works Priavte Limited	Mr Khadim Hussain	KPk	Services	Steel Engineering Works	khadim777@yahoo.com	92-300-572896
58	Gadoon Textile Mills Ltd	Mr. Asad Ansari	KPk	Manufacturing	Textile - Spinning	asad.ansari@gadoontextile.com	92-938-270763
59	KPEZDMC	Mr. Amir Marwat	KPk	Services	Public Sector- Economic Zones, KP		92-91-5810155
60	Amjad Jameel & Company	Mr. Amjid Shah	KPk	Suppliers	Steel Trading	sananafridi2662@gmail.com	92-301-430226

ANNEXURE-III: ATTENDANCE AT RFI INTERACTIVE SESSION

ATTENDANCE SHEET

INTERACTIVE SESSION ON "REQUEST FOR INFORMATION" (RFI) FOR PROVIDING LOW-COST ELECTRICITY FROM PEDO-OWNED HYDROPOWER PLANTS TO INDUSTRIES

S. No	Name	Designation	Organization	Email	Contact #	Signatures
1	AFAQUE RIAZ	CFO	Higgs Computing	AFAQUE@Higgs.pk	0345-2222040	
2	M. ANWAR KHAN	Resident Director	Chirat Packaging			
3	Raza Hussain	DGM	Chirat Cement Ltd	raza.hussain@gfg.com.pk	0300-5308388	
4	Khurram Abid	Sr. Engr	Chirat cement company Ltd.	khurram.abid@gfg.com.pk	0331 5058660	
5	Muhammad Abid	Director O&M	PEDO	engrabid@gmail.com	0345-9520675	
6	Azaz Rafiq	Member Renewable	PEDO		0345-5102280	
7	Mahmood Ahmad	Dir(E)	PEDO		03339174178	
8	Sajjad Hussain	HOD Legal	Saif Group		1374 0300-54	
9	Sohail Zaib	Director	Bridge	sohail@bridge.pk	0334-8766556	
10	Syed Habibullah	CEO	PEDO			
11	Tila M. Khan	Admin	KP Trans Corp	tm.khan@pdo.pk	091-9210741	
12	Ihtisham Ullah	Secretary	KPTMA	ihtisham47@yahoo	0300-8355414	
13	Dr. Siddiqullah	Director	PEDO	siddiqullah@yahoo.com	0333 9104170	
14.	Jawad Haider	CE(O&M)	PEDO.			
15	Qamar Zia	DD(O&M)	PEDO			
16	Mehmood Khan Afridi	Chairman	AFE Energy			
17	M. AYUB	CEO	PRTEC			
18	Engr Mazrullah	Member	PEDO			
19	Muhammad Shoaib Shah	GM	GRC	03017901079		

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ATTENDANCE SHEET						
INTERACTIVE SESSION ON "REQUEST FOR INFORMATION" (RFI) FOR PROVIDING LOW-COST ELECTRICITY FROM PEDO-OWNED HYDROPOWER PLANTS TO INDUSTRIES						
S. No	Name	Designation	Organization	Email	Contact #	Signatures
20	HAMOOD-Ur-Rahman	Member Finance	PEDO		0308-52[illegible]	[signature]
21.	Ubaid Rahman	DD-Finance	PEDO			[signature]
22-	Nasir Afridi	DD (Dev)	PEDO			[signature]
23	S. Hameedullah Shah	M(Admin)	Chemical Packaging	hameedullah.shah@[illegible]	0345 7171773	[signature]
24	Junaid Iqbal	Dir (P)	PEDO	-	0333 11027 [illegible]	[signature]
25.	Sohail Anjum	Secretary	Sarhad Chamber		0334 9249637	[signature]
26	Salis Usman	Consultant	PPI/Factor Bridge	salis@powerplanet.com	0334 9703178	[signature]
27	Syed Muhammad Shaharyar	PPP Analyst	SEED	syed.shaharyar@seed-pk.com	0333 9112229	[signature]
28	Sohail Shah	CEO	Al-Falah Steel furnace	shah.sohail232@gmail	0311 9601137	[signature]
29	Falah Qaiser	GM	Star connectivity	falah.qaiser@gmail.com	0331-850900	[signature]
30.	Aamir Saeed	AD(P&M)	PEDO	—	—	[signature]
31.	Zahid Ali	COO	A.J. Textile	zahid.ali@[illegible]	0321-900143	[signature]
32	KHALID HUSSAIN	GM(C)	KTM	KHUSSAIN@[illegible]	0300-8561601	[signature]
33	Mu (JAHID) Islam	Co-Founder	Eco Power Solutions	[illegible] scholar.ali@gmail.com	0313630 7756	[signature]
34	Engr. Haider Asfandiyar	Manager Infra	KPBoIT	engr.haider@kpboit.gov.pk	0345-9405282	[signature]
35	Junaid Iflikhar	HOW	FF Steel	junaid.iflikhar@ffcom.pk	0345[illegible]	[signature]
36	Waheed Ahmed	Dir Co	PEDO	waheedahmed[illegible]@gmail	0344-[illegible]	[signature]
37	Luqman Hakeem	SPO-E&P	SPO-E&P	-	-	[signature]
38	Syed Asad Ali Shah	SPRO	PEDO E&P Deptt	asad.shah[illegible]@gmail.com	0333-9173478	[signature]

ATTENDANCE SHEET						
INTERACTIVE SESSION ON "REQUEST FOR INFORMATION" (RFI) FOR PROVIDING LOW-COST ELECTRICITY FROM PEDO-OWNED HYDROPOWER PLANTS TO INDUSTRIES						
S. No	Name	Designation	Organization	Email	Contact #	Signatures
39	Amjid Khadim	PEDO	Media officer	amjid.khadim@gmail.com	0333-9011800	[signature]
40	Amber Rafi	Associate	SEED			[signature]
41	Kamran Khan	Chief PSD	PSDD	—	—	[signature]
42	Rajan Ullah	C/A	Evonies Pesh (PA) Ltd	durrcura@hotmail.com	0332-9208360	[signature]
43	Sherbaz	Director	Khyber Foundry			[signature]
44	Rahmatullah	Manager Regulatory	Ferozsons Labs Nowshera	rahmat-ooziv@ferozsons-labs.com	0345-8850333	[signature]
45	Dilroze	CEO			0313-8586665	[signature]
46	Arif Hussain	AM Energy	KPEZDMC		03009085602	[signature]
47	Ahmed Aziz	Brigade				[signature]
48	Basar Naeem	Analyst	Bridge factory			[signature]
49	Mustajab Khan	Social Mobalizer	HA Consulting	mustajabk311@gmail.com	0317-9932697	[signature]
50	Arrijad Khatak	Prof	UET Pesh	arrijad6700@gmail.com	0321915 8715	[signature]

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ATTENDANCE SHEET						
INTERACTIVE SESSION ON "REQUEST FOR INFORMATION" (RFI) FOR PROVIDING LOW-COST ELECTRICITY FROM PEDO-OWNED HYDROPOWER PLANTS TO INDUSTRIES						
S. No	Name	Designation	Organization	Email	Contact #	Signatures
1	Asad Ansari	Tech Dir	Gadoon Textile	asad.ansari@gadoontextile.com	0321-2008420	
2.	M. Usman	Mgr Com	"	mmpp@gadoontextile.com	03471-0884154	
3	A. Qadeer	CEO	BM Steel	qadeerafridi@gmail.com	03047[illegible]	
4	Bilal Khan	CEO	Arvil Jamil and Co	BIC774[illegible]@gmail.com	03[illegible]	
5	[illegible]Sif	CEO	Starcancel	Busybee[illegible]	[illegible]03450[illegible]	
6	M-Wafas	PM	AJ Textile	M.wafas@[illegible].com	03[illegible]688	
7	[illegible]	Owner	[illegible] Steel	[illegible]Steel[illegible]	03009[illegible]3662[illegible]	
8	[illegible]	PD	PEDO		03339242325	
9	[illegible]	P.D	P.EDO		0314-545222.	
10	Hamad	RM	PEDO	[illegible]@gmail.com	033[illegible]80868	
11	M. Haris Bangash	AM	PEDO	harisbangash2@gmail.com	0333-9426480	
12	Zarak Khan	CEO	FF Steel	ZKaff.com.pk	03008560439	
13	Fayyaz Jamal	ED	FF Steel	cboff.com.pk	03400710000	
14	Khurram Ali Shah	Head Finance	FF Steel	khurram.ali@ff.com.pk	03000301227	
15	Junaid Iftikhar	Head Works	FF Steel		03456710888	
16.	Amir Marwat	Kpcl	Manager	amir.marwat@kpcl.gop.pk	03028771502	
17.	M. Hafeez Ur Rehman	Engineer	S/Plant	engineers@gmail.com	0332536318	
18.						

INTERACTIVE SESSION ON "REQUEST FOR INFORMATION" (RFI) FOR PROVIDING LOW-COST ELECTRICITY FROM PEDO-OWNED HYDROPOWER PLANTS TO INDUSTRIES						
S. No	Name	Designation	Organization	Email	Contact #	Signatures
1.	[illegible]	Manager	[illegible]	[illegible]	0316-90 91014	[signature]
2	Nadeem Anw	Ex CE	PESCO	Engnadeem [illegible]	0300 9595011	[signature]
	Azw Ali	SQA	SQA			
	[illegible]	SQA				
	ZULFIQAR ALI	S.V.P	Swabi Chamber and Commerce		03008581516	[signature]

ANNEXURE-IV: LIST OF RESPONDENTS ON RFI QUESTIONNAIRE

Name of the organization / industry / business group:	Respondent's name:	Designation:	Contact number:	Email:	Sector:	Region
Apex Energy Limited	Muhammad Raziuddin	CEO	0300-50001038	ceo@apexenergyltd.com.pk	Energy	Punjab
Star connect (SMC)	Asif Ullah	CEO	3459796862	busybeebuilders@hotmail.com	IT & Telecommunication, Trading and Manufacturing	KPK
Higs Computing Limited	Afaque Riaz Ahmed	CEO	0345-22222044	afaque@higgs.ae	IT Sector (Energy Intensive & High Performance Computing Data Center)	UAE
Zia Steel Re Rolling Mills	Arif Khan	Director Marketing	0300-8511443	ziasteel@hotmail.com	Manufacturing of MS Steel Bars	KPK
Abdul Rehman Faqeer Minerals (Pvt) Ltd	Muhammad Nauman Faqir	Director	0321-2786600	nauman@arf.group	Energy	Islamabad
Frontier Foundary Steel Ltd	Junaid Ifthikhar	Head of Works	0345-6710888	junaid.iftikhar@ff.com.pk	Steel	KPK
Pak Steel Re Rolling Mills	Hassan Farid	CEO	051-111725000	hf@paksteel.com or niazi@paksteel.com	Steel	Islamabad
Farid Steel Pvt Ltd	Hassan Farid	CEO	051-111725000	hf@paksteel.com or niazi@paksteel.com	Steel	KPK
M.A Steel Casting	Hassan Farid	CEO	051-111725000	hf@paksteel.com or niazi@paksteel.com	Steel	KPK
Pak Farid Steel Industries (PVT) Ltd	Hassan Farid	CEO	051-111725000	hf@paksteel.com or niazi@paksteel.com	Steel	KPK
Khyber Foundary	Sherbaz Jan Afridi	Director	0313-8565656/ 0345-8553838	sherbazjanafridi@gmail.com	Steel	KPK
Sher Steel Furnance & Re rolling Mills	Mudassar Khan	Manager	0313-9666869	ssformol@yahoo.com	Steel	KPK
Prime Steel Industry	Bilal Khan	Operational Manager/GM	03047717452/ 0302-8329191	khyberfarm123@gmail.com	Steel	KPK
Precision Engineering Ltd/ Alaris Trading Corp	Anil Gul	Chairman	0320-9473610	kamran_commercials@hotmail.com	Manufacturing & Processing of Metals & Mineral Ores	Punjab
Dynamic Engineering and Automation	Ahmad Kamal Uddin	Assistant Manager - Technical	0336-9019709	ahmedkamal@dea.com.pk	Engineering and Sales	Sindh
Ihtisham Steel Mills Pvt Ltd	Ghulam Hussain Bangash	CEO	0345-9544412 , 0333-9588444	ihtishamsteel@gmail.com	Steel	KPK
Gul Shahzada Steel Mills	Muhammad Adnan	Managing Director	3002211081	gulsteelmills@gmail.com	Steel	KPK

Name of the organization / industry / business group:	Respondent's name:	Designation:	Contact number:	Email:	Sector:	Region
Abaseen Steel Re - Rolling Mills PVT LTD	Rustam Khan Jadoon	CEO	0312-2067622 / 03009082330	abaseenrer@gmail.com	Steel	KPK
M/S Jadoon Metal Works (Pvt) Ltd	Hamid Khan Jadoon	CEO	0311-0296114, 0300-9082330	jadoonmetalworkso@gmail.com	Steel	KPK
JDS Engineering Works & Construction Company	Dalil Khan	CEO	0334-9322205/ 0312-9322205	JDSpump@yahoo.com	Construcution and Minerals	KPK
ALLIANCE ENGINEERING AND TRADING CO.	Peer Atif Hussain Shah	Owner	0321-4829321	alliancetraders321@gmail.com	Energy	KPK
BM Steel and Re Rolling Mill	Shah Jehan/ Faisal Khan	GM/Legal Advisor	0304 -7717452 / 0301 -4302266/ 0312 -4119662	qadeerexecutive2662@gmail.com	Manufacturing of steel	Islamabad
Sohail Khan Builders Pvt LTD	Javid Khan	CEO	0345-9331119	javidkhanskbl@gmail.com	Private	KPK
MIGCO - Pakistan	Muhammad Islam	Director	0311-6106262	fazalhamid49@yahoo.com	Private	KPK
YAR Steel Mills	Amir Rehman	Managing Director	0311-9355027	yarsteel2017@gmail.com	Steel	KPK
Axol Impex (pvt) Ltd	Muhammad Siddiq	CEO/ Director	3339104170	siddiqkhan1@yahoo.com	Steel	KPK
Amjad Jamil and Company	Fisal Khan/ Abdul Qadeer	General Manager (GM)	0301-4302266/ 03047717452	sanandfridi2662@gmail.com	Steel	KPK
Total Dynamic System	Sheraz Khan	Sr. Energy Specialist	0333-8406307	sheraz.khan@tds.com.pk	Energy	Punjab
Zia Steel Re rolling Mills	Nadeem Hussian	Director Operations	0311-7700008	ziasteel@hotmail.com	Manufacturing of MS Steel Bars	KPK
Gadoon Textile Mills Limited	Asad Ansari	Director	0938-270763	asad.ansari@gadoontextile.com	Textile	KPK
Saif Textile Mills Limited	Ashfaq Ahmad	GM Power	3008540095	ashfaq.ahmad@saifgroup.com	Textile	KPK
Kohat Textile Mills Limited	Muhammad Ashrf	D.G.M Power Plant	0334-8222152	muhammad.ashraf@saifgroup.com	Textile	KPK
Mukhtiar Engineering Works Pvt Ltd	Khadim Hussain	Director	0300-5729672	khadim777@yahoo.com	Electo Mechanical Works & Construction	KPK
KPEZDMC	Amir Marrawat	Manager Substations	0302-8771508	amir.marrawat	Public Sector	KPK
Prime Traders	Abdul Qadeer	GM/CEO	30447717452	corrundumruby@gmail.com	Traders and services	KPK
Nashat Group of Industry	Muhammad Riaz	Owner	0333-3838850/ 0343-2644181	muhammadfayaz2116@gmail.com	private	KPK
Dawn Global Services Pvt Limited	Javed Iqbal	Director			Public Sector	KPK

PEDO

Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa

No. **491** /PEDO/RE/O&M/JAB
Dated Jabori the 08/04/2026

TO WHOM IT MAY CONCERN

It is hereby certified that the Pakhtunkhwa Energy Development Organization (PEDO) has not, at any time prior hereto, submitted any application to the National Electric Power Regulatory Authority (NEPRA) for the grant of a Supplier License in respect of the 10.2 MW Jabori Hydropower Project, Mansehra.

Engr.Saqib Mushtaq
Resident Engineer
O&M Jabori HPS

Resident Engineer
O&M Jabori. HPC

POWER OF ATTORNEY

I, ANWAR UL HAQUE,Chief Executive Officer Pakhtubkhwa Energy Development Organization do hereby appoint ,authorize and constitute M/s Lincoln Law Chamber through Barrister Asghar Khan ,to file, sign, appear ,represent ,plead and act on Behalf of PaKhtunkhwa Energy Development Organization as advocate(s) in connection with the Application before National Electric Power regulatory Authority in the matter of "Application for Grant of Electric Supply License to Pakhtunkhwa Energy Development Organization for 10.2 MW Jabori Hydel Power Plant"(the "Application")

PEDO has specifically authorized the said " Barrister Asghar Khan/Advocate or any member of M/s Lincolns Law Chamber to do all acts and things necessary for the processing,completion and finalization of the Application with NEPRA.

For and on Behalf of

Chief Executive Officer
Pakhtunkhwa Energy Development Organization
03/01/2026

Scanned with

PEDO
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATI
Government of Khyber Pakhtunkhwa
Plot # 38 Sector B/2, Phase-V Hayatabad PEDO House Ph 091-9217329

No. 411/PEDO/RE/O&M/Jabori/NEPRA
Dated: 13.01.2026.

To

The Registrar,
Head of Consumers Affairs Department,
National Electric Power Regulatory Authority (NEPRA),
NEPRA Tower, Ataturk Avenue (East),
G-5/1, Islamabad.

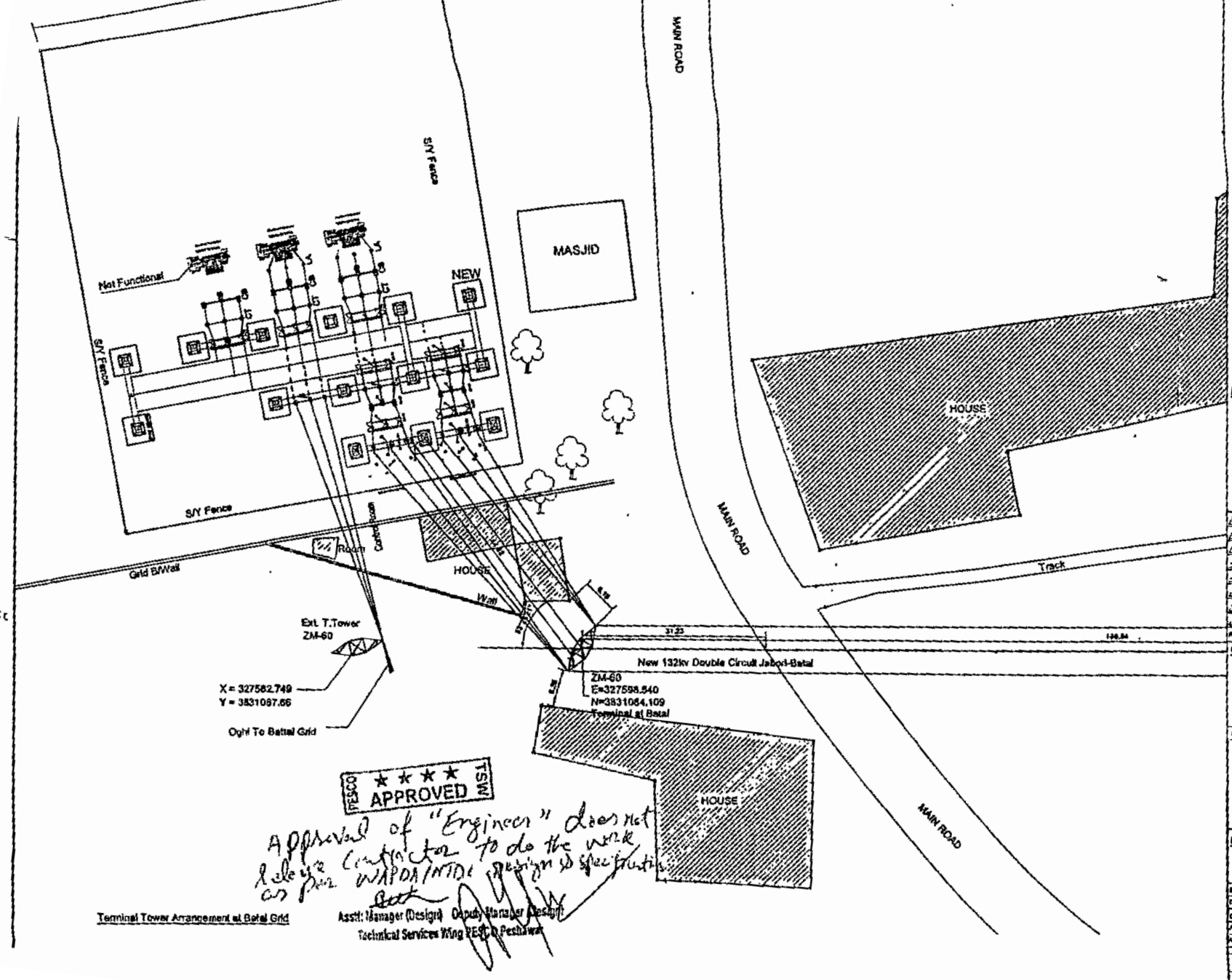
Subject: **AUTHORITY LETTER FOR ELECTRIC POWER SUPPLY LICENSE TO PEDO FOR 10.2MW JABORI HYDROPOWER COMPLEX.**

Mr. Saqib Mushtaq S/O Mushtaq Ahmed, Resident Engineer, 10.2 MW Jabori Hydropower Complex, PEDO, bearing CNIC No. 13101-0916883-7 is hereby appointed as Authorized Representative of the Pakhtunkhwa Energy Development Organization (PEDO), for the purpose of filing an application for determination of Electric Power Supply License for 10.2MW Jabori Hydropower Complex.

For and on behalf of
Pakhtunkhwa Energy Development Organization

Chief Executive Officer
PEDO Peshawar
13/01/2026

Scanned with CamScanner



Terminal Tower Arrangement at Batal Grid

Note:

1. All dimensions are in m except elevation in m.
2. This figure only consider the arrangement position of equipment

REV.	DATE	DESCRIPTION
7	[illegible]	132kV BATTAL GRID LAYOUT PLAN REVISED
6	[illegible]	Add the new battery room for the [illegible] battery
5	[illegible]	
4	[illegible]	
3	[illegible]	
2	[illegible]	
1	[illegible]	
0	[illegible]	

CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHWA
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO).

CONTRACTOR:

GRC JOINT VENTURE
[illegible]
MULTAN, PAKISTAN
[illegible]

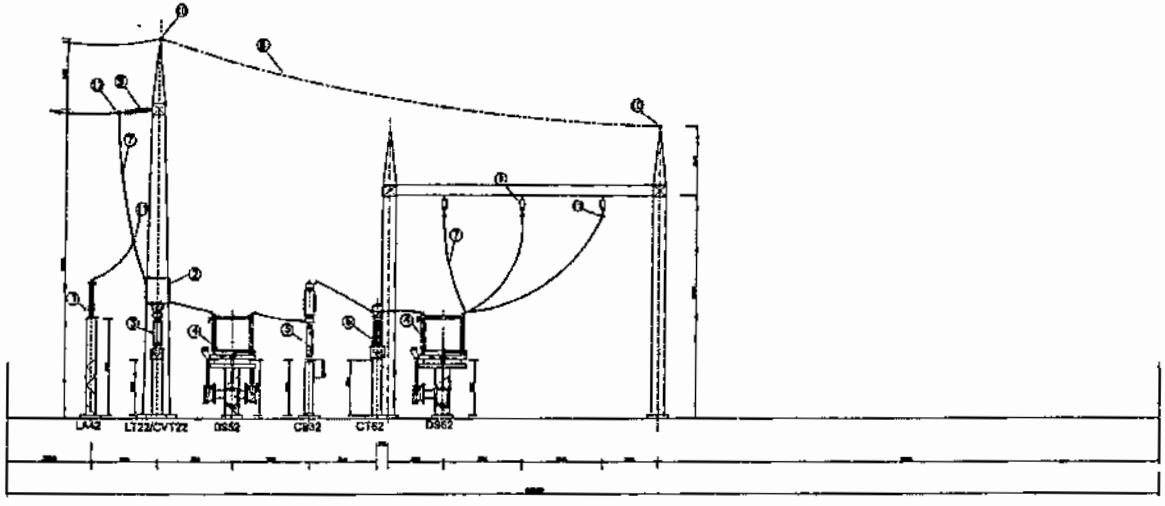
TRIED

PROJECT:

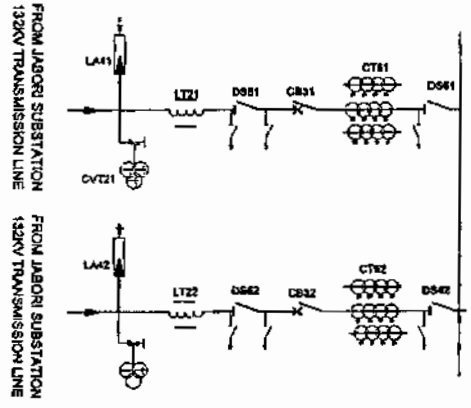
DESIGN, PROCUREMENT AND CONSTRUCTION OF 10.2MW JABORI HYDROPOWER PROJECT (DISTRICT MANSEHRA).

DRAWN	[illegible]	TITLE:
DESIGNED		132kV BATTAL GRID LAYOUT PLAN
CHECKED	[illegible]	
APPROVED(PCTN)	[illegible]	
APPROVED(TMED)	[illegible]	
DATE	SCALE	DRAWING NUMBER: LINE IN JHP-E-08-[illegible]
[illegible]	1:1	SHEET NO. 2 OF 5

SECTION VIEW



SINGLE LINE DIAGRAM



PESCO ★★★★ APPROVED TSW

Approval of "Engineers" does not relieve the contractor to do the work as per NTDC/WAPDC Designed drawings.

Asstt. Manager (Design) Deputy Manager (Design)
Technical Services Wing PESCO Peshawar

Legend:

LA: LIGHTNING ARRESTER
PT: POTENTIAL TRANSFORMER
CT: CURRENT TRANSFORMER
CVT: CAPACITOR VOLTAGE TRANSFORMER
CB: CIRCUIT BREAKER
DS: DISCONNECTOR
E: EXISTING
N: NEW

Note:

1. All dimensions are in mm except elevation in m.
2. This figure only consider the arrangement position of equipment

DRAFT FOR COMMENTS

REV.	DATE	DESCRIPTION
3	2018.04.30	
2	2018.04.13	
1	2017.02.11	
0	2017.01.25	

CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHWA
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO).

CONTRACTOR:

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66-HUSRAT ROAD HABAN ARCADE, MULTAN CANTT, MULTAN, PAKISTAN
Ph: 91 41 4512243 Fax: 91 41 4546100
EMAIL: [illegible]

TRIED

PROJECT:

DESIGN, PROCUREMENT AND CONSTRUCTION OF 10.2MW JABORI HYDROPOWER PROJECT (DISTRICT MANSEHRA).

DRAWN		TITLE:
DESIGNED		132kV BATTAL GRID SECTION PLAN - AFTER JABORI HPP LINE IN
CHECKED		
APPROVED(PCN)		
APPROVED(TRIED)		
DATE	SCALE	DRAWING NUMBER / SHEET NO. / REV.
Apr. 24, 2018	1:2	JHP-E-08-1016-3 / 3 OF 5 / 3

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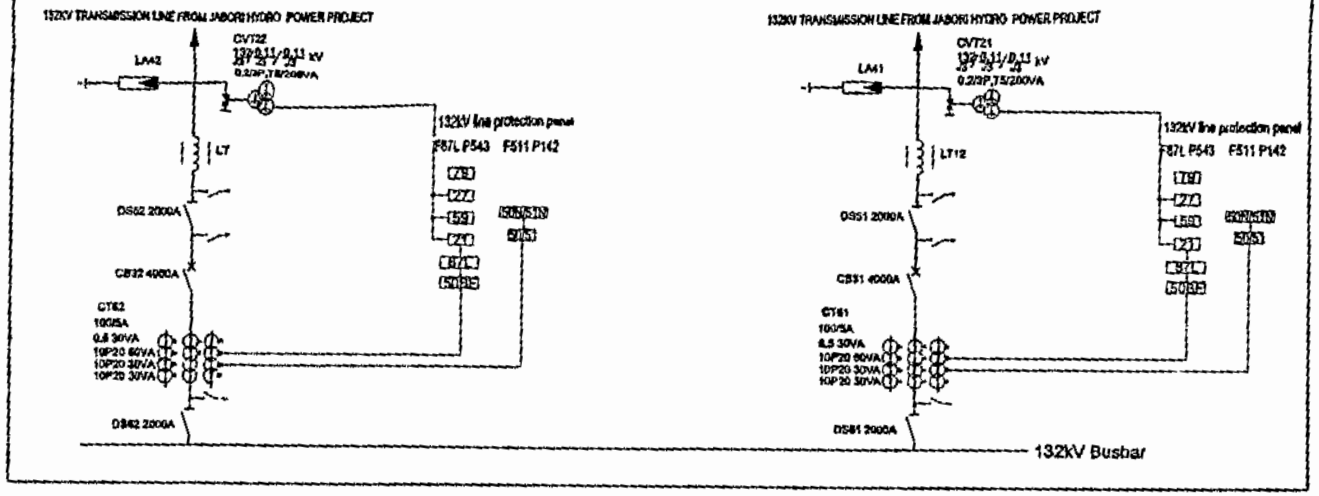
BATTAL GRID STATION



87L LINE DIFFERENTIAL

ISSUED FOR CONSTRUCTION

REV.	DATE	DESCRIPTION
3	2018.12.26	ADD THE 87L RELAY
2	2018.04.26	
1	2018.04.09	

CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHWA
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO)

CONTRACTOR:

GRC JOINT VENTURE
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TRIED

PROJECT:

DESIGN, PROCUREMENT AND CONSTRUCTION OF 10.2MW JABORI HYDROPOWER PROJECT (DISTRICT MANSEHRA)

PESCO APPROVED TSW

Approval of "Engineer" does not relieve the Contractor to do the work as per WAPDA/NTDC Approved Drawings & Specification.

Asstt. Manager (Design) Deputy Manager (Design)
Technical Services Wing PESCO Peshawar

DRAWN		TITLE: PRINCIPLE DIAGRAM OF RELAY PROTECTION AND ELECTRICAL MEASUREMENT FOR BATTAL GRID STATION
DESIGNED		
CHECKED		
APPROVED(CDA)		
APPROVED(PMO)		
DATE	SCALE	DRAWING NUMBER: JHP-E-11-1001-2 SHEET NO: 3 OF 3 REV: 3

Dec 05, 2018

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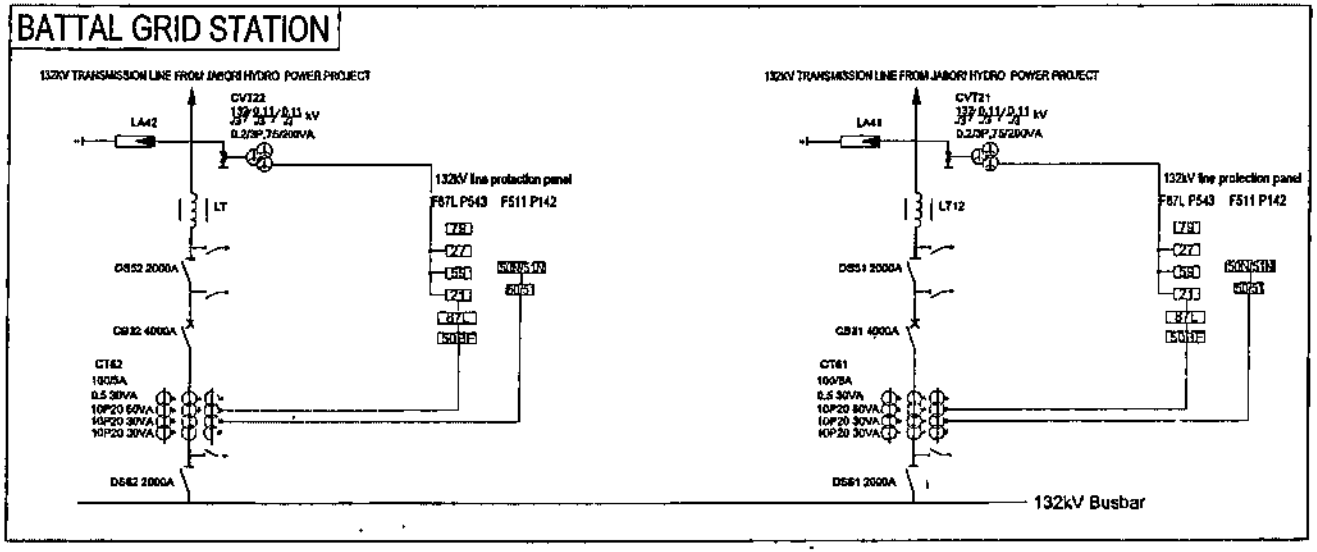
BATTAL GRID STATION



LEGEND:

LA: LIGHTNING ARRESTER
PT: POTENTIAL TRANSFORMER
CT: CURRENT TRANSFORMER
CVT: CAPACITOR VOLTAGE TRANSFORMER
CB: CIRCUIT BREAKER
DS: DISCONNECTOR

CODE TABLE:

21 DISTANCE PROTECTION RELAY
79 RECLOSING
50 INSTANTANEOUS OVER CURRENT RELAY
51 TIME OVER-CURRENT RELAY
50N/51N NEUTRAL INSTANTANEOUS /TIME OVER CURRENT RELAY
50BF CIRCUIT BREAKER FAILURE PROTECTION RELAY
27/59 UNDER/OVER VOLTAGE RELAY
87L LINE DIFFERENTIAL PROTECTION RELAY

ISSUED FOR CONSTRUCTION

REV.	DATE	DESCRIPTION
2	2018.12.05	ADD THE 87L RELAY
1	2018.04.30	
0	2018.04.05	

CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHWA
PAKHTUNKHWA ENERGY DEVELOPMENT
ORGANIZATION (PEDO).

CONTRACTOR:

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MULTAN, PAKISTAN
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Email: info@grcmultan.com, grcmultan@gmail.com

TRIED

PROJECT:

DESIGN, PROCUREMENT AND CONSTRUCTION OF 16.2MW
JABORI HYDROPOWER PROJECT (DISTRICT MANSEHRA).

DRAWN		TITLE: PRINCIPLE DIAGRAM OF RELAY PROTECTION AND ELECTRICAL MEASUREMENT FOR BATTAL GRID STATION
DESIGNED		
CHECKED		
APPROVED(DESIGN)		
APPROVED(TRIED)		
DATE	SCALE	DRAWING NUMBER: SHP-E-11-1001-2
Dec. 05, 2018		SHEET NO. 3 OF 5

REV. 2

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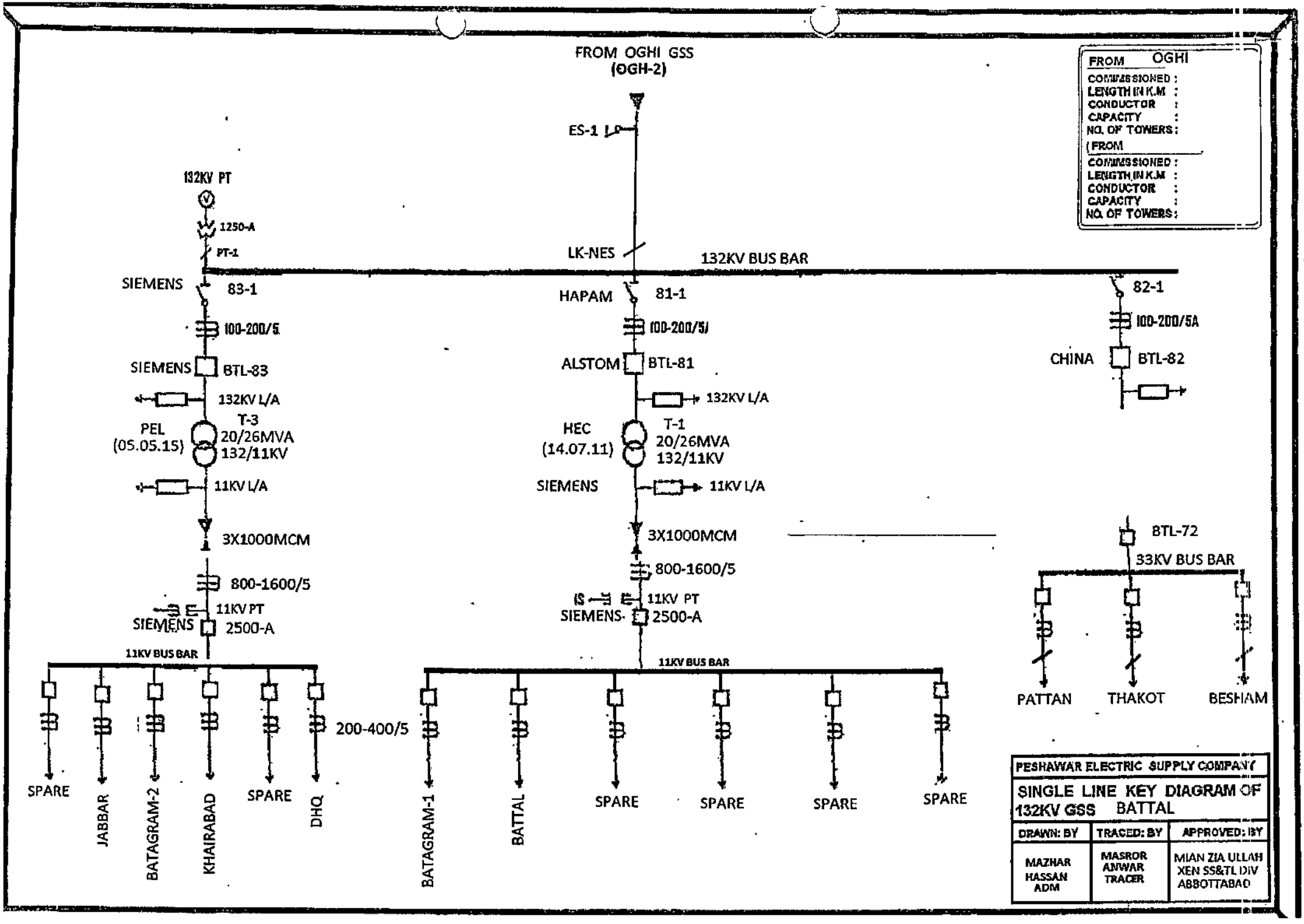
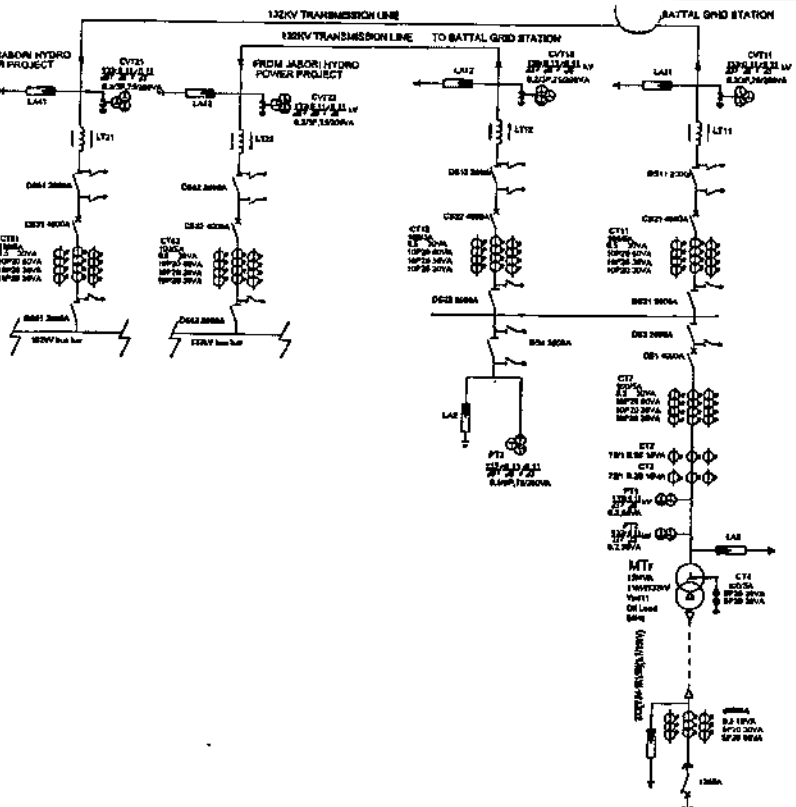
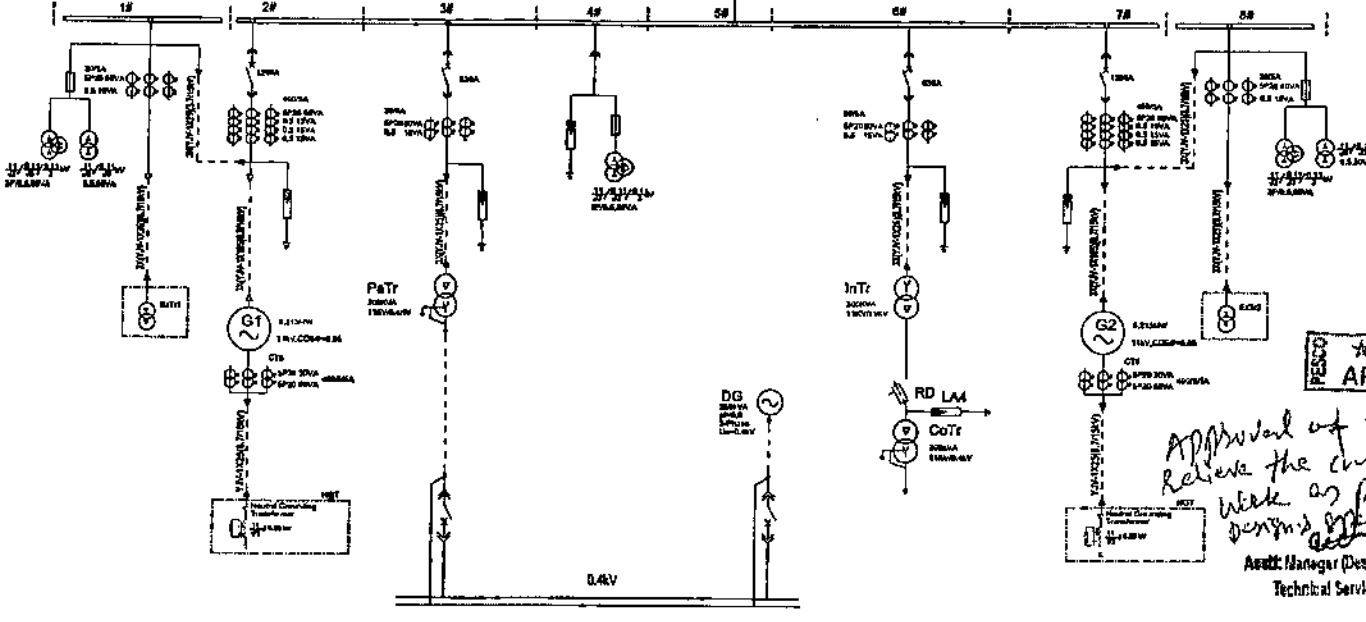
PESCO ★★★★ TSRI
APPROVED

Approval of "Engineer" doesn't relieve the Contractor to do the Work as per WAPDA/NTDC Design Drawings & Specification.

Asstt. Manager (Design) Deputy Manager (Design)
Technical Services Wing PESCO Peshawar


FROM OGHI GSS
(OGH-2)
ES-1
LK-NES
132KV BUS BAR
FROM OGHI
COMMISSIONED :
LENGTH IN K.M :
CONDUCTOR :
CAPACITY :
NO. OF TOWERS :
(FROM
COMMISSIONED :
LENGTH IN K.M :
CONDUCTOR :
CAPACITY :
NO. OF TOWERS :
132KV PT
1250-A
PT-1
SIEMENS
83-1
100-200/5
SIEMENS
BTL-83
132KV L/A
PEL
(05.05.15)
T-3
20/26MVA
132/11KV
11KV L/A
3X1000MCM
800-1600/5
11KV PT
SIEMENS
2500-A
11KV BUS BAR
HAPAM
81-1
100-200/5
ALSTOM
BTL-81
132KV L/A
HEC
(14.07.11)
T-1
20/26MVA
132/11KV
SIEMENS
11KV L/A
3X1000MCM
800-1600/5
11KV PT
SIEMENS
2500-A
11KV BUS BAR
82-1
100-200/5A
CHINA
BTL-82
BTL-72
33KV BUS BAR
PATTAN
THAKOT
BESHAM
200-400/5
SPARE
JABBAR
BATAGRAM-2
KHAIRABAD
SPARE
DHQ
BATAGRAM-1
BATTAL
SPARE
SPARE
SPARE
SPARE
PESHAWAR ELECTRIC SUPPLY COMPANY
SINGLE LINE KEY DIAGRAM OF
132KV GSS BATTAL
DRAWN: BY
MAZHAR HASSAN ADM
TRACED: BY
MASROR ANWAR TRACER
APPROVED: BY
MIAN ZIA ULLAH XEN SS&TL DIV ABBOTTABAD





MAIN EQUIPMENT

NO.	NAME	LABEL	TYPE & SPECIFICATION	UNIT	QUANTITY	REMARK
1	Generator	G1、G2	5.215MW,11kV,COSΦ=0.85	set	2	
2	Excitation transformer	ExTr1、ExTr2	130kVA,11/0.16kV	set	2	
3	Plant Auxiliary Transformer	PsTr	200kVA,132±2.5%/0.4kV Dyn11, Uk=4%	set	1	
4	Colony Transformer	CoTr	200kVA,11/0.4kV Dyn11, Uk=4%	set	1	
5	Intermittent Transformer	InTr	200kVA,11/11kV Yd11, Uk=6%	set	1	
6	Neutral grounding resistor	NGT	11/√3 / 0.23 kV	set	2	
7	11kV Metal Enclosed Switchgear	5#	1250A 630/5A,5P20/5P20/0.5 ,60/30/15VA	set	1	
8	11kV Metal Enclosed Switchgear	2#、7#	1250A 400/5A,5P20/0.5/0.5/0.5/0.5P/15/15/15VA	set	2	
9	11kV Metal Enclosed Switchgear	4#	3P/0.5,50VA 11/√3/0.11kV	set	1	
10	11kV Metal Enclosed Switchgear	3#、6#	630A 300/5A,5P20/0.5 ,60/15VA	set	2	
11	11kV Metal Enclosed Switchgear	1#、8#	200A,3P/0.5/0.5/11kV 11/√3/0.11kV 0.5/0.5/11kV 11/√3/0.11kV	set	2	
12	Diesel Generator	DG	250kVA,50Hz,0.4kV,COSΦ=0.8	set	1	
13	Main Transformer	MTr	31.5MVA,132±2*2.5%/11kV,YNd11,Uk=8%	set	1	
14	Current Transformer	CT4	100/5/5A, 5P20/ 5P20,30/30VA	set	1	install in main transformer bushing
15	Lightning Arrester	LA1, LA2, LA3, LA4, LA5, LA6	120/295kV, 10kA	set	18	
16	Potential Transformer	PT1、PT2	132/0.11 kV,0.2,50VA	set	6	
17	Current Transformer	CT2、CT3	75/1A, 0.2S,15VA	set	6	
18	Disconnecting Switch	QS1, QS2, QS4, QS5, QS6	132kV, 2000A, 40kA	set	5	with double earthing switches
19	Disconnecting Switch	QS3, QS7, QS8, QS9, QS10	132kV, 2000A, 40kA	set	5	with single earthing switch
20	Current Transformer	CT1, CT3, CT7	100/5A,0.5/10P20/10P10/10P20,30/60/30/30VA	set	9	
21	Circuit Breaker	QF1, QF2, QF3, QF4, QF5	132kV, 4000A, 40kA	set	5	
22	Wave Trap	LT1, LT2, LT21, LT22	0.2mH,1250A,40kA	set	4	
23	Capacitive Voltage Transformer	CVT1, CVT2, CVT3, CVT4	132/0.11/0.11 kV,0.2/3P,75/200VA	set	12	
24	Potential Transformer	PT3	132/0.11/0.11 kV,0.5/6P,75/200VA	set	3	
25	Current Transformer	CT61、CT62	100/5A,0.5/10P20/10P20/10P20,30/60/30/30VA	set	6	
26	Drop type fuse	RD	11kV,30A	set	3	
27	Lightning Arrester	LA4	10kV 5kA	set	3	
28	Current Transformer	CT5	400/5A, 5P20/5P20,30/60VA	set	6	

Legend:

SYMBOL	DESCRIPTION
	11KV BUS BAR
	GENERATOR
	TRANSFORMER
	FUSE
	CABLE
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	LIGHTING ARRESTER
	EARTHING SWITCH
	CIRCUIT BREAKER
	WITHDRAWABLE CIRCUIT BREAKER
	NEUTRAL GROUNDING TRANSFORMER
	WAVE TRAP
	CAPACITIVE VOLTAGE TRANSFOMER

Note:

ISSUED FOR CONSTRUCTION

REV.	DATE	DESCRIPTION
5	2018.11.30	Revise the name in main transformer from 31.5MVA-132/11kV to 30MVA-132/11kV
4	2018.04.30	
3	2018.02.28	
2	2018.01.30	
1	2016.12.05	
0	2016.06.14	

CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHWA PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO).

CONTRACTOR:

GRC JOINT VENTURE
84-NUSRAT ROAD HASAN ARCADE MULTAN CANT., MULTAN, PAKISTAN
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EMAIL: info@grc.com.pk, grc@dialogsl.net

TRIED

PROJECT:

DESIGN, PROCUREMENT AND CONSTRUCTION OF 10.2MW JABORI HYDROPOWER PROJECT (DISTRICT MANSEHRA).

PESCO ★★★★ APPROVED TSW

Approval of "Engineer" does not relieve the contractor to do the work as per WAPDA/NTDC design specifications

Asstt. Manager (Design) Deputy Manager (Design)
Technical Services Wing PESCO, Peshawar

DRAWN		TITLE:
DESIGNED		MAIN SINGLE LINE DIAGRAM
CHECKED		
APPROVED(CHI)		
APPROVED(TRIED)		
DATE	SCALE	DRAWING NUMBER / REV.
Nov.30, 2016		JHP-E-00-1001-S 1 OF 1 5

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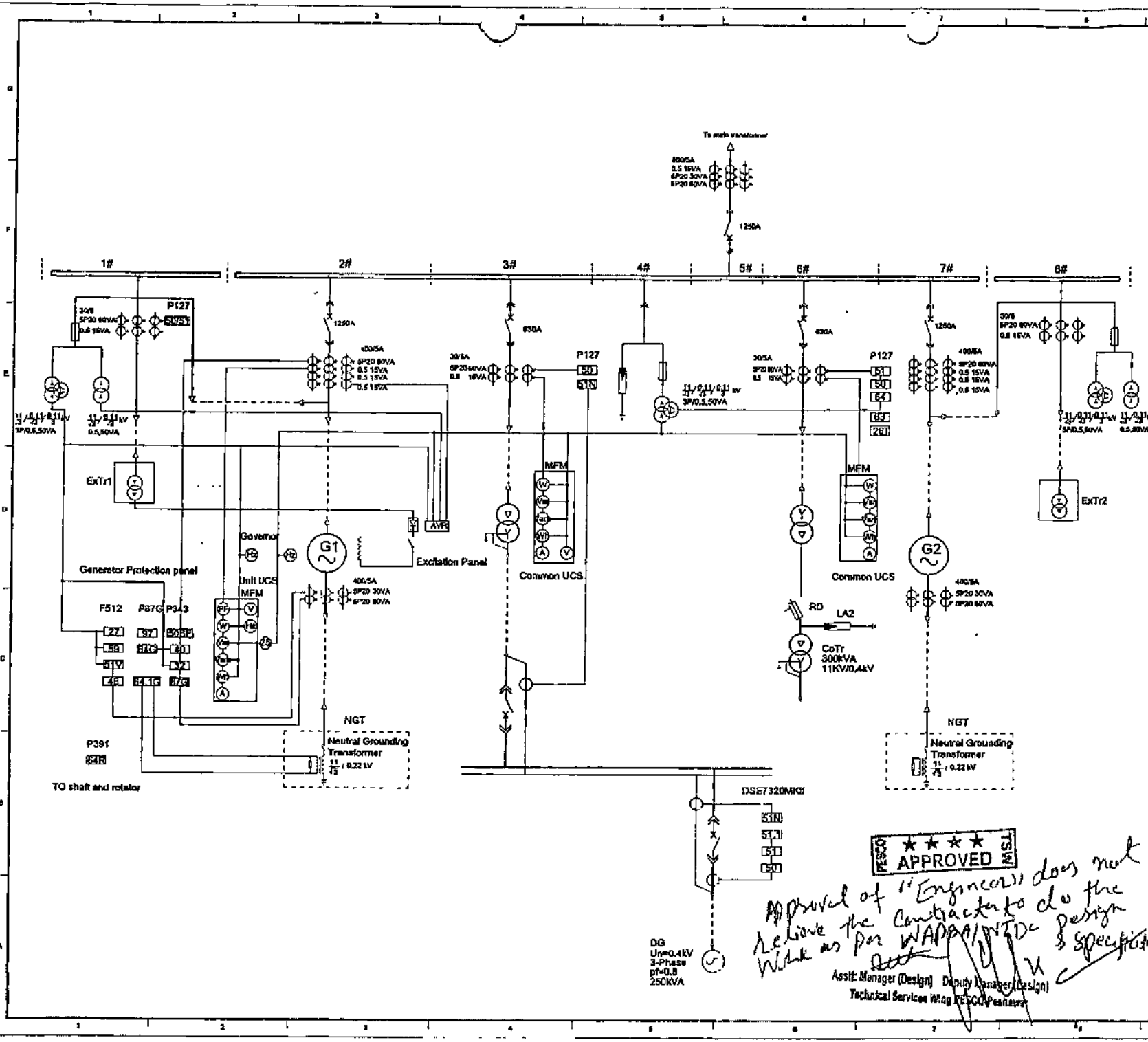

LEGEND:

- EM 0.2 CLASS ENERGY METER
- MFM MULTIFUNCTION METER
- VOLTAGE TRANSDUCER
- CURRENT TRANSDUCER
- Mvar TRANSDUCER
- MW TRANSDUCER
- VOLTAGE ANALOG METER
- CURRENT DIGITAL METER
- CURRENT ANALOG METER
- MW ANALOG METER
- MW ANALOG METER

CODE TABLE:

21	DISTANCE PROTECTION RELAY
25	SYNCHRONISM—CHECK RELAY
79	RECLOSING
50	INSTANTANEOUS OVER CURRENT RELAY
51	TIME OVER CURRENT RELAY
50N/51N	NEUTRAL INSTANTANEOUS /TIME OVER CURRENT RELAY
50BF	CIRCUIT BREAKER FAILURE PROTECTION RELAY
27/59	UNDER/OVER VOLTAGE RELAY
87T	TRANSFORMER DIFFERENTIAL RELAY
64	EARTH FAULT RELAY
38	OIL TEMPERATURE PROTECTION
49	WINDING TEMPERATURE PROTECTION
63	BUCHHOLZ RELAY
63.1	PRESSURE RELEASE
54	COOLING FAN FAULT
32	REVERSE POWER RELAY
40	GENERATOR LOSS OF FIELD EXCITATION
46	NEGATIVE SEQUENCE CURRENT RELAY
51V	VOLTAGE RESTRAINED OVER CURRENT PROTECTION
64G	95% STATOR EARTH FAULT RELAY
64.1G	100% STATOR EARTH FAULT RELAY
64R	ROTOR EARTH FAULT RELAY
87G	GENERATOR DIFFERENTIAL RELAY
67	FUSE FAILURE PROTECTION ON PTS
61.1	OVERLOAD PROTECTION RELAY
26T	TEMPERATURE PROTECTION RELAY
87B	BUS DIFFERENTIAL PROTECTION RELAY

NOTE:
GENERATOR #2 AND GENERATOR #1 HAVE THE SAME RELAY PROTECTION AND ELECTRICAL MEASUREMENT CONFIGURATION.

ISSUED FOR CONSTRUCTION

REV.	DATE	DESCRIPTION
6	2018.12.20	ADD RELAY CODE
5	2018.04.20	
4	2018.01.25	
3	2018.04.12	
2	2018.11.26	
1	2018.06.10	
0	2018.04.14	

CLIENT:
GOVERNMENT OF KHYBER PAKHTUNKHWA
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO).

CONTRACTOR:
GRC JOINT VENTURE
MUNIRAT ROAD HASAN ARCADE, MULTAN CANTT
MULTAN, PAKISTAN
PH: 92 61431[illegible] Fax: 92 61 4[illegible]
EMAIL: [illegible]

TRIED

PROJECT:
DESIGN, PROCUREMENT AND CONSTRUCTION OF 10.2MW JABORI HYDROPOWER PROJECT (DISTRICT MANSEHRA).

DRAWN	[illegible]	TITLE: PRINCIPLE DIAGRAM OF RELAY PROTECTION AND ELECTRICAL MEASUREMENT
DESIGNED	[illegible]	
CHECKED	[illegible]	
APPROVED(PCDS)	[illegible]	
APPROVED(TRIED)	[illegible]	
DATE	SCALE	DRAWING NUMBER: JHP-E-11-1001-6 — SHEET NO.: 1 OF 5 — REV.: 6
Dec. 06, 2018		

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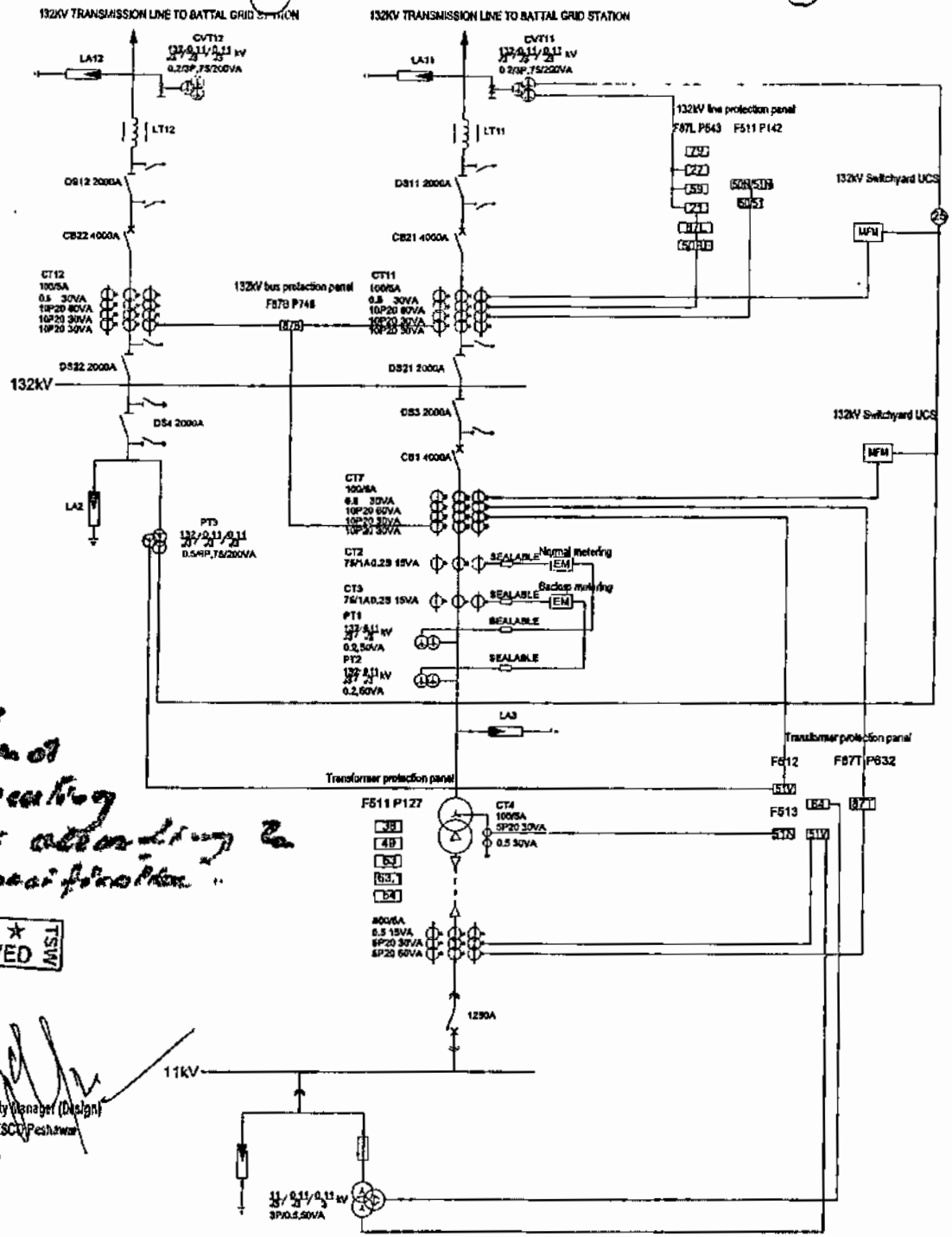
PESCO ★★★★ APPROVED MSJ

Approval of "Engineer" does not relieve the contractor to do the work as per WAPDA/WTDC design & specification

Asstt: Manager (Design) Deputy Manager (Design)
Technical Services Wing PESCO Peshawar



LEGEND:

- 0.2 CLASS ENERGY METER
- MULTIFUNCTION METER

CODE TABLE:

21	DISTANCE PROTECTION RELAY
25	SYNCHRONISM – CHECK RELAY
79	RECLOSING
50	INSTANTANEOUS OVER CURRENT RELAY
51	TIME OVER-CURRENT RELAY
50N/51N	NEUTRAL INSTANTANEOUS /TIME OVER CURRENT RELAY
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87T	TRANSFORMER DIFFERENTIAL RELAY
64	EARTH FAULT RELAY
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64	COOLING FAN FAULT
32	REVERSE POWER RELAY
40	GENERATOR LOSS OF FIELD EXCITATION
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51V	VOLTAGE RESTRAINED OVER CURRENT PROTECTION
64G	95% STATOR EARTH FAULT RELAY
64.1G	100% STATOR EARTH FAULT RELAY
64R	ROTOR EARTH FAULT RELAY
87G	GENERATOR DIFFERENTIAL RELAY
87	FUSE FAILURE PROTECTION ON PTS
51.1	OVERLOAD PROTECTION RELAY
26T	TEMPERATURE PROTECTION RELAY
87B	BUS DIFFERENTIAL PROTECTION RELAY
87L	LINE DIFFERENTIAL PROTECTION RELAY

NOTE:

132KV LINE #2 AND 132KV LINE #1 HAVE THE SAME RELAY PROTECTION AND ELECTRICAL MEASUREMENT CONFIGURATION.

Note
Approval of the Engineer does not relieve the Contractor responsibility to work according to Drawings & Specifications.

PESCO ★★★★ APPROVED TSW

Asstt: Manager (Design) Deputy Manager (Design)
Technical Services Wing PESCO Peshawar

ISSUED FOR CONSTRUCTION

Rev.	DATE	DESCRIPTION
6	2018.12.06	ADD THE 87L RELAY
5	2018.04.26	
4	2018.01.23	
3	2015.06.12	
2	2014.11.20	
1	2013.06.10	
0	2013.04.14	

CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHWA
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO).

CONTRACTOR:

GRC JOINT VENTURE

PROJECT:

DESIGN, PROCUREMENT AND CONSTRUCTION OF 13.2MW JABORI HYDROPOWER PROJECT (DISTRICT MANSEHRA)

DRAWN	
DESIGNED	
CHECKED	
APPROVED(Chief)	
APPROVED(Client)	
DATE	
SCALE	

TITLE:

PRINCIPLE DIAGRAM OF RELAY PROTECTION AND ELECTRICAL MEASUREMENT

DRAWING NUMBER: JHP-E-11-1001-6 | SHEET: 2 OF 11 | REV: 6

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PROCUREMENT PLAN FOR MEETING EXPECTED LOADS (INCLUDING OWN GENERATION AND/OR LONG TERM AND SHORT-TERM EPA/PPA)

Procurement of power from IPPs is being considered as second/cheapest source electricity for the Industrialist Estate through direct connection/wheeling as a long term and short-term solution of energy shortfall as well.

Pakistan is currently passing from one of its worst energy crises. It is very difficult to supply continuous electricity to Industrial Estates, to increase industrialization and make the availability of 24hrs electricity.

Industries are aggressively pursuing alternative source of electricity from projects throughout KP province in the affordable cost through wheeling or direct supply arrangement. The contract of Power Purchase will be regulated as per NEPRA rules and regulations.

FIVE-YEARS INVESTMENT PLAN INDICATING SCHEMES/ MODELS/ FRAMEWORK FOR UNDERTAKING SUPPLY OF ELECTRIC POWER (INCLUDING FRAMEWORKS FOR PROVIDING NON-DISCRIMINATORY SERVICES AND ACQUISITION/SALE OF ASSETS IN RELEVANT SERVICE TERRITORIES):

PEDO has been mandated not only to harness the available hydropower potential but also to develop other renewable energy sources in the province. It is very encouraging to note that PEDO has so far completed several hydropower projects with a total capacity of 162 MW. Another five hydro power projects with cumulative capacity of 226 MW are under completion. Moreover, contract for the 300MW Balakot HPP has been successfully awarded and physical work started at site. The project is being funded by the Asian Development Bank (ADB). Two other large-scale projects including 88MW Gabral Kalam and 157MW Madyan HPPs, funded by the World Bank, are also being awarded shortly.

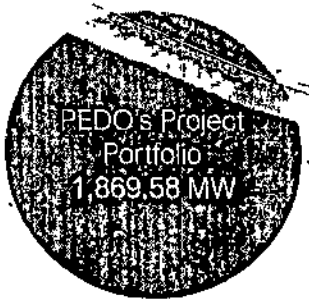
KP Government has endeavored to develop cheap hydropower potential which is available in abundance in the province; which would prove to be a catalyst in boosting industrialization in the province.Owing to overwhelming response from various local and national industries on wheeling of power, Government of Khyber Pakhtunkhwa (GoKP) decided to replicate the same by selling the electricity generated from its other power projects. It is pertinent to mention that GoKP through PEDO has embarked on ambitious plan for providing sustainable and reliable

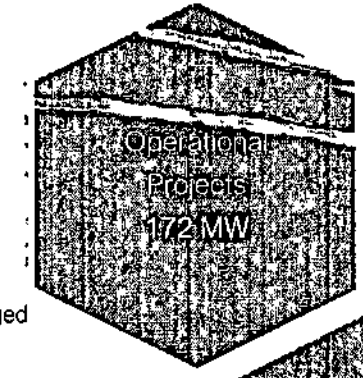
supply of electricity for its consumers and industry to promote growth and job creation. Accordingly, wheeling of electricity is the cornerstone of strategy and plan to ensure connectivity of GoKP Hydropower Projects to the Bulk Consumers through wheeling arrangement. This shall also enable transition to competitive electricity markets.

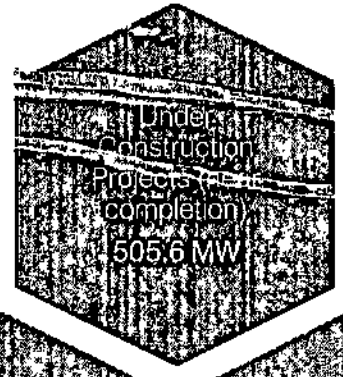
KPK Generation Pipeline
PEDO's investment portfolio

- Malakand III – 81 MW
- Pehur – 18 MW
- Machai – 2.6 MW
- Shishi – 1.8 MW
- Daral Khwar – 36.6 MW
- Reshun – 4.2 MW
- *Ranolia – 17 MW
- Jabori – 10.2 MW

*Ranolia is non-operational as was damaged by floods and is under rehabilitation.

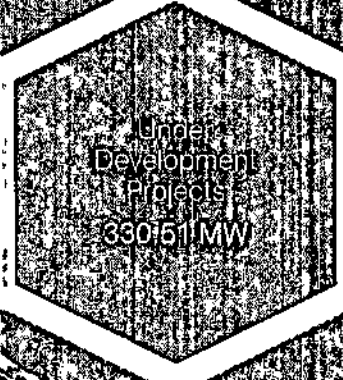


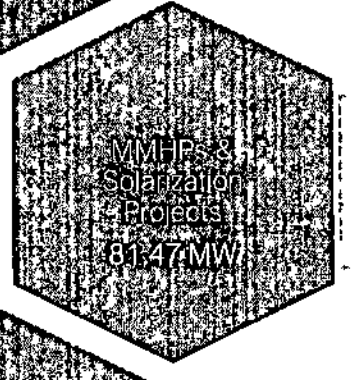




- Koto - 40.8 MW
- Balakot – 300 MW
- Gorkin Matiltan – 84 MW
- Lawi – 69 MW
- Karora – 11.8 MW

- Gabral Kalam – 95 MW
- Madyan- 215 MW
- Mujahidin – 6.95 MW
- Chapari Charkhel–13.56 MW



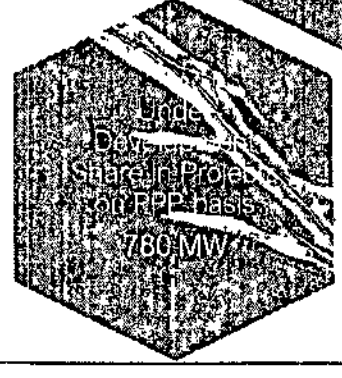


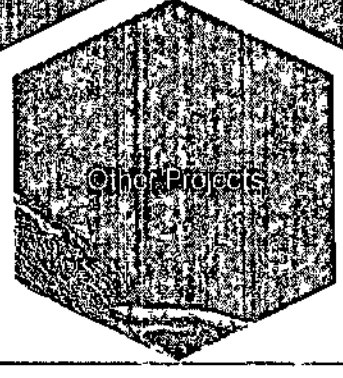
- MMHP's- 34.7MW
- Solar- 46.77 MW

- Lower Spat Gah* – 496 MW
- Naran Batakundi – 235 MW

(Naran -Batakundi is under consideration for PPP arrangements)

*The scope of this segment is limited to the Lower Spat Gah project, because of its current advanced status.





- Chitral Corridor Projects

(The Chitral Portfolio is briefly discussed, however due to lack of visibility, same have not been assumed in this business plan)

KPK Generation Pipeline

Private sector HPPs at relatively advanced stage

After the successful evacuation of the Swat and Chitral corridors, private sector potential hydropower projects under IPP mode will be developed.

S No	Project	Capacity (MW)	Sponsor Name	District	GWh	Estimated Cost (MUSD)	Targeted COD
1	Kalam Asrit HPP	238	KOEN (Korea)	Swat	945.8	399.73	2034
2	Asrit Kedam HPP	229	KOEN (Korea)	Swat	944.7	371.57	2034
3	Shigo Kas HPP	102	Saifco Energy	Lower Dir	512	306.77	2032
4	Sharmai HPP	150	Sapphire Electric	Upper Dir	689	369.57	2032
5	Arkari Gol HPP	99	Master Hydro	Chitral	372	214.55	2032
6	Gabral Utror	79	Markhor Energy	Swat	310.88	199.65	2032
7	Bankhwar HPP	35	Markhor Energy	Swat	123.68	93.08	2031
8	Artistic-2 HPP	55	Artistic Milliners	Swat	211.745	113.5	2032
9	Daral Khwar-II HPP	9.5	Siddiqsons	Swat	43.82	23.66	2031
10	Balkani HPP	7.75	Shangla Power	Shangla	33.95	15	2031
11	Shalfalam HPP	60	Siddiqsons	Upper Dir	270.45	170.17	2033
12	Artistic-1 HPP	63	Artistic Milliners	Upper Dir	306.57	236.8	2032
13	Nila Da Katha HPP	31.24	Sino Pak Power	Manshera	136.8	58.4	2032
14	Chowkel Khwar HPP	60	MMP	Swat	241.78	120	2033
15	Bhimbal Katha HPP	26	Multiline Enterprises	Manshera	117.5	72.9	2032
Total		1,244.49			5,260.68	2,765.35	

KPK Generation Pipeline

Chitral corridor – evacuation restrained by transmission capacity

Potential projects listed hereunder were assessed by PEDO and were finalised for taking forward based on feasibility studies conducted by renowned consultants. Private sector can undertake below HPPs within IPP regime, supply to grid/BPCs under CTBCM, or to meet power requirements of public/private distribution companies (existing or upcoming).

#	HPP in Chitral Corridor with Feasibility Studies Completed	Capacity (MW)	Energy (GWh/Annum)	Estimated Cost of the Hydropower Project USD Million	Estimated Per MegaWatt Cost of the HPPs (USD Million/MW)
1	Kari- Mushkur HPP	495	2,165	1228	2.48
2	Turen Mori Kari HPP	350	1,450	753	2.15
3	Jameshill more Lasht HPP	260	1,062	616	2.37
4	Laspur Miragram HPP	230	874	448	1.95
5	Shushgai Zindoli HPP	144	613	225	1.56
6	Shogo Sin HPP	132	583	269	2.04
7	Mujigram Shaghore HPP	64	278	182	2.84
	Total for HPP	1,675	7,025	3,721	

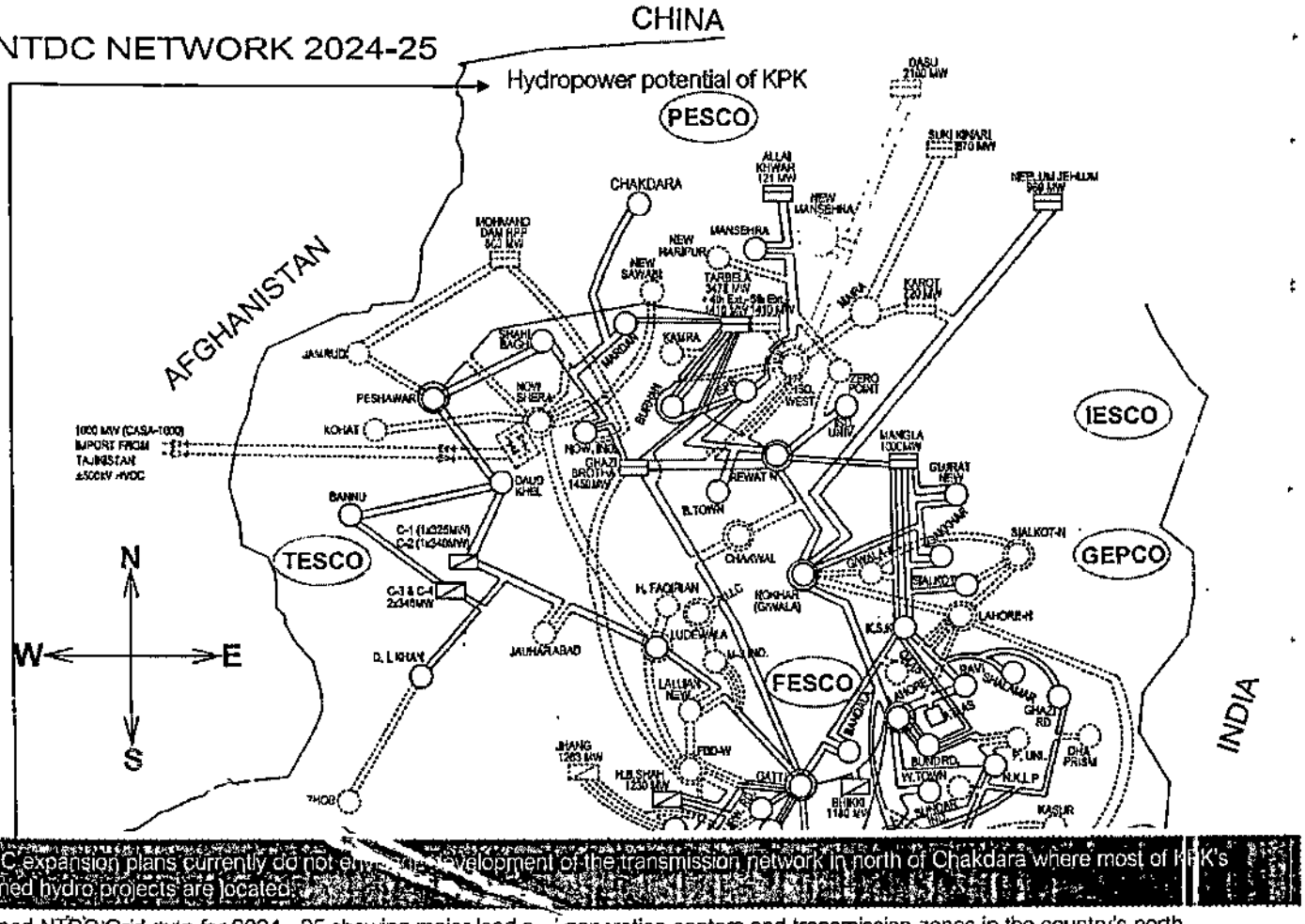
Risks Associated with PEDO Supply Potential as of June 2025

Sparse Transmission Network

he utilization of KPK's hydro potential is significantly onstrained due to insufficient capacity in the transmission nd distribution network to evacuate power from the nvisaged hydro power projects.

National Transmission & Dispatch Company Limited NTDC)'s network expansion plans till 2025 do not seem to account for a significant number of hydro projects being considered for development in KPK under the provincial regime.

Accordingly, it provides an opportunity for the province to invest in the transmission lines in view of the upcoming hydro projects in the area.



NTDC expansion plans currently do not envisage development of the transmission network in north of Chakdara where most of PEDO's planned hydro projects are located.

Planned NTDC Grid map for 2024 - 25 showing major load and generation centers and transmission zones in the country's north.

Risks Associated with PEDO Supply Potential as of June 2025

Planned Supply Increase from 1B units to 5B units (including under development projects and PPP project)

The projects under development face risk of non-procurement by national grid. These mainly include Balakot, Gabral Kalam, Madyan, Lower Spatgah (PPP Project), Mujaheden and Chapri Charkhel. The non-procurement risk emanate from following facts:

Supply to grid has become competitive – (a) there is no scarcity of base load at grid and (b) price of hydro power might not be able to compete with solar and wind energy.

The possibility of carving PESCO's residential customers is very low. Even with the acquisition of PESCO, the DISCO will remain tied with legacy contracts.

Limited options for increase in supply are (a) increasing KPK industrial demand and (b) finding new markets for supply. For this, PEDO might require to focus on new solutions for supply to consumers within KPK and outside the province. To reduce cost of generation PEDO might also consider focusing on hybrid generation (Hydro-Solar Hybrid generation) or types of energy sold (selling hydrogen rather than electricity).

	MW	2026	2027	2028	2029	2030	2031	203	2033
Malakand-III	81	246	246	246	246	246	246	246	246
Pehur	18	53	53	53	53	53	53	53	53
Daral Khwar	37	153	153	153	153	153	153	153	153
Ranolia	17	-	50	92	92	92	92	92	92
Reshun	4.2	15	15	15	15	15	15	15	15
Machai	2.6	7	7	7	7	7	7	7	7
Shishi	1.88	7	7	7	7	7	7	7	7
Jabori	10	57	57	57	57	57	57	57	57
Matiltan	84	48	277	277	277	277	277	277	277
Lawi	69	144	242	242	242	242	242	242	242
Koto	41	166	166	166	166	166	166	166	166
Karora	12	57	57	57	57	57	57	57	57
Balakot	300	-	-	-	617	914	914	914	914
Gabral Kalam	95	-	-			293	293	293	293
Madyan	215	-	-			671	671	671	671
Charkhel	14	-	-			65	65	65	65
Mujaheden	7	-	-			33	33	33	33
Lower Spatgah	470	-	-	-	-	-	-	-	1,925
Total		953	1,330	1,372	1,989	3,348	3,348	3,348	5,273

Note-1: In case of operational projects (in 2025), the generation estimates above have been developed based on actual average generation of last 2-3 years and in case of under construction/development projects the benchmark generation has been discounted by 20%, as per discussion with PEDO management.

Under-development projects are targeted to achieve COD in 2028, however keeping in view the level of risks associated with hydropower generation these projects are expected to complete in 2030.

JABORI HYDROPOWER PROJECT

ANNUAL ENERGY CALCULATIONS USING 10 DAILY FLOWS

Design Discharge	Q_{Design}	4	Cumecs
Minimum water level at weir	EL.	1413.75	m asl
River bed level at weir site	EL.	1410.50	m asl
Powerhouse Tail water level	EL.	1257.00	m asl
Env-ronmental Flows	$Q_{Environment}$	0.134	Cumecs
No. of Units	No.	2	FRANCIS
Design Discharge (single unit)	Q_{Design}	4	Cumecs
Gross Head	H_{Gross}	156.75	meter
Total Loss in head	H_L	8.75	meter
Net head	H_{Net}	148.00	meter
Flushing Period	$P_{Flushing}$	0	Days
Turbine Efficiency at Design Discharge	η_T	0.92	% age
Generator Efficiency	η_G	0.97	% age
Transformer Efficiency	η_{Tr}	0.99	% age

Gross Power Potential	10.20	MW
Annual Energy	73.29	Gwh
Plant Factor	79.57%	Percent

TURBINE EFFICIENCY		
%	flow	eff.
0%	0.00	0.0%
25%	1.00	59.8%
50%	2.00	84.3%
75%	3.00	92.4%
85%	3.40	93.2%
100%	4.00	92.0%
101%	4.20	91.5%
102%	4.73	91.5%

MIN. FLOW	
TURBINE	FACTOR
FRANCIS	0.50
PELTON	0.10
TURGO	0.20

Month	Days	AVERAGE INFLOW	NET HEAD	TURBINE - 1				TURBINE - 2				TURBINE - 3				POWER	ANNUAL ENERGY		
				Q_1	η_T	POWER	Energy$_1$	Q_2	η_T	POWER	Energy$_2$	Q_3	η_T	POWER	Energy$_3$				
		(m^3/s)	(m)	(m^3/s)	(%)	MW	(GWh)	(m^3/s)	(%)	MW	(GWh)	(m^3/s)	(%)	Mw	(GWh)	MW	(GWh)		
JAN	10	4.73	148.00	2.36	87%	2.88	0.69	2.36	87%	2.88	0.69	0.0	0%	0.00	0.00	5.75	1.38	4.56	0.16
	10	4.83	148.00	2.41	88%	2.95	0.71	2.41	88%	2.95	0.71	0.0	0%	0.00	0.00	5.90	1.42	4.22	0.61
	11	5.31	148.00	2.65	90%	3.31	0.87	2.65	90%	3.31	0.87	0.0	0%	0.00	0.00	6.63	1.75	4.73	1.18
FEB	10	5.81	148.00	2.90	92%	3.71	0.89	2.90	92%	3.71	0.89	0.0	0%	0.00	0.00	7.42	1.78	6.60	-0.99
	10	6.66	148.00	3.33	92%	4.27	1.02	3.33	92%	4.27	1.02	0.0	0%	0.00	0.00	8.54	2.05	5.98	-0.33
	8	6.92	148.00	3.46	92%	4.44	0.85	3.46	92%	4.44	0.85	0.0	0%	0.00	0.00	8.87	1.70	6.58	0.36
MAR	10	7.94	148.00	3.97	92%	5.09	1.22	3.97	92%	5.09	1.22	0.0	0%	0.00	0.00	10.18	2.44	8.45	-0.51
	10	9.24	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	10.90	-1.68
	11	10.72	148.00	4.00	92%	5.10	1.35	4.00	92%	5.10	1.35	0.0	0%	0.00	0.00	10.20	2.69	12.14	-1.92
APR	10	10.29	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	12.46	-2.17
	10	10.29	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	11.98	-1.71
	10	10.27	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	13.21	-2.84
MAY	10	9.65	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	12.69	-3.04
	10	8.54	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	11.02	-2.48
	11	7.72	148.00	3.86	92%	4.95	1.31	3.86	92%	4.95	1.31	0.0	0%	0.00	0.00	9.90	3.57	9.70	-1.98
JUN	10	7.10	148.00	3.55	92%	4.55	1.09	3.55	92%	4.55	1.09	0.0	0%	0.00	0.00	9.11	2.19	9.28	-2.18
	10	6.49	148.00	3.25	92%	4.16	1.00	3.25	92%	4.16	1.00	0.0	0%	0.00	0.00	8.33	2.00	8.40	-1.90
	10	6.70	148.00	3.35	92%	4.30	1.03	3.35	92%	4.30	1.03	0.0	0%	0.00	0.00	8.60	2.06	8.29	-1.59
JUL	10	7.82	148.00	3.81	92%	4.89	1.17	3.81	92%	4.89	1.17	0.0	0%	0.00	0.00	9.78	2.35	9.96	-2.39
	10	8.69	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	9.37	-0.68
	11	10.32	148.00	4.00	92%	5.10	1.35	4.00	92%	5.10	1.35	0.0	0%	0.00	0.00	10.20	2.69	12.70	-2.38
AUG	10	9.93	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	10.14	-0.21
	10	8.94	148.00	4.00	92%	5.10	1.22	4.00	92%	5.10	1.22	0.0	0%	0.00	0.00	10.20	2.45	8.78	0.15
	11	8.24	148.00	4.00	92%	5.10	1.35	4.00	92%	5.10	1.35	0.0	0%	0.00	0.00	10.20	2.69	8.02	0.21
SEP	10	7.72	148.00	3.86	92%	4.95	1.19	3.86	92%	4.95	1.19	0.0	0%	0.00	0.00	9.90	2.38	8.93	-1.21
	10	6.72	148.00	3.36	92%	4.31	1.03	3.36	92%	4.31	1.03	0.0	0%	0.00	0.00	8.62	2.07	7.88	-1.16
	10	5.83	148.00	2.92	92%	3.73	0.90	2.92	92%	3.73	0.90	0.0	0%	0.00	0.00	7.46	1.79	6.06	-0.23
OCT	10	5.61	148.00	2.80	91%	3.55	0.85	2.80	91%	3.55	0.85	0.0	0%	0.00	0.00	7.10	1.70	5.42	0.19
	10	5.43	148.00	2.71	90%	3.41	0.82	2.71	90%	3.41	0.82	0.0	0%	0.00	0.00	6.82	1.64	5.14	0.29
	11	4.92	148.00	2.46	88%	3.02	0.80	2.46	88%	3.02	0.80	0.0	0%	0.00	0.00	6.04	1.60	4.18	0.76
NOV	10	4.86	148.00	2.43	88%	2.97	0.71	2.43	88%	2.97	0.71	0.0	0%	0.00	0.00	5.95	1.43	5.02	-0.16
	10	4.70	148.00	2.35	87%	2.86	0.69	2.35	87%	2.86	0.69	0.0	0%	0.00	0.00	5.71	1.37	4.57	0.13
	10	4.42	148.00	2.21	86%	2.69	0.64	2.21	86%	2.69	0.64	0.0	0%	0.00	0.00	5.31	1.27	4.10	0.32
DEC	10	4.66	148.00	2.33	87%	2.82	0.68	2.33	87%	2.82	0.69	0.0	0%	0.00	0.00	5.65	1.36	4.69	-0.03
	10	4.59	148.00	2.30	87%	2.78	0.67	2.30	87%	2.78	0.67	0.0	0%	0.00	0.00	5.55	1.33	4.08	0.51
	11	4.73	148.00	2.37	87%	2.88	0.78	2.37	87%	2.88	0.76	0.0	0%	0.00	0.00	5.76	1.52	5.95	0.78
							36.65				36.65				MEAN ANNUAL ENERGY IN Gwh=		73.29		

MEAN ANNUAL ENERGY	=	73.29	Gwh	
Actual downtime loss during closure	=	0%		
Actual Mean Annual Energy (GWh)	=	71.10	Gwh	
Plant Factor	= Actual Energy / Theoretical Energy	= 71.1 / 10	x 10^3 / x 8760000	

(3) If no specific order is issued on the expiry of the extended period of probation, the period of probation shall be deemed to have been successfully completed.

(4) There shall be no probation against any temporary post.

20. **Confirmation.---(1)** After satisfactory completion of the probationary period, an employee shall be confirmed by the Appointing Authority:

Provided that he/she holds a substantive post.

(2) Confirmation to a post in PEDO shall take effect from the date of initial appointment of an employee to such post.

(3) A regular employee, who was eligible to be confirmed against any post during the period of his service retires from service before being confirmed, shall not merely by reason of such retirement, be refused confirmation to such service or post or any benefits accruing there-from.

(4) There shall be no confirmation against any temporary post.

CHAPTER-V

TRAININGS

21. **Training on initial recruitment.---(1)** Every person appointed to a post in PEDO on the basis of initial recruitment shall undergo such mandatory training as may be determined by the Appointing Authority through Notification in the official Gazette.

(2) The contents, modules and duration of the training shall clearly be mentioned by the Appointing Authority in the Notification to be issued under sub-regulation (1).

22. **Training for promotion.---(1)** Promotion to posts in various basic pay scales in PEDO shall be subject to successful completion of the following mandatory trainings, namely:

(a) Senior Management Course (SMC) at WAPDA Staff College, Islamabad or from any Government Department / Institute approved by the Executive Committee, for promotion to BPS-20;

(b) Middle Management Course (MMC) at WAPDA Staff College, Islamabad or from any Government Department / Institute approved by the Executive Committee, for promotion to BPS-19;

(c) Junior Management Course (JMC) at WAPDA Staff College Islamabad or from any Government Department/ Institute approved by the Executive Committee, for promotion to BPS-18;

(d) Elementary Management Course (EMC) at WAPDA Staff College Islamabad or from any Government Department/ Institute approved by the Executive Committee, for promotion to BPS-17;

(2) The contents, modules and duration of course for trainings mentioned in sub-regulation (1), shall be such as may be determined by the Appointing Authority by notification in the official Gazette.

(3) Qualifying score for the mandatory trainings mentioned in sub-regulation (1), shall be sixty percent (60%) rendering a candidate eligible for promotion in the respective cadres. The mandatory training shall be repeated in case the secured score is less than sixty percent (60%).

(4) There shall be no exemptions from the mandatory trainings. An officer may, however, request for temporary exemption in a particular point in time but grant of such exemption would be at the discretion of the Appointing Authority.

(5) At least one to three officers shall be nominated for training on the basis of their seniority. If a person is not willing to attend the training, he/she shall be dropped at his own expense without prejudice to the rights of others and without thwarting or minimizing the chance of improving the quality of service.

(6) Officers failing to undergo mandatory training in spite of two time nominations for a training, shall stand superseded if such failure was not for the reasons beyond the control of the officers concerned.

CHAPTER-VI

SENIORITY

23. **Seniority:- (1)** The seniority inter se of the employees appointed to a post in PEDO shall be determined as follows:

(a) in the case of persons appointed by initial recruitment, in accordance with the order of merit assigned by the Selection and Promotion Board or Selection and Promotion Committee, as the case may be:

Provided that persons selected for appointment to post in an earlier selection shall rank senior to the persons selected in a later selection; and

(b) in the case of employees appointed otherwise, with reference to the date of their continuous regular appointment in the post; provided that employees selected for promotion to a higher post in one batch shall, on their promotion to the higher post, retain their inter se seniority as in the lower post.
Explanation-I: If a junior person in a lower post is promoted to a higher post temporarily in the public interest, even though continuing later permanently in the higher post, it shall not adversely affect the interest of his seniors in fixation of his seniority in the higher post.

Explanation-II: If a junior person in a lower post is promoted to a higher post by superseding a senior person and subsequently that senior person is also promoted, the person promoted first shall rank senior to the person promoted subsequently; provided that a junior person shall not be deemed to have superseded a senior person, if the case of the senior person is deferred for the time being for want of certain information or for incomplete record or for any other reason not attributable to his fault or demerit.

Explanation-III: A junior person shall be deemed to have superseded a senior person only if both the junior and the senior persons were considered for the higher post and the junior person was appointed in preference to the senior person.

MEMORANDUM OF UNDERSTANDING

BETWEEN

HYDRO POWER TRAINING INSTITUTE (HPTI) MANGLA WAPDA FOR O&M TRAINING OF PEDO'S ENGINEERS & STAFF AT HPTI

AND

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO)

1. **Parties.** This Memorandum of Understanding (hereinafter referred to as "MOU") is made and entered into by and between the WAPDA (hereinafter referred to as " Party A") for O&M Training of PEDO'S Engineers, Operators, Sub-Engineers, and Attendants at Hydro Power Training Institute (HPTI) Mangla, whose address is, Baruti Mangla Cantt, District Jhelum, Punjab, and the Pakhtunkhwa Energy Development Organization (PEDO) (hereinafter referred to as " Party B") address is 38-B/2 PEDO House,Phase-5 Hayatabad, Peshawar.

2. **Purpose and Scope.** The purpose of this MOU is to establish the terms and conditions for strengthening the Capacity Building program of Pakhtunkhwa Energy Development Organization (PFDO). This Memorandum of Understanding (MOU) creates the basis for cooperation between PEDO as an Organization for Development & Operation of Hydro Power Projects in Khyber Pakhtunkhwa Province of the Islamic Republic of Pakistan and Hydro Power Training Institute (HPTI) Mangla WAPDA, focused on strategically significant energy sector of hydropower Engineering. The Purpose of this MOU is to clearly identify the complementary roles and responsibilities of each party as they relate to the development of competent professional human resources for Pakistan growing energy and Hydropower sector. In Particular, this MOU is intended to establishment opportunities for cooperation in providing training to PEDO's Engineers and Technicians with strong focus on R&D for most modern techniques and international practices for Operation and Maintenance of Hydel Power Stations. Therefore, both parties agree to establish close cooperation in the field of creating highly competent professionals for planning, Operation & Maintenance, research collaboration, capacity building in the field of development and O&M of Hydropower Plants in Khyber Pakhtunkhwa Province of the Islamic Republic of Pakistan.

3. **Background.** For creating competent professional human resources for O&M of Hydropower Plants owned by PEDO and Development of new Projects in Khyber Pakhtunkhwa Province, it is mandatory to provide proper professional training to PEDO's newly inducted junior Engineers. The training must be focused on most

modern techniques and international practices for operation and maintenance of Hydropower Plants and their auxiliaries system.

4. **Term of MOU.** This MOU is effective upon the day and date last signed and executed by the duly authorized representatives of the parties to this MOU and shall remain in full force and shall have a long-term validity period.

5. **Responsibilities of Party A (HPTI) under this MOU.** Within the framework of this MOU, Part A shall undertake the following activities;

5.1 Provide Training to available number of employees of Pakhtunkhwa Energy Development Organization (PEDO) in on-going courses (in each annual Training Schedule) as per Schedule (as agreed by both sides).

5.2 HPTI Mangla shall impart theoretical as well as practical training to the newly inducted Junior Engineers, Operators, and Sub-Engineers/Attendants of PEDO according to the standard Training Modules worked out by HPTI for WAPDA Engineers for carrying out standard O&M of Hydropower Plants.

5.3 HPTI Mangla shall provide opportunities to PEDO Engineers to have study tours of the Power Plants of WAPDA, including Mangla, Tarbela, Neelum Jhelum and Warsak HPPs.

5.4 HPTI Mangla shall share various Operational and Maintenance issues of different equipment's like Turbines, Generators, Governors, Excitation System, Cooling, Water System, Transformers etc, and also share past history of various problems and their solution to help PEDO Engineers have clear understanding and knowledge of trouble shooting in their respective Power Plants.

5.5 HPTI Mangla shall provide opportunities to PEDO Engineers for short term sector specific courses mandatory for their promotion to next higher scales.

5.6 HPTI Mangla shall provide an opportunity to PEDO Engineers to develop a strong professional relationship with WAPDA Engineers in their joint training sessions at HPTI and during their study tours to WAPDA HPPs that will go along way in sharing their knowledge and practical problems with each other in future.

5.7 HPTI shall provide Boarding, lodging and messing facilities to all the trainees of Pakhtunkhwa Energy Development Organization (PEDO).

5.8 HPTI shall provide transportation facilities during instructional visits of training courses.

6. **Responsibilities of Party B (PEDO) under this MOU.** Within the framework of this MOU, Part B shall undertake the following activities;

6.1 PEDO shall nominate Engineers and Technicians/O&M staff for training at HPTI with batches of WAPDA Engineers and Technicians.

6.2 PEDO shall make use of the Curriculum Module Books developed for the HPTI by their consultants.

6.3 PEDO shall encourage and nominate Engineers of BPS-17 and BPS-18 for short term sector specific & refresher courses and workshops arranged at HPTI, mandatory for their promotion to next higher positions as per PEDO Service rules.

6.4 PEDO shall encourage and nominate Engineers and Sub-Engineers for undertaking educational study visits at HPTI.

6.5 PEDO will allow study visits to the Engineers and staff of HPTI to their projects & power house site.

6.6 PEDO shall make use of Laboratory and Model study facilities at HPTI for selected Engineers.

7. It Is Mutually Understood and Agreed by and B/W the Parties.

7.1 That the cooperation shall be coordinated and monitored by a team of representatives of both parties.

7.2 That this MOU shall be binding for securing the cooperation between both parties but not limiting either party to develop further forms of cooperation with any third party.

7.3 That this MOU shall govern the cooperation for a period of five years from the date of its signing and be extended upon the desire of both parties.

7.4 That this MOU can be amended or altered upon declared wish of both parties through written notice by party A to part B or vice versa.

8. Funding.

8.1 Services provided by HPTI to PEDO shall be subject to a fee, payable by PEDO as per detail given below but may be altered in future after mutual consensus depending on the expenses and rates in other Wapda institutions.

8.1.1 Engineers Training Charges: Rs 35,000/ participant / week.

8.1.2 Staff Training charges: Rs 30,000/ participant / week.

8.2 In addition to above, each trainee officers /staff member will bring an amount for messing and TA/DA that will be conveyed accordingly at the time of final nominations.

8.3 Whenever PEDO is making use of Laboratory and model study services for its projects, a user fee shall be charged to PEDO.

8.4 PEDO and WAPDA shall jointly work out the fees for mutual services and agree on them in sperate memorandum.

8.5 The payments of fees and other potentials charges shall be due and payable within a period of 30 days after submitting an invoice.

9. Effective Date and Signature

9.1 This MOU shall become effective upon the signature of parties A and B authorized members.

9.2 It shall be in force from the date of its signing for a period of five years, which will be extended with mutual consent of both parties.

9.3 Parties A and B indicate agreement with this MOU by their signatures.

10. Amendments

10.1 Either party may request changes to this MOU. Any changes, modifications, revisions or amendments to this MOU which are mutually agreed upon by and between the parties to this MOU shall be incorporated by written instrument, and effective when executed and signed by all parties to this MOU.

11. Entirety of The Agreement

11.1 This MOU, consisting of 5 Nos. of pages, represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations and agreements, whether written or oral.

12. Third Party Beneficiary Rights

12.1 The parties do not intend to create in any other individual or entity the status of a third-party beneficiary, and this MOU shall not be construed so as to create such status. The rights, duties and obligations contained in this MOU shall operate only between the parties to this MOU, and shall ensure solely to the benefit of the parties to this MOU. The provisions of this MOU are intended only to assist the parties in determining and performing their obligations under this MOU. The parties to this MOU intend and expressly agree that only parties signatory to this MOU shall have any legal or equitable right to seek to enforce this MOU, to seek any remedy arising out of a party's performance or failure to perform any term or condition of this MOU, or to bring an action for the breach of this MOU.

13. Signatures.

13.1 In witness whereof, the parties to this MOU through their duly authorized representatives have executed this MOU on thedays and dates set out below, and certify that they have read, understood, andagreed to the terms and conditions of this MOU as set forth herein.

13.2 The effective date of this MOU is the date of the signature last affixed tothis page.

[For and Behalf of PEDO]

Mohammad
Idrss Khattak Date
Dir. HR/Admin
PEDO

Date:

[For and Behalf
of WAPDA
HPTI
MANGLA] Date:

Dr. Akram Ali
Director (Mech)
HPTI Wapda
Mangla.

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CONSUMER SERVICE MANUAL

NOTE: This is a draft CSM which will be further deliberated at the time of execution based on time-to-time approvals

National Electric Power Regulatory Authority
(NEPRA)
Islamabad – Pakistan

GENERATION LICENCE

No. GL (Hydel)/15/2020

In exercise of the powers conferred upon the National Electric Power Regulatory Authority (NEPRA) 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:

Pakhtunkhwa Energy Development Organization-(PEDO)

(formerly Sarhad Hydel Development Organization/(SHYDO) Established under the SHYDO/PEDO Act of 1993 of Government of Khyber Pakhtunkhwa (KP) as amended from time to time.

for its Jabori Project Located on River Siran Tehsil Baffa, District Mansehra in the Province of Khyber PakhtunKhwa

(Total Installed Capacity: 10.824 MW Gross)

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

Given under my hand this on 29th day of April Two Thousand & Twenty and expires on 29th day of June Two Thousand & Fifty.

Registrar

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY REGISTRAR NEPRA

ENERGY PURCHASE AGREEMENT

BETWEEN

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANISATION

AND

PURCHASER NAME

RELATING TO

10.2 MW JABORI HYDRO POWER COMPLEX MANSEHRA

DATED _____

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[On stamp paper of Rs. 500]

THIS ENERGY PURCHASE AGREEMENT (this "Agreement") is made at Peshawar, Pakistan on this _____day of _____2025 (the "Effective Date").

BETWEEN

Pakhtunkhwa Energy Development Organisation (the "Seller"), a statutory corporation established under the Pakhtunkhwa Energy Development Organization Act, 1993, with its offices at Plot no. 38, Sector B-2, Phase-5 Hayatabad, Peshawar, Pakistan which expression shall include its successor.

AND

Buyer Firm Name, (the "Purchaser"), a public limited company incorporated in Pakistan, with its principal office at Plot No 209, Industrial Estate, Gadoon Amazai, Sawabi, Pakistan.

Each of the Purchaser and the Seller is hereinafter referred to as a "Party" and collectively, as the "Parties."

RECITALS

A. WHEREAS, pursuant to a Letter of Award dated _____, the Seller has agreed to sell, and the Purchaser has agreed to purchase, on a "take-and-pay" basis, the Purchaser Allocated Input Energy generated by the Facility;

B. WHEREAS, the Purchaser Allocated Input Energy will be wheeled to the Exit Point using HAZECO's Distribution System;

E. WHEREAS, on or about the date hereof, the Seller is entering into an Energy Wheeling Agreement with HAZECO;

NOW, THEREFORE, the Parties hereby agree as follows:

1. Definitions; Rules of Interpretation

1.1. Definitions

Terms and expressions used in the Wheeling Regulations shall have the same meaning when used in this Agreement, provided that, in case of amendments to the Wheeling Regulations, such terms and expressions shall continue to bear the meaning ascribed thereto in the Wheeling Regulations in force on the date of this Agreement for the purposes of construction and interpretation of this Agreement.

Further, the following capitalised terms shall bear the respective meanings ascribed to them below in this Agreement:

Actual Output Energy (AOE)	The whole or part of the Purchaser Allocated Input Energy actually received as Output Energy by the Purchaser at the Exit Point and determined in accordance with schedule 3 of the Energy Wheeling Agreement, which schedule 3 of the Energy Wheeling Agreement is incorporated herein by reference for the purposes of calculation of the AOE as if expressly set out in this Agreement.

Agreement	This Energy Purchase Agreement, together with all Schedules, as may be amended by the Parties from time to time
Billing Cycle	The period starting at 00:00 hours of the first day of each month and ending at 24:00 hours of the last day of the same month, provided that, the first Billing Cycle shall commence at 00:00 hours on the Commencement Date and end at 24:00 hours of the last day of the month in which the Commencement Date occurs.
Commencement Date	The date on which the sale and delivery of the Purchaser Allocated Input Energy shall commence for the purposes of this Agreement, which date shall be notified in writing by the Seller to the Purchaser at least seven (7) days in advance (the "**Commencement Notice**").
Coordination Committee	The committee described in Section 5.
Due Date	The due date for a payment due by a Party to the other Party in terms of this Agreement or in an invoice delivered under this Agreement.
Effective Date	The date this Agreement is signed by both Parties.
Energy Payment	The consideration payable by the Purchaser to the Seller for the AOE, determined in accordance with Section 9.1.
Energy Price	The amount in Rupees per kWh identified as the Energy Price in Schedule 1, as adjusted from time to time in accordance with the provisions thereof.
Energy Wheeling Agreement	The Energy Wheeling Agreement entered into or to be entered into by and between the Seller and HAZECO, as may be amended by the parties thereto from time to time.
Entry Meter	The electricity meter installed at the Entry Point installed at Facility, as defined in Schedule 3.
Entry Meter Reading Confirmation	The meaning given to that term in Section 7.2(a).
Entry Point	The meaning given to the term in Schedule 3.
Excusable Event	A Force Majeure Event, an outage, dispatch instructions from the National Power Control Centre, the national grid operator, conditions occurring in the Distribution System, an emergency, change in hydrological conditions, outages or other operating events occurring at the Facility, and other causes beyond the reasonable control of the Seller, that result in total or partial reduction of the electrical output of the Facility or in total or

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	partial reduction in supply of the same through HAZECO to the Purchaser.
Exit Meter	The electricity meter installed at the Exit Point at the Purchaser's premises, as defined in Schedule 3.
Exit Meter Reading Confirmation	The meaning given to that term in Section 7.2(b).
Exit Point	The meaning given to the term in Schedule 3.
Facility	hydropower generation facility known as the JABORI Hydro Power Plant, located at MANSEHRA District MANSEHRA, KP, owned and operated by PEDO pursuant to the generation licensed numbered GL(Hydel)/15/2020, as may be amended from time to time.
Guarantee	The bank guarantee furnished by the Purchaser as payment security in terms of Section 2.3.
Letter of Award	The Letter of Award No. ---- dated------- issued by PEDO, as may be amended, extended or clarified prior to the Effective Date.
NEPRA	The National Electric Power Regulatory Authority established by the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997 (XL of 1997), and any successor or substitute regulatory agency with authority and jurisdiction over the electricity sector in Pakistan.
Party	Each of the Purchaser and the Seller, and the "Parties" means both of them.
Pass-Through Items	Certain costs or charges identified as Pass-Through Items in Schedule 1.
Purchaser Allocated Input Energy	30 % of daily Input Energy, allocated by the Seller to the Purchaser under this Agreement, as such percentage may be modified by agreement in writing between the Parties.
Reference Energy Price	Rs-------per kWh, as stated in the Letter of Award.
Term	A period of ten (10) consecutive years commencing on the first day of the month in which the Commencement Date occurs, as may be extended by agreement in writing of the parties.

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Wheeling Regulations	National Electric Power Regulatory Authority (Wheeling of Electric Power) Regulations, 2016 as notified through SRO 549(I)12016 dated 13-06-2016.
Wheeling Charges	Wheeling Charges shall be the wheeling charges approved by NEPRA in the last applicable tariff determination of HAZECO, as was notified by the Federal Government

1.2 Rules of Interpretation

In this Agreement, except where the context otherwise requires:

i. "day" means a period of twenty-four (24) consecutive hours, commencing at 12:00 midnight, and "daily" has the corresponding meaning;

ii. "month" means a calendar month according to the Gregorian calendar;

iii. "year" means a consecutive period of twelve (12) months;

iv. references to Distribution System are to HAZECO's Distribution System, and all references in the Wheeling Regulations to Distribution System for the purposes of the application of the Wheeling Regulations to this Agreement are to HAZECO's Distribution System;

v. if a day or a period on or within which performance by a Party of an obligation under this Agreement is due is not a working day, being a day on which banks are open for business in the Province of Khyber Pakhtunkhwa, then the obligation shall be due for performance on the first following working day;

vi. other than where the context determines otherwise, the singular includes the plural and vice versa;

vii. unless otherwise provided herein, whenever a consent or approval is required by one Party from the other Party, such consent or approval shall not be unreasonably withheld or delayed; and

viii. in carrying out its obligations and duties under this Agreement, each Party shall have an implied obligation of good faith.

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2. COMMENCEMENT DATE; TERM

2.1 Commencement Date

(a) The Seller is entitled to serve the Commencement Notice on the Purchaser on the last to occur of the following conditions:

i. the grant of second-tier supply authorization by NEPRA to the Seller under the NEPRA Licensing (Generation) Rules, 2000, in respect of the Purchaser;

ii. the execution of the Energy Wheeling Agreement between the Seller and HAZECO; and

iii. receipt by the Seller of the Guarantee from the Purchaser, whereupon this Agreement shall become operative, and the sale and purchase of Purchaser Allocated Input Energy shall commence on the Commencement Date.

(b) If the Commencement Date has not occurred within six (6) months of the date of signing of this Agreement, either Party may terminate this Agreement by notice in writing to the other Party, whereupon the Parties shall have no further rights against each other and shall be released from all further obligations under this Agreement, subject to any rights and obligations that may have accrued before the date of such termination.

2.2 TERM

Unless terminated earlier in accordance with its terms, this Agreement shall continue in full force and effect for the Term.

2.3 PAYMENT SECURITY

(a). Within seven (7) days of the date of signing of this Agreement, the Purchaser shall furnish the Guarantee to the Seller as payment security for the Energy Payment and the Wheeling Charges calculated in the following manner:

- One-half of the annual electricity cost of the Purchaser from JHPP, with the annual electricity cost being the product of the (i) Purchaser Allocated Input Energy (Percentage), (ii)—— GWh being estimated annual production, and (iii) the Energy Price prevailing on the date the guarantee is issued and thereafter on its annual renewals; Plus
- One-half of the annual Wheeling Charges to be paid to HAZECO, with the annual Wheeling Charges being the product of the (i) Purchaser Allocated Input Energy (Percentage), (ii) -
  --- GWh being estimated annual production, and (iii) the Wheeling Charges prevailing on the date the guarantee is issued and thereafter on its annual renewals.

(b). The Guarantee shall be:

(i). in the form set out in Schedule 4;

(ii). issued by a scheduled bank in Pakistan acceptable to the Seller and having a credit rating of at least "AA-" according to the PACRA rating scale for financial institutions; and

(iii). valid for twelve (14) months when issued or renewed.

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(c). The Purchaser shall renew the Guarantee on the same terms each year during the Term no later than two (2) months before its then expiry date.

(d). The Guarantee shall not lapse for any draws thereunder and the Purchaser shall cause the sum guaranteed under the Guarantee to be replenished to its full amount in case of any partial or entire draws made by the Seller on the Guarantee within three (3) working days of the draws.

3. SALE AND PURCHASE OF ENERGY

3.1 SALE AND PURCHASE

Subject to the terms of this Agreement, the Seller shall sell, and the Purchaser shall purchase the Actual Output Energy (AOE), during the Term, in consideration whereof the Purchaser shall pay the Energy Payment to the Seller and the Wheeling Charges to HAZECO in each Billing Cycle.

3.1 A Seller and Purchaser shall follow process provided hereunder for sale of Banked Energy to Purchaser:

a) Purchaser shall notify intention, in writing within 10 (ten) working days of end of month, to the Seller to acquire Banked Energy available due to lower 'Actual Output Energy' compared with 'Purchaser Allocated Energy' based on statements available as per Section 3.5 or other information available. The Banked Energy can be acquired immediately following month after its availability. On receipt of the notification, Seller shall pass instructions to HAZECO, under the Energy Wheeling Agreement to provide Banked Energy to the Purchaser.

b) Seller and Purchaser may discuss availability of Banked Energy in any of the meetings of Coordination Committee that relate to lower combined 'Actual Output Energy' of all purchasers compared with total Input Energy. In case, Purchaser is interested in acquiring the said Banked Energy and provided that no notification for said Banked Energy has been received by Seller by end of 15th (fifteenth) working days of its availability, Purchaser can notify intention for purchasing the same to the Seller. Seller may pass instructions to HAZECO, under the Energy Wheeling Agreement, on first come first serve basis and subject to availability of Banked Energy, to provide the requested Banked Energy to the Purchaser.

3.2 ENERGY PAYMENT

Subject to Section 3.8 (payment disputes),

The Energy Payment for each Billing Cycle shall be calculated as follows:

$$EP_{MNT} = EP_{BC} * (AOE + BE) + Taxes$$

Where:

EP_{MNT} = Energy Payment for the Billing Cycle

EP_{BC} = Energy Price for the Billing Cycle, calculated in accordance with Schedule 1

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AOE	=	Actual Output Energy in kWh for the Billing Cycle, determined in accordance with schedule 5 of the EWA
BE	=	Banked Energy, if any, delivered to the Purchaser on the Billing Cycle
Taxes	=	Applicable sales tax on sale of electricity to be paid to Purchaser for onward submission to relevant tax authorities, as per applicable law

3.3 WHEELING CHARGES PAYMENT

(a). The Purchaser shall deliver to the Seller promptly a copy of the Wheeling Charges Invoice received from HAZECO for a Billing Cycle. The Purchaser shall pay the Wheeling Charges, along with applicable sales tax, directly to HAZECO, with a copy of the payment receipt delivered to Seller, and shall keep the Seller fully indemnified, including for any late payment charges and penalties, for Purchaser's failure to timely and properly pay the Wheeling Charges Invoice on or before its Due Date to HAZECO.

(b). In case of default by the Purchaser in payment of Wheeling Charges to HAZECO on or before the due date thereof, unless there is manifest error in the Wheeling Charges Invoice and a dispute has formally been raised by the Purchaser on that basis with HAZECO and with the Coordination Committee, the Seller shall be entitled to draw on the Guarantee and pay the Wheeling Charges to HAZECO.

3.4 PASS-THROUGH ITEM(S)

The Purchaser shall pay the Seller any amount for the Pass-Through Items evidenced in accordance with this Agreement and Schedule 1. Each invoice for the Pass-Through Items shall be accompanied with such information as it is reasonably necessary for the Purchaser to determine the accuracy thereof, failing which, the Seller shall supply such information on Purchaser's reasonable request.

3.5 DELIVERY OF COPIES OF NOTICES AND STATEMENTS UNDER THE EWA

The Seller shall deliver to the Purchaser promptly and without delay copies of the following notices and statements delivered by the Seller to HAZECO under the Energy Wheeling Agreement:

(i). Wheeling Notices and Revised Wheeling Notices under section 3.3 of the EWA.

(ii). Entry Meter Reading Confirmation under section 4.2(a) of the EWA.

(iii). the Purchaser Allocated Input Energy Statement under section 6.1 of the EWA.

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(iv). the Actual Output Energy Statement under section 6.2 of the EWA; and

(v). Instructions issued to HAZECO with regard to Banked Energy related to Purchaser.

3.6 INVOICING PROCEDURE

(a). The Seller shall invoice the **Energy Payment** for a Billing Cycle to the Purchaser within thirty (30) days after the end of such Billing Cycle. The Seller's invoice shall show, for the relevant Billing Cycle:

(i). the Energy Payment due,

(ii). the Energy Price,

(iii). the Actual Output Energy,

(iv) any Pass-Through Item,

(v). any late payment charges in respect of previous unpaid invoices; and

(vi). sales tax or other taxes, if any, payable by or collectible from the Purchaser under the applicable law.

(b). The Seller shall cause HAZECO to directly invoice or forward the related **Wheeling Charges** invoice to Purchaser for the relevant Billing Cycle, and the Purchaser covenants with the Seller to pay the Wheeling Charges billed by HAZECO directly to HAZECO and the Purchaser shall keep the Seller fully indemnified against any loss, demand, or claim of HAZECO in respect of the Wheeling Charges. The Purchaser shall provide the Seller a copy of HAZECO's Wheeling Charges Invoices forthwith, if received directly by Purchaser.

(c). The information in support of the Energy Price stated in the Seller's invoice shall include, inter alia:

(i). the relevant GOP Bureau of Statistics publication showing the relevant wholesale price index values; and

(ii). invoices or payment receipts for any amount claimed as Pass-Through Items.

(d). The Purchaser may require clarification or substantiation of any amount included in an invoice by delivering notice of such requirement to the other Party. The Party receiving such request shall provide the requested clarification and substantiation of such invoice within five (5) days of its receipt of such request.

(e). The Purchaser shall provide to the Seller a copy of HAZECO's electricity bill for a given month forthwith upon receipt for the related Exit Meter at Purchaser's premises.

3.7 PAYMENT

(a). Subject to Section 3.8,

(i).the Purchaser shall pay the Seller the amount shown on an invoice delivered in accordance with Section 3.6(a) and Section 3.6(b), less deductions for any disputed amounts shown in the invoice, on or before the tenth (10th) day following the day the invoice is received by the Purchaser; and

(ii). the Purchaser shall pay the Wheeling Charges to HAZECO, less deductions for any amount disputed, on or before the tenth (10th) day following the day the invoice for Wheeling Charges is received by the Purchaser.

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(b). Each Party shall have the right to set off any amounts due and payable by it to the other Party under this Agreement against any and all amounts then due and payable to it by the other Party under this Agreement. Such rights of set-off shall relate only to amounts that are then due and payable to and by a Party and are undisputed or have been determined to be payable.

(c). The Purchaser's obligation to pay any amount under this Agreement shall remain in full force and effect, and shall not be affected by the provisions of the Guarantee, except to the extent that the Purchaser's payment obligation has been discharged under the Guarantee.

(d). Payments received by either Party shall be applied against outstanding invoices on the 'first in, first out' principle, so that the invoices that have been outstanding the longest (in whole or in part) shall be paid first.

3.8 PAYMENT DISPUTE

(a). At any time within five (5) days after receipt of an invoice, a Party may dispute the amount of such invoice (or any part thereof) by notice to the other Party, specifying the invoice disputed, the amount disputed and the reasons for disputing the invoice. Within five (5) days of receiving the notice disputing an invoice, the Parties shall meet to resolve the dispute. If the Parties cannot resolve the dispute within ten (10) days of receipt of the notice, the matter will be settled in terms of Section 10 (Resolution of Disputes).

(b). Upon resolution of the dispute under Section 10, any amounts disputed and not paid but determined to be owed by a Party or any amounts paid and determined not to be owed shall be paid or repaid to the other Party, as the case may be, within seven (7) days after such resolution or determination, together with late payment charges as per Section 11.2 thereon, but excluding the date initially owed or paid until and including the date paid or repaid, as the case may be.

4. OPERATION OF THE FACILITY

4.1 OPERATION OF THE FACILITY

The Seller shall operate and maintain the Facility with good utility practices. Subject to the foregoing, the Seller does not warrant that the operation of the Facility will remain uninterrupted. In particular, the Purchaser acknowledges that the operation of the Facility may be partially or wholly interrupted due to an Excusable Event resulting in a reduction of the Actual Output Energy at the Exit Point without the Seller being liable in such an event.

4.2 DELIVERY AT THE EXIT POINT – TAKE AND PAY

The Seller's obligation is to deliver the total Input Energy at the Entry Point for onward wheeling by HAZECO of Purchaser Allocated Input Energy to the Exit Point, and the Seller makes no representation or warranty of the proper performance of its transport and delivery obligations by HAZECO under the Energy Wheeling Agreement. The Seller does not represent or warrant the delivery of the entire quantity of the Purchaser Allocated Input Energy at the Exit Point, it being understood that nothing in this Agreement is to be construed as making the Seller liable to sell any fixed quantity of kilowatt hours of electricity to the Purchaser.

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4.3 OUTAGES

(a). The Seller may undertake scheduled outages as deemed necessary or required, provided the Seller gives thirty (30) days prior written notice of the scheduled outage to the Purchaser and the Coordination Committee, stating the time, date and duration of the scheduled outage and the extent to which such outage will in the reasonable estimate of the Seller result in the total or partial reduction of the electrical output of the Facility.

(b). The Seller shall give prompt notice to the Purchaser and the Coordination Committee of unscheduled outages as soon as reasonably possible after their occurrence, setting forth the likely cause thereof (if known at the time), together with an estimated time-frame within which such unscheduled outage is likely to end, on the basis of information available to the Seller at that time.

5. COORDINATION COMMITTEE

5.1 NOMINATION OF THE COORDINATION COMMITTEE

(a). The Parties nominate the following persons to be their representatives on the Coordination Committee:

Purchaser's nominee

Seller's nominee

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HAZECO has already nominated _____ to be the HAZECO's nominee on the Coordination Committee, under the Energy Wheeling Agreement.

(b). Either Party may replace its Coordination Committee member at any time upon one week's prior written notice to the other Party and to HAZECO.

(c). Each Party warrants that its nominee (including any replacement or authorized representatives of the nominees identified in Section 5.1a and 5.1b) has the relevant experience in view of the scope of work of the Coordination Committee.

(d). The Coordination Committee shall develop procedures for the holding of meetings and the keeping of minutes of meetings.

(e). The Coordination Committee shall have the right, on a recurring basis and upon reasonable prior notice to the Purchaser, Seller and HAZECO, as the case may be, to visit their respective facilities and sites in connection with the performance of its functions under this Agreement and the Energy Wheeling Agreement. Each Party shall assist in arranging any such observation visits.

(f). The Purchaser agrees to follow the requirements of Energy Wheeling Agreement with regard to any subcommittees, as may be established, by the Coordination Committee for separation of functions with other purchasers.

5.2 DUTIES OF THE COORDINATION COMMITTEE

(a). The Coordination Committee shall be responsible for enabling the Parties in the implementation of this Agreement and the Energy Wheeling Agreement in a coordinated manner, including in relation to the following matters:

(i). the operation and maintenance of the electrical facilities and Meters at the Entry Point and the Exit Point;

(ii). billing procedures of Energy Price and the Wheeling Charges and any Taxes in relation thereto and improvements in such procedures for timely and effective billing and collections;

(iii). the steps to be taken on the occurrence of a Force Majeure Event or a shutdown or reduction in generation;

(iv). safety; prudent utility practices; review and revision of protection schemes;

(v). inspection, testing and calibration of the Entry Meters and the Exit Meters and adjustments to be made to the billing invoices on the Entry Meters or Exit Meters being found to be inaccurate in excess of the agreed limits since the last inspection pursuant to section;

(vi). availability of Banked Energy; and

(vii). any other matter agreed upon by the Parties.

(b). The Coordination Committee shall have no power or authority to amend or modify the provisions of this Agreement or to determine the rights or obligations of the Parties under this Agreement.

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5.3 MAINTENANCE OF OPERATING RECORDS

(a). Each Party shall keep complete and accurate records and all other data reasonably required for the proper administration of this Agreement and shall make copies thereof available to the Coordination Committee upon request of the other Party. Such data and records may include, but shall not be limited to, the operating logs of the Facility, the hydrological conditions, the meter readings and the back-up meter readings.

(b). All such records and data shall be maintained for a minimum of sixty (60) months after the creation of such record or data.

6. SYSTEM OBLIGATIONS

6.1 SELLER'S COVENANT

The Seller shall maintain, and if required, augment and upgrade, the Entry Point and the Entry Meter at all times during the Term for the Entry Point and the Entry Meter to be in compliance with the requirements of this Agreement and the Distribution Code.

6.2 PURCHASER'S COVENANT

The Purchaser shall maintain, and if required, augment and upgrade, the Exit Point and the Exit Meter at all times during the Term for the Exit Point and the Exit Meter to be in compliance with the requirements of this Agreement and the Distribution Code.

7. METERING

7.1 WHEELING METERS

(a). The Wheeling Meters shall be used to measure the total Input Energy and to derive the Purchaser Allocated Input Energy comprised therein at the Entry Point and the Actual Output Energy at the Exit Point.

(b). The Wheeling Meters shall have an accuracy class of zero point two percent (0.2%) or subject to the requirements of Energy Wheeling Agreement. The requirements of Energy Wheeling Agreement will prevail in this regard, if different.

(c). The testing and recalibration (if necessary) of the Wheeling Meters shall be carried out by the Party which installed the relevant meter under supervision of and coordination by the Coordination Committee.

(d). A request by a Party (or by HAZECO under the EWA) for testing and recalibration of a Wheeling Meter shall be made to the Coordination Committee who shall take steps to have the testing and recalibration done at the expense of the related Party within seven (7) working days of the request.

7.2 READING

(a). On the Commencement Date and thereafter on the last day of each month, the Entry Meter shall be jointly read by representatives of HAZECO and Seller at the Coordination Committee and results thereof signed by respective members (the "**Entry Meter Reading Confirmation**").

(b). On the Commencement Date and thereafter on the last day of each month, the Exit Meter shall be read by the Coordination Committee and results thereof signed by its members (the **"Exit Meter Reading Confirmation"**).

7.3 ATTENDANCE

(a). A Party shall not read, test, adjust, repair or replace its Wheeling Meter without giving two (2) days' notice to the Coordination Committee and without the presence of all the members of the Coordination Committee. If a nominee of a party on the Coordination Committee is unable to attend, then such party has the authority to nominate another person as its representative on the Coordination Committee for such specific occasion.

(b). Where any of the Seller's, Purchaser's or HAZECO's nominee on the Coordination Committee fails to attend any meter reading, and such party does not nominate another representative for the specific occasion, the nominees of the attending parties may read the Wheeling Meters and such readings shall be binding on the Parties and HAZECO, provided that, the attending party(ies) shall deliver the readings to the non-attending party(ies) within two (2) working days after the reading is taken.

7.4 TAMPERING

The Parties shall ensure that their respective contractors, employees, agents and invitees shall not tamper with the Wheeling Meter for which it is responsible.

7.5 USE OF CHECK METERS

The Parties are entitled to install check meters that are compliant with the requirements of the Applicable Documents. Where any Wheeling Meter is out of service due to repair, maintenance or testing, the relevant check meter shall be used to record the Input Energy and the Output Energy. The check meters if installed shall be of the same specifications as the Wheeling Meters and shall be sealed, tested, calibrated, recalibrated and read in the same manner as the Wheeling Meters.

7.6 SEALING

The Wheeling Meters and the check meters, if any, will be jointly sealed by the Parties under supervision of the Coordination Committee. Seals shall only be broken in the presence of the Coordination Committee.

7.7 TESTING

The Coordination Committee, at the request of either Party or HAZECO, shall test the accuracy of one or more Wheeling Meters at any time that the Parties disagree on the quantum of Input Energy and Output Energy into and out of the Distribution System and such disagreement in the reasonable opinion of the requesting party owes to inaccuracy of the Wheeling Meters. In such eventuality, the Coordination Committee shall test the accuracy of the Wheeling Meter in question and require the responsible Party to recalibrate its Wheeling Meter, if necessary, to bring it in conformity with the requirements of Section 7 and Energy Wheeling Agreement.

7.8 INACCURACIES

Where, as a result of testing, any Wheeling Meter is found to be inaccurate by more than zero

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decimal point five percent (0.5%), or is otherwise unavailable or functioning improperly, then the correct amount of Input Energy and/or the Output Energy, as the case may be, for the period when inaccurate measurements were made shall be determined as follows:

(a). the readings of the relevant check meters, if installed, shall be used, unless a test of the check meter reveals that it is inaccurate by more than zero decimal point five percent (0.5%) or is otherwise unavailable or functioning improperly;

(b). if the check meter is not installed or is found to be inaccurate by more than zero decimal point five percent (0.5%), or is otherwise unavailable or functioning improperly, then the Parties with HAZECO shall prepare an estimate of the correct reading on the basis of all available information and such guidelines as may be determined by the Coordination Committee;

(c). if the Parties fail to agree upon an estimate for the correct reading, the dispute shall be referred by either Party for resolution in accordance with Section 10 for resolution of disputes; and

(d). the difference between the previous payments by the Purchaser for the period of inaccuracy and the recalculated amount shall be offset against or added to the next payment to the Seller under this Agreement, as appropriate. If the period of inaccuracy cannot be accurately determined, it shall be deemed to have begun on the date which is midway between the date the meter was found to be inaccurate and the date of the last meter reading accepted by the Parties as accurate.

8. FORCE MAJEURE

8.1 EXCLUSIONS

Force Majeure Events shall not include events or circumstances that arose due to a breach of any obligation of the affected Party under this Agreement or due to non-compliance with any applicable law.

8.2 NOTICE

On occurrence of a Force Majeure Event, the affected Party shall immediately give the other Party and HAZECO written notice of the Force Majeure Event (including reasonable details thereof). Such notice shall include a reasonable estimate by the affected Party of when it expects the Force Majeure Event to end enabling the affected Party to resume its obligations under this Agreement.

8.3 EFFECT OF FORCE MAJEURE

So long as the Party affected by the Force Majeure Event complies with the requirements of Section 8.2 and has taken reasonable steps to mitigate the effects of a Force Majeure Event, then the affected Party shall not be liable for any failure or delay in performing its obligations (other than payment obligations) under or pursuant to this Agreement during the pendency of the Force Majeure Event, provided however, that no relief shall be granted to the affected Party pursuant this Section 8.3 to the extent that such failure or delay would have nevertheless been experienced by the affected Party had the Force Majeure Event not occurred.

8.4 DUTY TO MITIGATE

The affected Party shall use all reasonable efforts to mitigate the effects of a Force Majeure Event,

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including, but not limited to, the payment of reasonable sums of money, which sums are reasonable in light of the likely efficacy of the mitigation measures.

8.5 CESSATION

On cessation of the Force Majeure Event, the affected Party shall immediately notify in writing to the other Party of its ability to recommence performance of its affected obligations under this Agreement.

9. TERMINATION

9.1 EVENT OF DEFAULT

(a). The following shall be events of default by a Party:

(i). a Party's failure to pay any undisputed amount by the Due Date for the relevant invoice,

(ii). the dissolution or winding-up of a Party, except for the purpose of amalgamation or reconstruction where the amalgamated or the reconstructed entity undertakes to perform the Party's obligations under this Agreement;

(iii). any material breach by a Party of this Agreement that is not remedied within thirty (30) days after the non-defaulting Party's notice stating that a material breach has occurred and is continuing and describing the material breach in reasonable detail; or

(iv). in respect of the Purchaser, the Guarantee or Payment Security ceasing to remain valid or the Purchaser's failure to renew the Guarantee in terms provided in Section 2.3.

(v). in respect of the Purchaser, the Guarantee or Payment Security is not fully replenished in terms provided in Section 2.3 within (30) days, when due.

9.2 TERMINATION FOR DEFAULT

Upon the occurrence of an event of default by a Party, the non-defaulting Party may serve a notice on the defaulting Party to cure the default. If the default is not cured within thirty (30) days of the notice to cure the default, the non-defaulting Party may terminate this Agreement by delivering a notice of termination to the defaulting Party, whereupon this Agreement shall terminate on the date specified in the notice of termination.

9.3 NON-DEFAULT TERMINATION

The Seller shall have the right to terminate this Agreement without cause by giving a thirty (30) day prior written notice of termination to the Purchaser.

9.4 CONSEQUENCES OF TERMINATION

(a). Upon termination of this Agreement or on its expiry, the Parties shall have no further obligations or liabilities hereunder except for those obligations and liabilities that:

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(i). arose prior to such termination; and

(ii). expressly survive such termination, including without limitation, the obligation to pay amounts due under this Agreement.

(b). Notwithstanding the foregoing, termination of this Agreement in accordance with its terms shall not affect the validity and enforceability of the Guarantee by the Seller of any payment obligations of the Purchaser outstanding beyond their Due Date.

9.5 OTHER REMEDIES

The rights of the Parties provided herein to terminate this Agreement do not preclude Parties from exercising other remedies that are provided herein or may be available by law. Remedies are cumulative, and the exercise, or failure to exercise, one or some of them shall not operate or be construed as a waiver of such remedy or any other remedy available.

10. RESOLUTION OF DISPUTES

Any dispute between the Parties on any matter arising out of or in connection with this Agreement that is not resolved by negotiations may be referred by either Party to NEPRA for resolution in exercise of its powers under section 47 of the NEPRA Act read with regulation 20 of Wheeling Regulations. The Purchaser submits to NEPRA's role as an adjudicator to the maximum extent permitted by law and waives any objections it may have to the adjudication of the dispute by NEPRA. Subject as aforesaid, either Party may avail such remedies as are available under applicable law if it remains dissatisfied with NEPRA's decision, provided it serves a notice of dissatisfaction and intention to litigate to the other Party within fifteen (15) days of the date of NEPRA's decision and thereafter files the appropriate legal proceedings within thirty (30) days thereafter, failing which the relevant Party shall be deemed to have accepted NEPRA's decision and to have waived any objection thereto to the maximum extent permitted by the applicable law.

11. MISCELLANEOUS PROVISIONS

11.1 REPRESENTATIONS AND WARRANTIES

(a). Each Party represents and warrants to the other Party that the execution of this Agreement has been duly authorized by all required action on its part and this Agreement constitutes its legal, valid and binding obligations.

(b). Each Party represents and warrants to the other Party that it shall perform its obligations under this Agreement in compliance with all applicable laws and shall maintain in full force and effect during the Term all licenses, consents, approvals and authorizations required under its constitutive documents and the applicable laws for it to perform its obligations under this Agreement.

11.2 LATE PAYMENTS

All payments due under an invoice shall incur late payment charges from the day after the Due Date until actual payment. The late payment charges shall be KIBOR plus three (3) percent per annum (on the basis of a three hundred and sixty five (365) day year), compounded semi-annually, calculated for the actual number of days for which the relevant amount remains unpaid. For the

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purposes hereof, KIBOR means the average "ask side" Karachi Inter-Bank Offer Rate for Rupee deposits for a period of three (3) months.

11.3 TAXES

Invoices and payments under this Agreement shall be subject to the taxes, cesses, duties and levies (collectively, "taxes") applicable thereto under the applicable laws. A payment subject to withholding tax shall be made net of the applicable withholding tax, with evidence of deduction and payment to the relevant revenue authority furnished to the other Party. Sales taxes and other taxes required under the applicable laws to be added to invoices for collection from the payor of the invoice shall be so added and shall be paid by the Party receiving the invoice. Save as aforesaid, each Party shall bear its own taxes that, under the applicable laws, are not stipulated to be passed-through to or collected from the recipient or payor of an invoice.

11.4 SET-OFF

Each Party shall have the right to set off any amounts due and payable by it to the other Party under this Agreement against any and all amounts then due and payable to it by the other Party under this Agreement. Such rights of set-off shall relate only to amounts that are then due and payable to and by a Party and are undisputed or have been determined to be payable in terms of Section 10 *(Dispute Resolution)*.

11.5 NO ASSIGNMENT

Neither this Agreement nor any right, privilege or delegation hereunder may be assigned or transferred in whole or in part by a Party without the prior written consent of the other Party and any attempted assignment or transfer without such written consent shall be void.

11.6 NOTICES

(a). Notices and other communications by a Party shall be in writing and either delivered personally or by courier or sent by facsimile or email to the address or number of the other Party specified below:

IF TO THE PURCHASER:

Attention: _____

Facsimile No: _____

Email: _____

IF TO THE SELLER:

Attention: _____

Facsimile No: _____

Email: _____

provided that a Party may change the address to which notices are to be sent to it by giving not less than thirty (30) days' prior written notice to the other Party in accordance with this Section 22.1.

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(b). No notice or other communication shall be effective until received or deemed received. Notices or other communications shall be deemed to have been received by the receiving Party:

(i). when delivered if personally delivered;

(ii). five (5) working days after sending, if sent by registered post or courier; or

(iii). upon sending if sent by facsimile, subject to confirmation of an uninterrupted transmission report and provided that a hard copy is despatched not later than the following working day to the recipient by courier or personal delivery;

(iv). upon sending if sent by Email, subject to the sender not receiving a mail delivery failure notification, and provided that a hard copy is despatched not later than the following working day to the recipient by courier or personal delivery.

11.7 Amendments; Waiver

(a). An amendment or modification of this Agreement shall be effective or binding on a Party only if made in writing and signed by a duly authorized representative of each of the Parties.

(b). No default by either Party in the performance of or compliance with any provision of this Agreement shall be waived or discharged except with the express written consent of the other Party. No waiver by either Party of any default by the other in the performance of or compliance with any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default whether of a like or different character.

11.8 Successors and Assigns

This Agreement shall be binding upon, and inure to the benefit of, the Parties and their respective permitted successors and permitted assigns.

11.9 Severability

If any term of this Agreement is determined by a court or other authority of competent jurisdiction to be invalid, void, illegal, unenforceable or against public policy, the remaining provisions of this Agreement shall remain in full force and effect and will not be affected by such determination in any way.

IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement in Peshawar, Pakistan as of the date first above written.

The Seller Signed for and on behalf of Name: Address: NIC:	**Pakhtunkhwa Energy Development Organisation)**

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In the presence of Name: Address: NIC:	
The Purchaser Signed for and on behalf of Name: Address: NIC:	
In the presence of Name: Address: NIC:	

SAMPLE

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SCHEDULE 1

TARIFF, INDEXATION AND ADJUSTMENT

Introduction

This Schedule 1 is attached to and constitutes an integral part of the Energy Purchase Agreement dated _____(the "EPA" or the "Energy Purchase Agreement") by and between the Purchaser and the Seller. This Schedule is divided into the following Parts:

(a) Part I: The calculation of the Energy Price;

(b) Part II: The Pass-Through Item(s);

(c) Part III: The procedure for indexation and adjustments for price index changes; and

(d) Part IV: Reference Tariff and components.

Part I: ENERGY PRICE

1.1 From and after the Commencement Date, the Energy Price (EP) for the Energy Payment for the relevant Billing Cycle shall be *the lower of*:

the Indexed Energy Price calculated in the manner stated in section 1.2 of this Part I, and

the Below-Grid Energy Price calculated in the matter stated in section 1.3 of this Part I.

1.2 The Indexed Energy Price (IEP) shall be adjusted for the indexations and adjustments on a quarterly basis, being 1 January through 31 March, 1 April through 30 June, 1 July through 30 September and 1 October through 31 December (each, a "Quarter"), as follows:

$$IEP = IEP_{REV}$$

$$IEP_{REV} = FC + VC_{REV} + WUC_{REV}$$

Where:

IEP_{REV} = Indexed Energy Price for the relevant Billing Cycle

FC = the fixed component of the IEP expressed in Rs. / kWh.

VC_{REV} = the indexation-adjusted component of the IEP, expressed in Rs. / kWh, in the Quarter in which the relevant Billing Cycle

occurs.

WUC_{REV} = the indexation adjusted Water Use Charge in Rs. / kWh, in the Quarter in which the relevant Billing Cycle occurs.

1.3 If the IEP determined under section 1.2 above for the relevant Quarter plus Wheeling Charges is equal to or higher than the discounted Grid Price, then the IEP shall be discounted to a level where the IEP plus the Wheeling Charges for the relevant Billing Cycle result in a 0% discount on the Grid Price., to be calculated as follows:

$$IEP_{REV} + WC_{BC} = GP * X\%$$

Where:

IEP_{REV} = the indexation-adjusted Energy Price for the relevant Billing Cycle calculated under section 4.1;

WC_{BC} = the Wheeling Charges for the relevant Billing Cycle.

GP_t = the prevailing off-peak per kWh tariff applicable to the B3 customer category of industrial consumers under the tariff allowed to HAZECO by NEPRA for the relevant Billing Cycle;

$X\%$ = the discount applied on the GP to balance the equation.

Part 2: PASS-THROUGH ITEMS

Federal and Provincial sales tax, if any, applicable on the Wheeling of electricity that is paid by the Seller to HAZECO and remain unrecovered from Purchaser shall be a Pass Through item.

Part 3: INDEXATION AND ADJUSTMENT FACTORS

Variable Component

3.1 The Variable Component of the Energy Price shall be indexed by using the inflation adjustment factor calculated according to the following formula;

$$VC_{Rev} = VC_{Ref} * CPI_{Rev} / CPI_{Ref}$$

Where:

VC_{Rev} = the indexation-adjusted component of the IEP, expressed in Rs. / kWh, in the Quarter in which the relevant Billing Cycle occurs;

VC_{Ref} = the reference value of Variable Component, as established in Part-4;

CPI_{Rev} = the revised CPI (General) in Pakistan for the month prior to the month in which indexation is applicable, as notified by the Pakistan Bureau of Statistics; and

CPI_{Ref} = the CPI (General) in Pakistan for the month of March 202*, as established in Part-4.

Water Use Charge

3.2 WUC_{REV} will be an amount in Rs/KWh as established by the relevant Government Agency. The reference value of Water Use Charge (WUC_{REF}) is Rs ***/kWh. As per decision of the ECC, water use charges will be reviewed every five (5) years to determine if an increase is required. Any subsequent change in rate of Water Use Charges as notified by the relevant Government Agency shall be applicable from the date of such decision.

Mechanism of Indexations

3.2 At the beginning of each Quarter following the Commencement Date, the Seller shall on the 2nd Business Day following the end of the Quarter, deliver to the Purchaser, the current Indices and values.

3.3 In case, the index used herein ceases to be available or withdrawn for any reason, the Parties shall request Coordination Committee to determine suitable alternative index for the purpose. In case of dispute, the Coordination Committee shall request NEPRA to determine an alternative index or shall use NEPRA determined index for similar circumstances for other hydro Projects. Such determination when made by NEPRA shall be binding on all the Parties. Pending the determination of alternative index by Coordination Committee or NEPRA, as the case may be, the last available value of the index shall be used for all purposes.

Part 4: REFERENCE TARIFF

$EP_{Ref} = FC + VC_{Ref} + WUC_{Ref}$

Where:

EP_{Ref} = Rs ****/kWh

FC = Rs ****/kWh

VC_{Ref} = Rs ****/kWh

WUC_{REF} = Rs ****/kWh

SCHEDULE 2

THE GENERATION FACILITY

A. Introduction

The JABORI Hydropower project is a tunnel-diversion type hydropower project and is constructed on JABORI, a right tributary of River siren in the District MANSEHRA, Khyber Pakhtunkhwa. JABORI Hydropower Project is run-of-the-river scheme for generation of hydropower through diversion of water through a waterway and penstock into a powerhouse having a total installed capacity of 10.2 MW. Main components of the project include; Weir, Intake Structure, Connection Tunnel, syphon, Gravel Trap, Sand Trap, Headrace Tunnel, Surge Chamber, Penstock Tunnel, Valve Chamber, Embedded Penstock, Powerhouse, Tailrace, Switchyard, 132 KV & 11 KV Transmission Lines, and Residential and other Buildings. The annual energy production is 71.1 GWh . Being a run-of-the-river scheme, the power generation varies in accordance with the availability of historic design discharge for generation. JABORI Hydropower Project was completed in 2025 and interconnected with National Grid through 132 kV Battal Grid Station.

B. Generation Capacity

JHPP installed capacity is 10.2 MW with 2 Horizontal shaft Francis turbines of 2x5.2 .

C. Electricity Generation Trend

The electricity generation trend is tabulated as under:

Month	Average Expected Load (MW)	Instantaneous Average Load (MW)
January	7.07	-
February	6.48	-
March	10.2	3.19
April	9.81	3.12
May	10.2	4.80
June	10.2	2.84
July	10.2	4.42

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August	10.08	5.09
September	8.40	5.48
October	5.34	4.0
November	4.19	-
December	3.39	-

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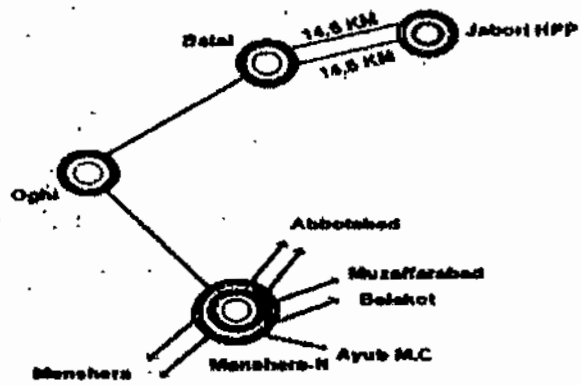
SCHEDULE 3

ENTRY POINT AND EXIT POINT

EXISTING ARRANGEMENT

Schematic Diagram of the Interconnection Arrangement/Transmission Facility for Dispersal of Power from the Generation Facility/Hydel Power Plant of the Licensee



Legend

220 kV
132 kV
11 kV
Proposed 132 kV
Proposed 11 kV

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
REGISTERED
NEPRA

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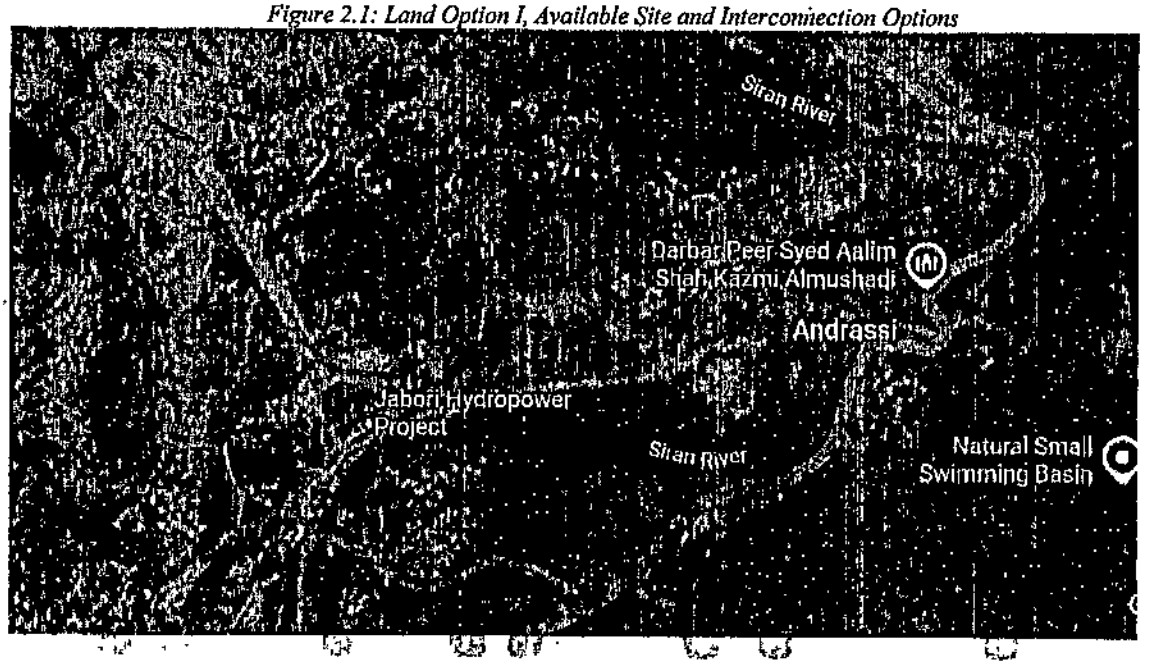
FUTURE DIRECT SUPPLY/WHEELING INTERCONNECTION ARRANGEMENTS

Land Option 1:

Approximately three (03) acres of relatively uneven land is available on access road of weir site of JABORI HPC, as shown in the figure 2.1.

Figure 2.1: Land Option I, Available Site and Interconnection Options



Land Option II:

Large, flat land parcels are available at the end of the PEDO-constructed 132kV transmission line connecting Battal Grid station. This site is approximately 14.6 kilometers from JABORI HPC

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SCHEDULE 4

FORM OF GUARANTEE

[On Stamp Paper]

[Issuing Bank, Guarantee Particulars]

Pakhtunkhwa Energy Development Organisation

PEDO House, Room No 123, Plot 38, Sector B/2

Phase-Hayatabad, Peshawar

Gentlemen,

At the request of PURCHASER NAME with its office at PURCHASER ADDRESS (the "Principal Debtor"), who has entered into an Energy Purchase Agreement dated _____with Pakhtunkhwa Energy Development Organisation with its offices at Plot no. 38, Sector B-2, Phase-5 Hayatabad, Peshawar, Pakistan (the "Creditor"), we [*name of bank*], (the "Surety") issue this irrevocable, unconditional and on-demand bank guarantee for the payment of the sum of the Rupees • (the "Guaranteed Sum"), without recourse to the Principal Debtor, on your first written demand made before expiry of this Guarantee on [•] (the "Term") and we further guarantee and covenant as follows:

1. Guarantee

In consideration of the Creditor entering into the Energy Purchase Agreement with the Principal Debtor, the Surety hereby irrevocably and unconditionally guarantees and promises to pay the Creditor the Guaranteed Sum or part thereof on the Creditor's first written demand in the form specified in clause •.

2. Form of Demand

Any demand for payment made pursuant to this Guarantee shall be made in person by a duly authorized officer of the Creditor at the Surety's offices at [identify location], and shall be accompanied by a certificate signed by a duly authorized officer of the Creditor, stating that:

> "We hereby certify that (A) Pakhtunkhwa Energy Development Organisation (the "Creditor") is making this demand on the [name of bank] (the "Surety") in the amount of Rupees [insert amount] under the Guarantee dated _____20__, by and between the Surety and the Creditor; (B) the amount specified hereinabove is due and payable by PURCHASER NAME ("the Principal Debtor") under the Energy Purchase Agreement between the Creditor and the Principal Debtor; and (C) such amount, on the date hereof, remains unpaid by the Principal Debtor."

3. Continuing Guarantee

This Guarantee shall be a continuing security during its Term. No demand made by the Creditor hereunder shall prejudice or restrict the right of the Creditor to make further or other demands up to the Guaranteed Sum.

4. Additional Security

4.1 This Guarantee shall be in addition to, and not in substitution for or derogation of, any other security

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that the Creditor may at any time hold in respect of the obligations of the Principal Debtor under the Energy Purchase Agreement.

4.2 The Creditor may enforce this Guarantee notwithstanding that it may hold any other guarantee, lien, or security of or for the obligations of the Principal Debtor under the Energy Purchase Agreement or have available to it any other remedy at law or equity.

4.3 The Creditor shall not be obliged before taking steps to enforce this Guarantee, to exercise any other remedies that may be available to it under or in respect of the Energy Purchase Agreement, or to initiate any proceedings or obtain judgment against the Principal Debtor thereon.

5. Late Payments

Late payments by us hereunder shall bear late payment charges at KIBOR plus three (3) percent per annum (on the basis of a three hundred and sixty five (365) day year), compounded semi-annually, calculated for the actual number of days for which the relevant amount remains unpaid. For the purposes hereof, KIBOR means the average "ask side" Karachi Inter-Bank Offer Rate for Rupee deposits for a period of three (3) months.

6. Waiver of Defences

The obligations of the Surety shall not be modified or impaired upon (and the Surety waives any defence to the performance of such obligations based upon) the happening from time to time of any event, including the following:

6.1 the extension of time for payment of any amounts due or of time for performance of any of the covenants, terms, or agreements of the Principal Debtor set forth in the Energy Purchase Agreement;

6.2 amendments to the Energy Purchase Agreement;

6.3 the failure, omission, or delay by the Creditor to enforce, ascertain, or exercise any right, power, or remedy under or pursuant to the terms of the Energy Purchase Agreement or this Guarantee;

6.4 the bankruptcy, insolvency, or other failure or financial disability of the Principal Debtor or the Creditor;

6.5 any failure of the Principal Debtor to comply with the requirements of any law, regulation or order; and

6.6 any invalidity or unenforceability of the Energy Purchase Agreement.

7. No Set-off

No set-off, counterclaim, reduction, or diminution of any obligation that the Surety has or may have against the Creditor, nor any right of subrogation that the Surety has or may have against the Creditor, shall be available to the Surety against the Creditor in connection with any obligation of the Surety to the Creditor under this Guarantee.

8. Duration

This Guarantee shall remain in full force and effect from and after the date during the Term, and for so long thereafter as any amount accrued during the Term and owed to the Creditor by the Surety or Principal Debtor is or may be outstanding.

9. No Waiver

No failure or delay by the Creditor to exercise any right or remedy under this Guarantee shall constitute a waiver of such right or remedy. No single or partial exercise of any right or remedy shall preclude any other or further exercise thereof, or the exercise of any other right or remedy. No waiver by the Creditor

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shall be effective unless it is in writing.

10. Remedies Cumulative

The rights and remedies of the Creditor provided by this Guarantee are cumulative and not exclusive of any rights or remedies provided by law.

11. Successors

This Guarantee shall be binding upon and inure to the benefit of the Surety and the Creditor and the respective successors and permitted assigns of each.

12. Representation and Warranty

The Surety represents and warrants for the benefit of the Creditor that (a) the Surety has the right to give this Guarantee and to perform its obligations hereunder, (b) this Guarantee is legal, valid, binding, and enforceable upon the Surety in accordance with its terms; and (c) all requisite corporate and other authorization to sign, deliver and perform this Guarantee have been duly obtained by the Surety and are in full force and effect.

IN WITNESS WHEREOF, this Guarantee has been executed on the Day first hereabove written.

For and on behalf of:

[the bank particulars]

By: _____

Title:

BANK STAMP

Witness: _____

Name: _____

CNIC: _____

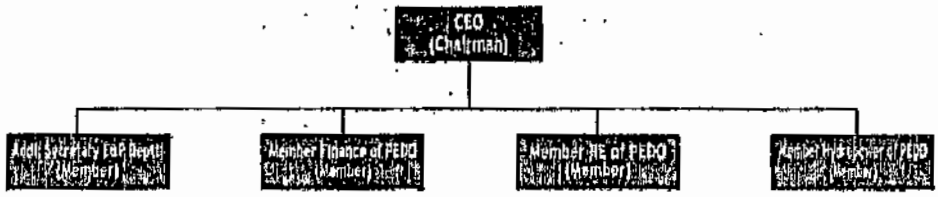
Witness: _____

Name: _____

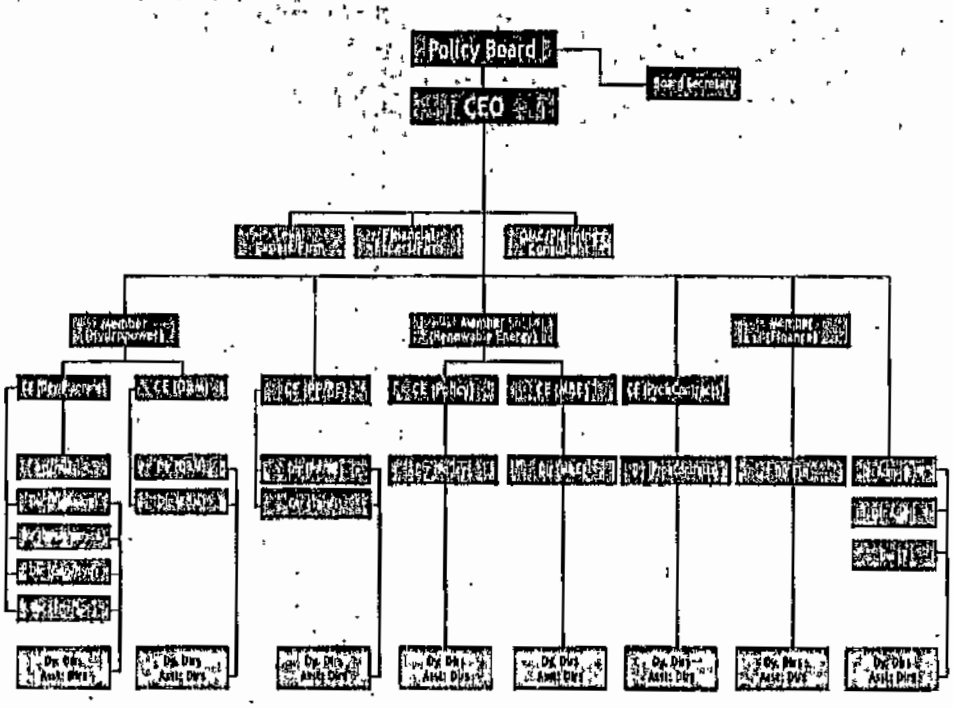
CNIC: _____

CTC

EXECUTIVE COMMITTEE



PEDO ORGANOGRAM



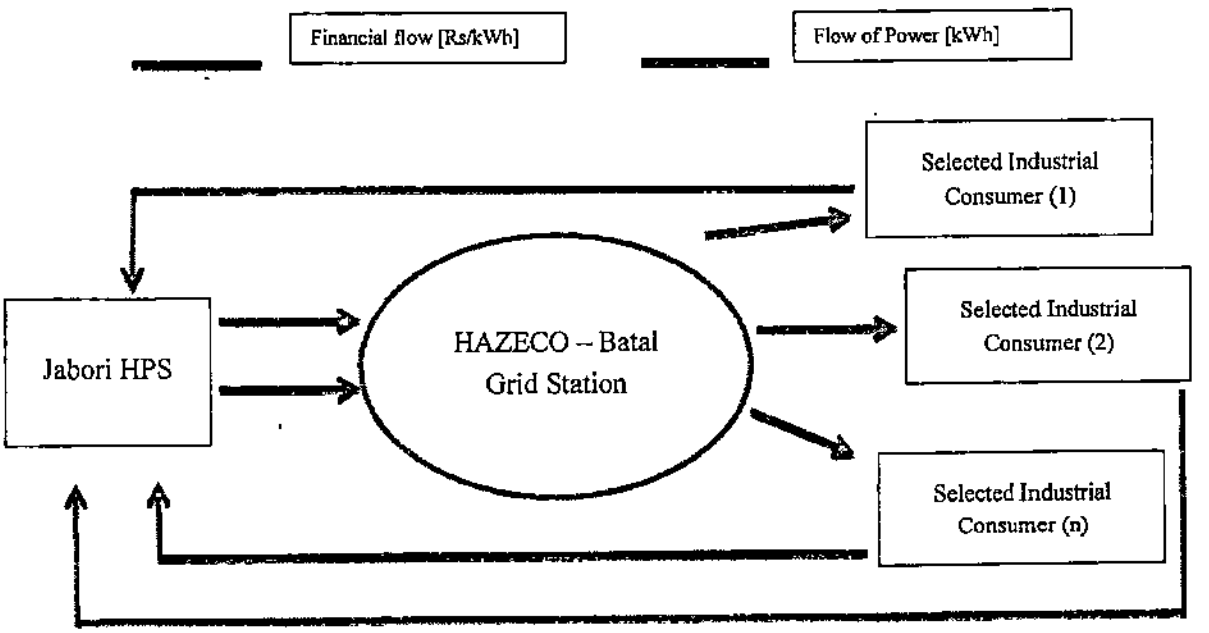
Billing and Collection Procedures of 10.2 MW Jabori Hydel Power Station Mansehra

As Jabori Hydropower Complex is already operational, connected with dedicated indigenous 132KV Transmission line supplying power to national grid located at Batal, both *direct supply arrangement* and *wheeling mechanism* can be established with proposed industrial consumers on the existing interconnection and infrastructure in place, with no technical changes required, as such.

Proposal-I:

Under the wheeling mechanism existing energy meter installed at Jabori HPS end can be utilized to record the supply of power into the Hazara Electric Supply Company(HAZECO) network. Similarly, there will be an exit meter installed at the consumer end (or selected industrial consumer or power purchaser). No change in the protection hardware may be required within the interconnection of system because the Project and selected industrial consumer is already connected with HAZECO, under the existing interconnection scheme.

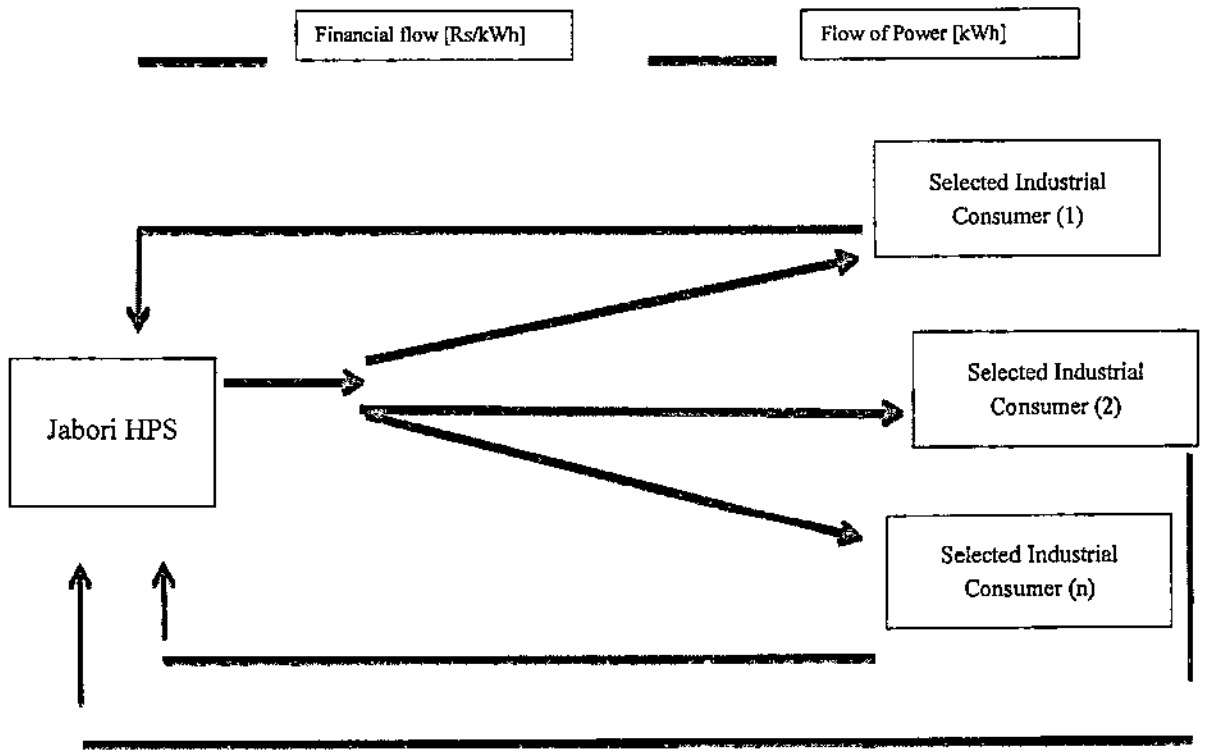
The overall wheeling arrangement is summarized in following diagram.



Proposal-II:

Under the *direct supply arrangement* entry meter will be installed at Jabori HPS for record of supply power to the industrial consumer or power purchaser connected via 11KV distribution network. For this purpose, one or more dedicated distribution lines of the lengths and power carrying capacities depends upon the location and load of the industrial consumer will be required. Similarly, there will be an exit meter installed at the consumer end (or selected industrial consumer or power purchaser). As per the load requirement of the industrial consumer a dedicated isolation transformer of the requisite capacity/rating will be installed in Jabori HPS. No change in the protection hardware may be required.

The overall *direct supply arrangement* is summarized in following diagram.



The Transmission & Distribution (T&D) losses incurred from the entry point tiii the exit point will have no impact on HAZECO under an Energy Wheeling Agreement (EWA) to be signed between HAZECO and Jabori HPS for supply of energy to the selected Consumer. These losses will be pre-agreed in the EWA to be deducted from the net power that HAZECO has to make available at the exit point to the power purchaser.

In case selected industrial consumer is unable to accept electricity at any time, or due to inability of HAZECO to deliver the power at the exit point (at any time), the concept of Banking may also be covered under EWA, to be negotiated with HAZECO. Under this concept, the HAZECO will be bound to supply such energy in future, which was evacuated from the Entry Point but not delivered at the Exit Point at that time, less agreed losses. The selected industrial consumers may retain their backup power options from captive means. However, if the demand at consumer end is more than the supply under EWA, the consumer can also purchase excessive power requirement from HAZECO at applicable tariff.

1. Joint meter reading mechanism will be adopted for taking monthly readings from the Exit meters. After verification and signatures, the HAZECO will process the Invoices/bills to the industrial consumer for payment.

2. Invoice for the excess energy (Energy that not utilized by any Industrial consumers) send to HAZECO for payment, in the *wheeling arrangement.*

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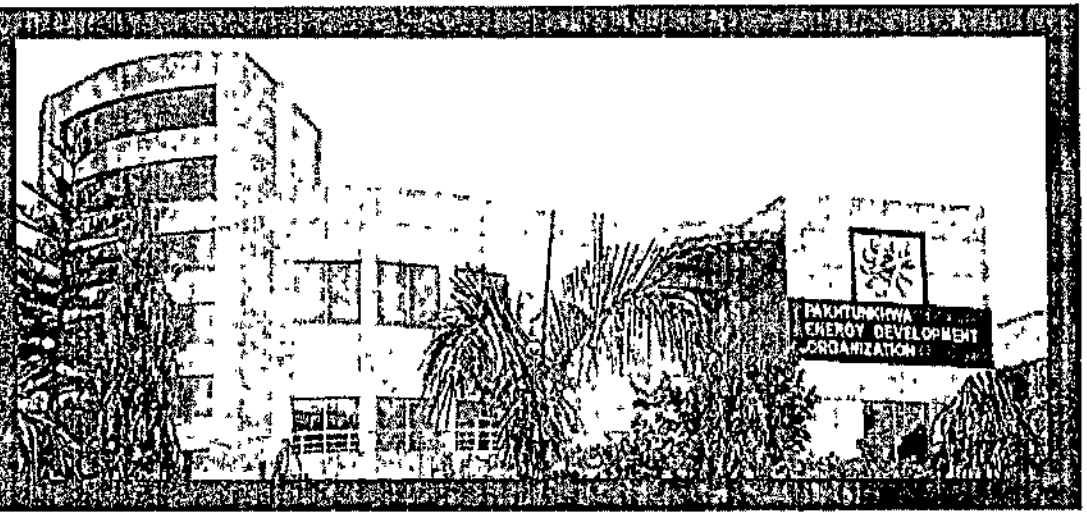
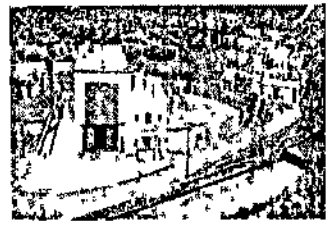
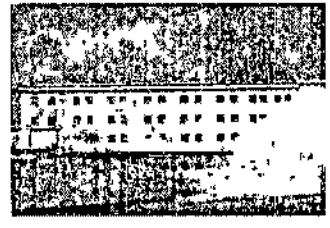
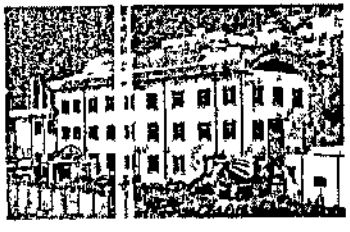
PEDO BUSINESS PLAN

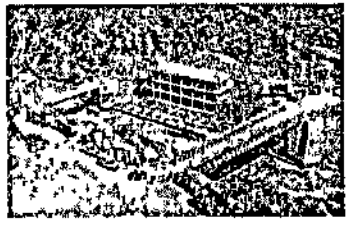
June 2025




Malakand-III 81 MW


Pehur 18 MW


Karora 11.8 MW

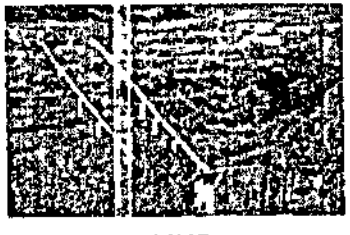

Balakot 300 MW


Daral Khwar 36.6 MW

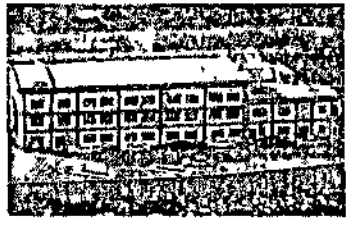

Ranolia 17 MW


Machai 2.6 MW

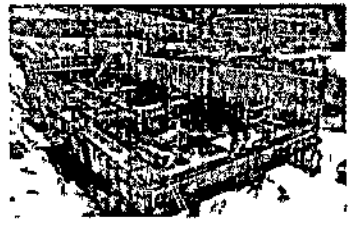

Shishi 1.875 MW

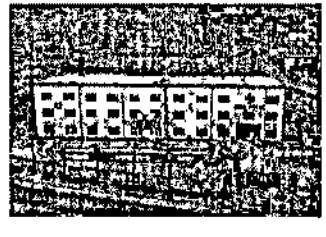

MMHPs


Solar Installations


Jabori 10.2 MW


Gorkin Matiltan 84 MW


Lawi 69 MW


Koto 40.8 MW

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DISCLAIMER

This PEDO's Business Plan (the "Business Plan") has been prepared by Accloudant Private Limited (referred as "Consultants"), under Sustainable Energy and Economic Development (SEED) funded by the UK's Foreign, Commonwealth & Development (FCDO). This business plan is prepared for Pakhtunkhwa Energy Development Organization "PEDO" and Government of Khyber Pakhtunkhwa "GoKPK" for documenting existing and future power sector plans in the province.

This Business Plan has been prepared to assist PEDO and GoKPK in making their own evaluation of the existing and future activities within KPK Power Sector and does not purport to contain all the information which PEDO and GoKPK may desire. In all readers and decision makers should conduct their own due diligence and analysis of the plans and schemes set forth in this Business Plan. The contents of this Business Plan are not to be construed as legal, financial or tax advice. The Consultants do n make any representation or warranty as to the accuracy or completeness of the information contained in this Business Plan and neither shall have any liability for any representations, expressed or implied, contained in, or omitted from, this Business Plar

It is clarified that Consultants did not audit, compile, or apply agreed-upon procedures to any financial information provided by PEDO for this Business Plan. The Consultants, and their partners, directors, principals, managers, employees or agents of an them (the "Parties") have not independently verified or validated the information and therefore do not make any undertaking, representation or provide any warranty, expressed or implied, as to the accuracy, reasonableness or completeness of the inform contained in this Business Plan.

This Business Plan is not, and under no circumstances is to be construed as, a prospectus, offering memorandum, a public offering of the PEDO, as defined under applicable securities legislation and does not constitute or form any part of any offer to se recommendation to subscribe for, underwrite or purchase securities, nor shall it, or any part of it, be relied upon in any way in connection with any contract for the acquisition of an equity interest in the PEDO or in any of its Projects. The information conta in this Business Plan may be subject to updating, expansion, revision and amendment. However, neither the PEDO nor the Consultants undertake any obligation to update, expand, revise or amend any information or to correct any inaccuracies contains this Business Plan or to provide the recipients with additional information.

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Acronyms

ADB	Asian Development Bank
ADP	Annual Development Programme
AEDB	Alternative Energy Development Board
AIP	Accelerated Implementation Program
AJ&K	Azad Jammu and Kashmir
AKRSP	Aga Khan Rural Support Programme
ARE	Alternate Renewable Energy
BHU	Basic Health Unit
BPC	Bulk Power Consumer
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CCI	Council of Common Interests
CM	Chief Minister
COD	Commercial Operations Date
CPEC	China-Pakistan Economic Corridor
CPI	Consumer Price Index
CPP	Captive Power Plants
CPPA	Central Power Purchasing Agency
CSR	Corporate Social Responsibility
CTBCM	Competitive Trading Bilateral Contract Market
DISCO	Distribution company
DLI	Disbursement Link Indicator
ED	Electricity Duty
EDF	Energy Development Fund
EHV	Extra High Voltage
EIA	Environmental Impact Assessment
EPA	Energy Purchase Agreement
ESCO	Energy Supply Companies
ESMAP	Energy Sector Management Assistance Programme
EWA	Energy Wheeling Agreement
FC	Fuel Charge
FESCO	Faisalabad Electric Supply Company
FY	Financial Year
GDP	Gross Domestic Product
GEPCO	Gujranwala Electric Power Company
GHI	Global Horizontal Irradiance
GoKPK	Government of Khyber Pakhtunkhwa
GoP	Government of Pakistan
GPP	Gross Provincial Product
GS	Grid Station
GST	General Sales Tax
GW	Gigawatt
HDF	Hydel Development Fund
HESCO	Hyderabad Electric Supply Company
HPP	Hydropower Project
HVAC	High Voltage Alternating Current

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Acronyms

IEE	Initial Environmental Examination
IESCO	Islamabad Electric Supply Company
IGCEP	Indicative Generation Capacity Expansion Plan
IMF	International Monetary Fund
IPP	Independent Power Producer
JDA	Joint Development Agreement
KE	K-Electric Limited
KHRE	Khyber Pakhtunkhwa Hydropower and Renewable Energy Development Program
KM	Kilometer
KHNP	Korea Hydro & Nuclear Power
KPK	Khyber Pakhtunkhwa
KPEPRA	Khyber Pakhtunkhwa Electricity & Power Regulatory Authority
KPEZDMC	Khyber Pakhtunkhwa Economic Zones Development & Management Company
KPTGCL	Khyber Pakhtunkhwa Transmission and Grid System Company Limited
kV	Kilovolt
LESCO	Lahore Electric Supply Company
LOI	Letter of Intent
LSMI	Large-scale Manufacturing Industries
MEPCO	Multan Electric Power Company
MHP	Micro Hydel Project
MMHP	Mini Micro Hydel Project
MOE	Ministry of Energy
MW	Megawatt
NEPRA	National Electric Power Regulatory Authority
NGC	National Grid Company
NJ	Neelum-Jhelum
NTDC	National Transmission & Dispatch Company
O&M	Operations & Maintenance
PAC	Power Acquisition Contract executed with relevant DISC
P&D	Planning & Development
PDWP	Provincial Development Working Party
PEDO	Pakhtunkhwa Energy Development Organization
PEPA	Pakistan Environmental Protection Agency
PESCO	Peshawar Electric Supply Company
PGC	Provincial Grid Company
PKR	Pakistan Rupees
PPP	Public Private Partnership
PV	Photovoltaic
QESCO	Quetta Electric Supply Company
RE	Renewable Energy
RFP	Request for Proposal
ROEDC	Return on Equity During Construction
SCOD	Scheduled Commercial Operations Date
SEPCO	Sukkur Electric Power Company
SEZ	Special Economic Zone
T&D	Transmission & Distribution
TESCO	Tribal Electric Supply Company
UOSC	Use of System Charge

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Executive Summary

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Executive Summary
Rationale for the Assignment

About the Assignment

The Pakhtunkhwa Energy Development Organization (PEDO), under the Government of Khyber Pakhtunkhwa (GoKPK), has been making strides to operationalize its hydroelectric power projects (HPPs) more efficiently, with the ultimate aim of **providing affordable and sustainable energy to the KPK industry and national grid.**

With above objective PEDO is implementing a generation portfolio of hydropower projects for delivering electricity under multiple modes. The sources of funding for development of these projects include (a) allocations under "Annual Development Plan (ADP), (b) Hydel Development Fund (HDF), and (c) foreign loans to GoKPK that are routed to PEDO projects, while other avenues like direct commercial/DFI loans to PEDO and capital market funding possibilities for PEDO to be identified.

This document attempts to set new vision for PEDO (refer Section-3) that is more aligned with GoKPK objectives and identifies underlying challenges and opportunities in achieving such vision along with viable strategies that PEDO may consider to overcome such challenges. This document is designed to set overall strategic direction, tactics and project-wise specific recommendations, compiled as **'business plan for FY 2026 to FY 20235'**. This document also identifies funding gaps as a result of implementing proposed strategy and specific steps required going forward.

Challenges faced by PEDO Generation Portfolio

KPK's hydropower generation potential is 24.5 GW, while 4.79 GW of identified & viable generation potential under GoKPK mandate is as follows (refer section-2):

- 1,870 MW of PEDO's portfolio projects (estimated generation potential 8,000 GWh), out of which 17 MW (generation estimate of 630 GWh) is operational at end of FY 2025, while 506 MW (generation 1,950 GWh) is under construction. Out of 1,870, the development phase projects stand at 1,11 MW.
- 1,245 MW of private sector advanced stage projects with completed feasibility studies (estimated generation potential 5,000 GWh)
- 1,675 MW of feasibility study completed projects in Chitral corridor (estimated generation potentia 7,000 GWh

Supply to grid has become competitive – (a) there is no scarcity of base load at grid, (b) price of hydr power might not be able to compete with solar and wind energy (c) Solar and other generation resource can be placed near base loads, while hydro power require expensive transmission networks.

Possibility of carving PESCO's residential customers is very low, even with acquisition of PESCO, the DISCO will remain tied with legacy contracts. On other hand the residential consumers within PESCO and TESCO have a high T&D loss and low recovery rates.

From PEDO's perspective the 1,110 MW development phase-projects (both PPP and own projects) face threat of non-procurement from national grid. Options for increase in supply, rests with (a) increasing KP industrial demand (b) finding new markets for supply. For this PEDO might require to focus on new solutions for supply to consumers within KPK and outside the province. To reduce cost of generation PEDO might also consider focusing on hybrid generation (Hydro-Solar Hybrid generation) or type o energy sold (selling hydrogen rather than electricity).

To supply electricity directly to consumers, the generation cost has to be substantially lower than nationa grid price (10.5 Cents/kWh in 2025 that is expected to decline to 9.5 Cents/kWh by 2035)

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Executive Summary

Changing Sector Realities & Steps for Realignment

Steps to Realize PEDO's New Outlook

KPK power sector has remained focused on (a) hydropower generation, and (b) sale of electricity to national grid. Both of these focused areas need to be realigned because of the changing realities, as discussed in Section-3 and summarized hereunder:

- National grid has surplus capacity and limited hydropower projects can be absorbed by national grid in future. Accordingly, it is recommended that new provincial electricity demand hubs need to be established, as existing KPK's demand will continue to be served by National Grid. For supply to existing domestic demand hubs the CTBCM can be explored, while for new demand hubs both CTBCM and direct lines can be established.
- Establishment of KPEPRA is crucial and is to be implemented at earliest, for realization of this 'business plan'. Going forward with establishment of KPEPRA, generation, transmission and distribution for electricity supply to new demand hubs within KPK will be possible, this will facilitate electrifying new demand hubs that may include industrial zones and new housing colonies.
- Micro Distribution/Grid Licenses from KPEPRA will need to be acquired for industrial hubs established / operated by KPEZDMC and Small Industries Development Board (SIDB), or by related housing colonies/societies.
- KPT&GSC will need to apply to NEPRA for broadening its scope of existing license (currently limited to SEZ and four hydropower corridors) and will also take license from KPEPRA for transmission lines within KPK (that does not involve interconnection with national grid).
- Generation cost of new power plants (funded from foreign or local commercial loans) is expected to be at par or less than national grid price, accordingly generation arrangements and funding need to be revisited.
- Keeping in view the surplus capacity at national grid and GoKPK's preference for promoting industry within the province, PEDO with new vision needs to reposition itself. It has now become crucial to coordinate with industry, SEZs (KPEZDMC), upcoming KPEPRA and distribution companies (provincial or ex-WAPDA) to align for each existing and upcoming project. This alignment has to be focused on (a) supporting industrial development within KPK, (b) while ensuring financial viability of each HPP.

- It is understood that existing viable (legally ar commercially) transmission lines, that were constructed b PEDO, will be transferred by PEDO to KPTGSC, which is th right step to separate the functions as per relevant mandat
- Similarly, KPTGSC is expected to provide technic solutions within its mandate for evacuation of the projects f transmission within KPK and for national grid. For thi separate licenses would be required from KPEPRA, beside its existing role as Provincial Grid Company that is focuse to facilitate transmission of electrons to national grid.
- It is important to highlight that new transmission line established by KPTGSC, might be used for dual purpose that is (a) supply to national grid, and (b) supply to electrici distributors that are licensed by KPEPRA.

However, it is important to highlight that expecte industrialization will be slow and to peruse the development projects, balance is to be retained between supply to nation grid, KPK industry's demand and possible supply opportunitie for other customers. Accordingly, GoKPK /PEDO should parallel continue to peruse inclusion of projects in IGCEP in th regard it was noted that latest iterations of IGCEP are develope in violation of assumptions approved by CCI in 2021/2022, th need to be resisted at all levels.

Project (HPP-wise) specific list of recommendations and step required is provided in Section-4

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Executive Summary

Customers, Modes of Supply & Acceptable Price Levels

Alternate Customers

Other than the National Grid, PEDO can supply electricity to the following alternate customers. Possibility of supply and related mode of supply, to said alternate customers, is discussed in Section-5:

- General Industry
- Export Industry
- IT Industry
- Industrial zones under KPEPRA
- Housing Societies (under KPEPRA)
- Supply to other countries
- External Utilities (K-Electric)
- Supply to Gilgit Baltistan

Based on analysis conducted in Section-5, recommended mode of supply for above discussed customers is outlined in the adjacent table, along with acceptable price range of related customers and size of generation capacity that can supply through identified mode in next 10 years.

Mode of Supply	Acceptable Range	Assumption
CTBCM	US Cents 7.4 – 9.4/kWh for general industry, export industry, IT industry and industrial zones.	Expected targeted size 400 MW (hydropower capacity). Price range represent all inclusive cost (i.e. capacity balancing and marginal pricing)
Direct Supply	US Cents 6.9 – 7.4/kWh for general industry, export industry, IT industry and industrial zones.	For supply to adjacent industry, Individual HPP size can be 10-15 MW, that can be made available to industries in sequence. For supply to industrial zones, supply can be in lots/multiples of 30-50 MW each with 2-3 years gap. Price range represent all available inclusive cost (i.e. cost of transmission line till gantory of consumer)
Direct Lines to Others Customers (Housing Societies, other countries)	US Cents 3 – 4/kWh from a sizeable generation resource for other countries. For Housing societies, aceeptable price is expected to be less than US Cents 5/kWh	For societies, size will depend on size of colony (rough estimate 40-50 MW in given time slot). Colonization of a hosung and full supply may take 8-10 years. For supply to other countries CASA-1000 may may be explored, a minimum size of 200 MW is expected for supply through CASA-1000. Price range for other countries represents delivery price at HPP gantory.
Direct Lines to K-Electrict	US Cents 8-10/kWh	Expected size 80MW to 450 MW. NTDC wheeling cost & energy losses will be added above supply cost. Price range represent, delivery price at HPPs gantory.
Direct Lines to Gilgit Baltistan	US Cents 5 /kWh	Expected size 40MW to 100 MW. Price range represent, acceptable supply cost at HPPs gantory.

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Executive Summary

CTBCM Viability

Viable Capacity for Supply under CTBCM Mode

CTBCM is an acronym for Competitive Trading Bilateral Contracts Market. CTBCM is a market reform model proposed for Pakistan's electricity sector, aiming to transition from the current single-buyer system to a more competitive wholesale market where electricity is traded through bilateral contracts. Currently, Pakistan's electricity market operates under a single buyer model, meaning a single entity (CPPA) purchases electricity on behalf of multiple distributors (DISCOs). CTBCM proposes to change this by allowing larger consumers (1MW or more- referred as "BPCs") to directly negotiate contracts with electricity generators.

In past, Wheeling/CTBCM has been pushed back by DISCOs on the premise that it will result in loss to National Grid, however based on recent discussions with various relevant stakeholders there seems to be a consensus on opening the wholesale electricity market by introducing a price discovery mechanism for establishing Stranded cost under UoSC (for CTBCM), which has been one of the main areas of controversy in past. For this 800 MW of firm capacity will be offered through issuance of 'framework guideline' under which 2-3 auctions will be held. Each auction will offer an allocation of 150 MW to 200 MW of firm capacity per year, for competition among interested parties. Each auction will allow right to bid for a slot for any of the next five years (2027 to 2031), unutilized capacity will be offered in next bidding round. The framework guideline will remain applicable for next five years, after which market is expected to fully opened with zero stranded cost.

For offering PEDO's portfolio under upcoming auctions an initial analysis has been done under this business plan, based on which it is estimated that about 48.27 MW of firm capacity (111 MW Gross Capacity) can be offered under CTBCM. Projects with price to CTBCM below 8.4 Cents/kWh were considered competitive and proposed to be taken forward for auction under CTBCM at this stage. However, 111 MW Gross Capacity may be reduced considering viability of direct supply model for certain projects, discussed in next slide.

Name	Gross Capacity MW	Firm Capacity MW	Price to CTBCM Cents/kWh	Proposed to be taken forward for auction under CTBCM	Firm Capacity that can be offered in CTBCM
Pehur HPP	18	6.08	7.5	Yes	6.08
Daral Khwar HPP	37	17.45	10.1	No	-
Ranolia HPP	17	10.53	12.3	No	-
Machai HPP	3	0.81	13.9	No	-
Shishi HPS	2	0.81	4.6	Yes	0.81
Jabori HPP	10	6.46	7.9	Yes	6.46
Gorkin-Matiltan HPP	84	31.68	10.5	No	-
Lawi HPP	69	28.43	8.3	Yes	28.43
Koto HPP	41	18.96	10.2	No	-
Karora HPP	12	6.49	7.8	Yes	6.49
Gabral Kalam HPP	95	33.42	14.1	No	-
Total	388	161.12			48.27

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Executive Summary

Direct Supply Model (DSM) Viability

Viable Capacity for Supply under DSM Mode

The Direct Supply arrangements envisage the supply/sale of electricity by the Projects to the industrial consumers at close proximity of each Project, that is without involving national grid/network. Therefore, to have the Direct Supply arrangement, the electricity should be received by the industrial consumer directly from the outgoing bus bar of the Project without using national grid or its associated facilities.

Three options to supply through Direct Supply Model are:

- Adjacent to HPP
- Along HPP's transmission line
- Existing/new industrial zones near HPP clusters

It is understood that cost of Direct Supply Model is less than cost of CTBCM supply, however from a strategic point of view supply under CTBCM should still be perused by PEDO because (a) it has a much larger reach compared to Direct Supply Model, (b) price dynamics assumed in this plan can change (c) relocating existing industry to KPK will be less attractive for alternate consumers.

However, to catalyze development of domestic industry, it is recommended that in next few years **Jabori** and **Karora** may be offered under direct supply model by inviting alternate customers (discussed above) to establish their manufacturing units or other processing units (IT/data center etc.) adjacent to said power plants. For this, selection process of credible parties may be initiated, followed by execution of agreements and construction of units by related parties. The interconnection cost may be borne by related party while related O&M can be performed by KPT&GSC under license from KPEPRA.

For supply to industrial zones, it is recommended that negotiations may be started with related stakeholders (KPEZDMC and Rashakai Special Economic Zone Development & Operation Company (RSEZDOC)) for following projects:

- **Shishi HPP** for supply to Chitral Economic Zone, followed by **Lawi HPP** once colonization takes pace. If KPEZDMC is of the view that Chitral Economic Zone will not take pace in couple of years, there are two options for Lawi HPP (a) separate line will be required to interconnect with Chakdara to further interconnect with other industrial zones (b) Supply under CTBCM to general industry within KPK. For this business plan it is assumed to supply under CTBCM will be implemented for Lawi HPP.
- **Gokin Matiltan** and **Gabral Kalam** can be interconnected with Rashakai SEZ, Buner SEZ and other upcoming industrial zones. The tariff of Gabral Kalam is higher than expected acceptable price range of SEZs. In case RSEZDOC does not agree to the acquire electricity from Gabral Kalam, it can be either (a) continued with National Grid or (b) Discussion may be held with K-Electric for supply of electricity from project, along with Madyan if considered appropriate. For this business plan it is assumed that **Madyan may continue with National Grid.**
- For **Koto HPP**, either (a) new industrial zone is considered (or project of Koto Industrial Zone may be reconsidered) within the vicinity, till colonization of said industrial zone Koto HPP may continue with national grid till its colonization, or (b) Discussion may be held with K-Electric for supply of electricity from project.
- The energy supply variations and supply gaps from HPP, will be subject to SEZ's / Zone's own arrangements for which backup to be arranged via (a) national grid connection or (b) thermal power at site.

It is important to highlight, that for supply to industrial zones, KPEPRA has to be functional that issues respective licenses and tariffs for the electricity supply chain of industrial zone. Note that Shishi, Jabori, and Karora have been recommended for Direct Supply Model although they were viable for CTBCM, as cost of Direct Supply Model is less than cost of CTBCM supply and there are opportunities in their respective vicinities.

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Executive Summary

Proposed Way Forward for Each Project

The following table summarizes recommendations for various supply modes and steps required along with relevant dates for each project.

Project Name	Size (MW)	Forecasted Energy (GWh)	Proposed way forward	COD Targets	Tariff True-up/ Indexation Targets	Assumed under CTBCM	Firm Capacity for Bid under CTBCM	Assumed under Direct Supply Model (adjacent industry)	Assumed for supply to SEZs/ Zones
Malakand-III HPP	81	384	Either new indsutrial zone or housing	Achieved	Achieved				Q1 FY 2035
Pehur HPP	18	53	Convert wheeling to CTBCM	Achieved	2026	Q1 FY 2027	6.08		
Daral Khwar HPP	37	153	To be evaluated for Direct Supply Model or Supply to Zone	Achieved	2026			Q3 FY 2029	
Ranolia HPP	17	92	High tariff- continue with National Grid	2027	2029				
Reshun HPS	5	15	Social uplift- off-grid sale	Achieved	NA				
Machai HPP	3	7	High tariff- continue with National Grid	Achieved	2026				
Shishi HPS	2	7	Supply to Chitral Economic Zone	Achieved	Not Requlred				Q1 FY 2028
Jabori HPP	10	60	Adjacent Industry by 2028. Bidding process complete at earliest.	Achieved	2026			Q3 FY 2028	
Balakot HPP	300	914	High tariff- continue with National Grid, or may be offered to K-Electric	2029	2031				
Gorkin-Matiltan HPP	84	212	Supply to Rashakai SEZ- RSEZDOC	2026	2027				Q3 FY 2029
Lawi HPP	69	249	If KPEZDM agrees then to Chitral Economic Zone, otherwise Bid under CTBCM framework	2026	2028	Q1 FY 2029	28.43		
Koto HPP	41	166	Explore possibility of Economic zone (Koto economic zone) adjacent to HPP (continue will national grid till that time)	2025	2027				Q1 FY 2030
Karora HPP	12	57	Adjacent Industry by 2028. Bidding process complete at earliest.	2026	2028			Q1 FY 2029	
Gabral Kalam HPP	95	293	Offer RSEZDOC and K-Electric, or continue with national grid	2030	2032				
Madyan HPP	215	671	High tariff- continue with national Grid or discuss with K-Electric	2030	2032				
Chapri Charkhel	14	65	Final EPC cost and update project tariff. Assumed grid supply.	2030	2032				
Mujaheden HPP	7	33	If approved then will taken as social uplift- off-grid sale	2030	2032				
Sub Total	**1,008**	**3,431**					**34.51**		
Lower Spat Gah (26%)	470	1,925	Discuss possibility of lowering project cost and funding costs with KHNP. Not assumed in business plan at the moment.	2032	2034				
Grand Total	**1,478**	**5,356**					**34.51**		

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Executive Summary

Funding Requirements

At PEDO Level

From PEDO's perspective all funding requirements are met by GoKPK (directly or through Hydel Development Fund-HDF), with one exception that is of "Khyber Pakhtunkhwa Hydropower and Renewable Energy Development Program (KHRE program)" under which underlying obligations are allocated to PEDO by GoKPK.

KHRE program is designed to fund two major upcoming projects i.e. Gabral Kalam and Madyan. Under the said program, besides funding from IDA and IBRD (routed through EAD- federal government), additional funding sources to be explored and utilized that (a) GoKP/PEDO equity funding (b) domestic commercial loan and (c) foreign commercial loans. Accordingly, at PEDO level there is a requirement to raise following foreign and domestic commercial loans:

- Gabral Kalam (a) foreign commercial Loan US$ 29.53 M and (b) local commercial loan of PKR 8.2 Billion.
- Madyan are (a) foreign commercial Loan US$ 84.4 M and (b) local commercial loan of PKR 23.5 Billion.

Further it is understood that above two projects are facing resistance from National Grid. Accordingly, debt process may be initiated once there is more clarity from national grid in this regard. Based on assessment of two projects it is expected that resultant tariff of Madyan might be higher than Gabral Kalam, because of which it might face more resistance and delays for extended time.

Lastly, the debt repayments of KHRE's foreign loans (IDA & AIIB) are scheduled to start in FY 2025-2028. It is proposed that the KHRE loan agreement is renegotiated to ensure that (a) repayments start post COD of said projects that is now envisaged in 2030 and (b) excess funds. if any, are utilized to fund shortfalls of other projects emanating at GoKPK level.

At GoKPK Level

Net funding requirement at GoKPK level is analyzed under two scenarios that are:

a) **"AS IS"** All projects are perused and constructed as planned (excluding lower spa gah which has not been assumed as discussed in last section)

b) **"Eliminated Projects"** All assumptions are same as per "Scenario-a" above excep that it further excludes (i) Madyan (ii) Chapri Charkhel and (iii) Mujaheden, as status c these three projects is not clear at the moment.

Under both of above scenarios funding gap is expected to arise only in 2026 which ca be divided in two parts (I) loss emanating from PEDO funding needs, and (II) estimate repayments/ debt servicing of existing loan portfolio parked at GoKPK (current adjusted under NFC), as tabulated hereunder:

Funding Shortfall at GoKPK level in FY 2026

Scenario	Scenario-a "AS-IS"	Scenario-b "Eliminated Projects"
If debt servicing of loans parked at GoKPK is recovered from PEDO		
PEDO related funding shortfall	PKR 11.40 B	PKR 4.02 B
Servicing of existing debts raised for PEDO	PKR 11.12 B	PKR 10.86 B
Funding Gap in FY 2026	**PKR 22.53 B**	**PKR 14.88 B**
If debt servicing of loans parked at GoKPK is continued by GoKPK own resources		
Funding Gap in FY 2026	**PKR 11.40 B**	**PKR 4.02 B**

Please note that above funding shortfall assessment is subject to (a) actual change in economic variables is in line with th document, (b) achievement of targets as set on last page and (c) project cost incurrence as per Section-4.

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Section 01: Background & Scope of Business Plan

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Background

About SEED Program and this assignment

About SEED Program

Sustainable Energy and Economic Development (SEED) is a six-year programme, funded by the UK's Foreign, Commonwealth & Development Office (FCDO), with the objective of engaging counterparts within Government of Khyber Pakhtunkhwa (GoKPK) and undertaking detailed scoping studies and assessments and providing relevant and real-time technical assistance to the GoKPK. It aims at improving economic and urban planning in KPK, while also addressing Pakistan's energy crisis by providing innovative financial solutions for the adoption of sustainable energy practices.

Within SEED, Adam Smith International (ASI) has been contracted to deliver the first component, 'Improved Economic and Urban Planning in Khyber Pakhtunkhwa', to help the province plan and finance the investments and infrastructure it needs for growth, job creation and prosperity. The programme's longer-term outcomes include generating higher levels of public and private investments, enhancing public investment management efficiencies and ensuring that investments made produce greater economic, social, and environmental returns.

About this Assignment

The Pakhtunkhwa Energy Development Organization (PEDO), under the Government of Khyber Pakhtunkhwa (GoKPK), has been making strides to operationalize its hydroelectric power projects (HPPs) more efficiently, with the ultimate aim of providing affordable and sustainable energy to the KP industry and national grid.

With above objective PEDO is implementing a generation portfolio of hydropower and solar projects, for delivering electricity under multiple modes. The sources of funding for development of these projects include (a) allocations under "Annual Development Plan (ADP), (b) Hydel Development Fund (HDF), and (c) foreign loans to GoKPK that are injected in respective PEDO projects, while other avenues like direct commercial/DFI loans to PEDO and capital market funding possibilities for PEDO to be identified.

However, all these endeavors, resource requirements and funding plans for each project are to be captured in the shape of a comprehensive business plan to understand overall size of funding gap and the timing of the gap in the next 5-10 years to strategize the fund availability for continued construction of projects.

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Background

Scope and Basis of PEDO's Business Plan

Principle	Description
Lean and dynamic scalable plan	This business plan is developed based on a Financial Model to keep it a dynamic document which is capable of being continuously updated and aligned with changing realities and status of project portfolio to forecast funding requirements and shortfalls for appropriate and timely decision making. For this reason, a fully integrated and option-sensitive financial model has been developed that (a) captures status and funding requirements of each project and (b), is capable of calculating tariffs/revenue & forecasting cost streams, and (c) can project funding gaps after adjusting for available funding sources (surplus revenues GoKPK funding (ADP), inflows from HDF, equity funding, DFI funding and commercial loans), if any. The results of this financial model provide visibility on each project based on applicable economic conditions, that could help in revising funding plans, every year. The envisaged strategic options are already built-in the financial model and can be revised every year.
Interactive process of development	Development of a dynamic financial model was to be based on an interactive process to ensure following: a) Base data availability: Outputs of a financial model are based on accuracy and level of details plugged-in the financial model. Limited data will result in use of more hypothetical assumptions, accordingly during the development process PEDO team has provided project-wise requisite information that is the basic foundation of this model, however the same can be revised as per the requirement of PEDO. b) Functionality and Output: During interactive sessions, the PEDO management guided their requirements on the expected outputs of the financial model. The existing Financial Model is capable of projecting (a) financial statements for the next five-ten years and (b) funding gaps (if any) of PEDO based on the given data, projected tariffs, mode of supply and assumptions. To fill in funding gaps, the Financial Model has certain built-in options to see the impact on projected financial statements, while new options can also be built-in over time as may be required.

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Scope of Business Plan

Finar cial Model Structure

Main inputs to this Module were taken from related projects, for which a questionnaire was designed and filled forms obtained, which formed the basis of project.

Project Input Module

Define projects and their expected timelines, including CAPEX , OPEX, and energy numbers over the life of each project.

Regulated Tarrif Module

Based on NEPRA tariff methodology and data from the input module, the module projects benchmark, COD, and indexed tariffs, using projected economic indicators. For upcoming projects, project data has been used to set the benchmark tariff.

Existing tariff determinations from NEPRA were reviewed and details were incorporated in the tariff module.

For marginal prices, publicly available data from CPPA is used, along with data on Fuel Price Adjustments from NEPRA.

Bilateral Module

This covers both CTBCM and Direct Supply model. CTBCM analysis also covers balancing of both energy and capacity. The base and projected sale price to the industry is based on indexed regulated tariffs and projected economic indicators.

Financial Module

The project's financial statements and Funding gaps identified can be analyzed under different scenarios and in various economic conditions. For the calculation of Interest During Construction (IDC), a separate module has been used.

Existing audited financial statements (as available 2021) and management accounts (up to 2024) have been used for the financial module.

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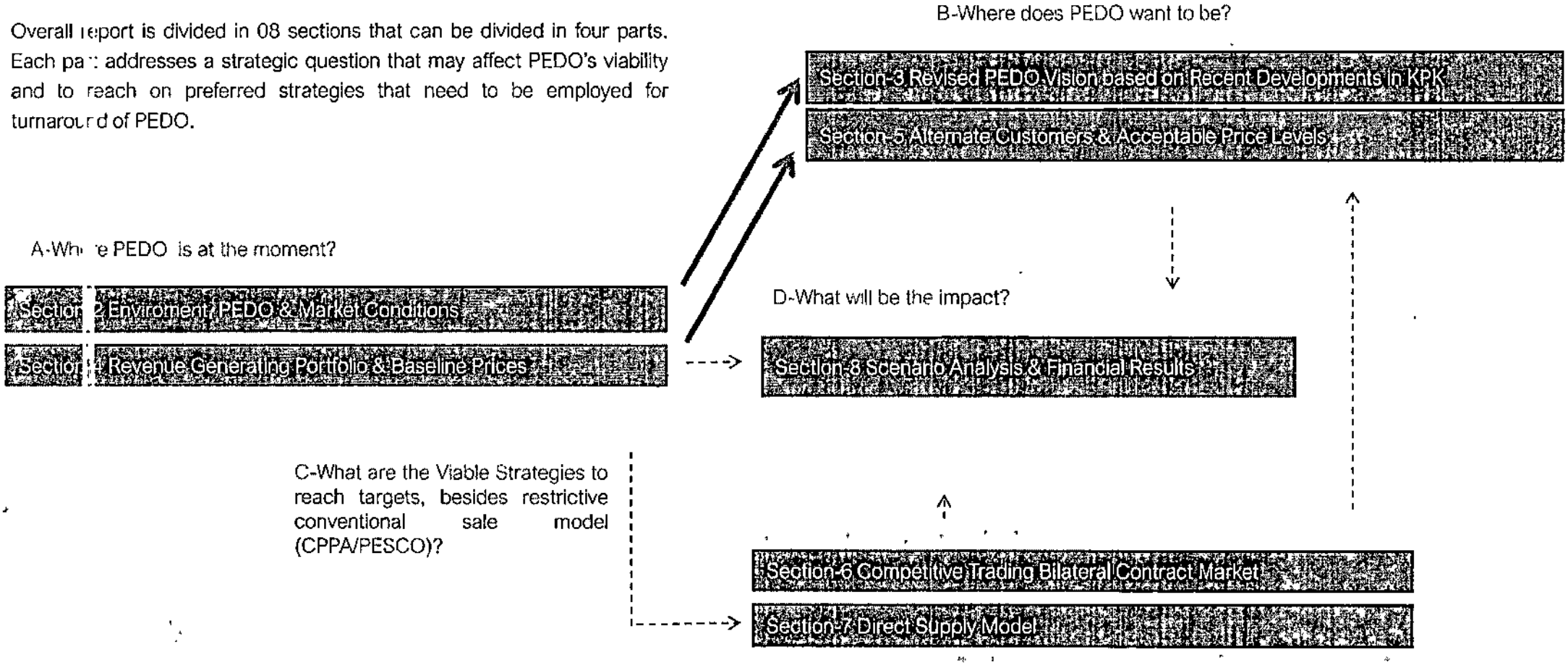
Structure of this Report

Overall report is divided in 08 sections that can be divided in four parts. Each part addresses a strategic question that may affect PEDO's viability and to reach on preferred strategies that need to be employed for turnaround of PEDO.



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Section 02: Environment, PEDO & Market Conditions

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Economic Environment- Pakistan

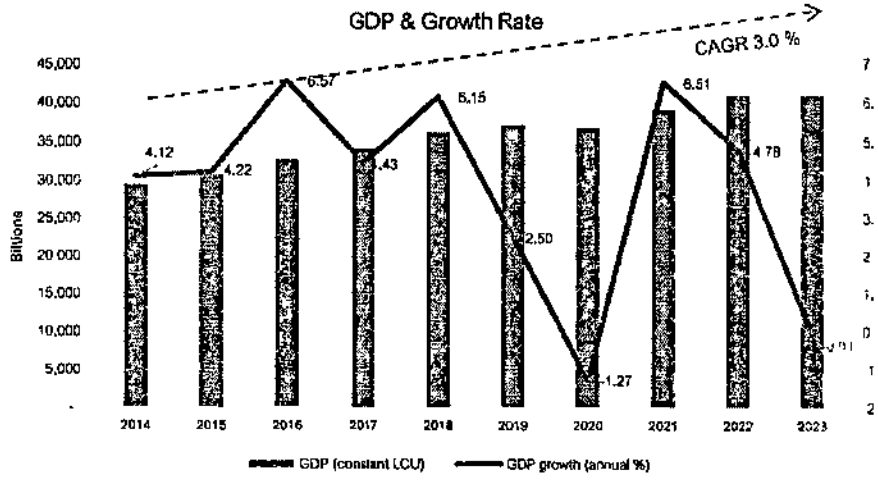
Stabilization & growth

Over the last decade, Pakistan's GDP growth rate has fluctuated, averaging around 3% CAGR. The country experienced its highest growth rates in 2016 (6.57%) and 2018 (6.15%), largely driven by an overvalued pegged exchange rate and an expansionary monetary policy that stimulated short-term domestic demand but weakened macroeconomic fundamentals.

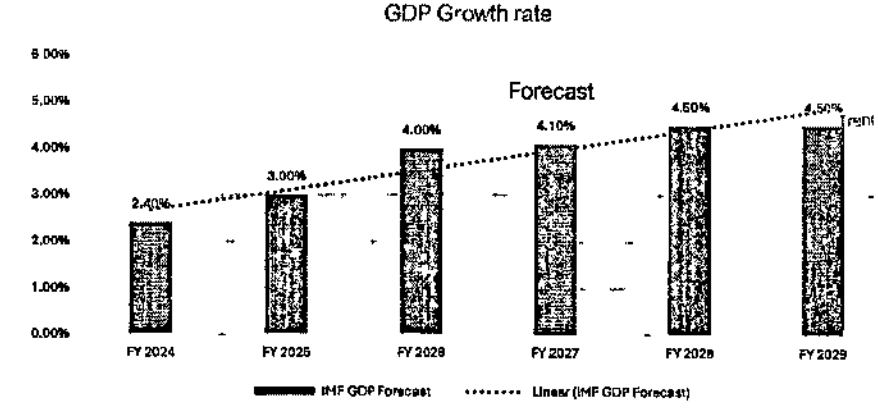
By 2019, economic stabilization efforts led to improvements in the exchange rate, international credit outlook, and business environment, contributing to a GDP growth of 2.5%. However, this transition was abruptly disrupted by the COVID-19 pandemic, resulting in a contraction of -1.27% in 2020 as the economy went into partial lockdown.

Pakistan rebounded strongly in 2021, achieving a 6.51% growth rate, supported by post-pandemic recovery measures. However, growth slowed to 4.78% in 2022 before stagnating in 2023 at -0.04%.

Despite recent volatility, IMF projections indicate a recovery, with GDP growth expected to reach 3% by FY2025. Post-2025, growth is anticipated to rise further, ranging between 4.1% and 4.8%, potentially surpassing the current CAGR of 3%.



Source 2014-2023 Data-World Development Indicators



Source IMF Forecasted Trend- Mar 2025

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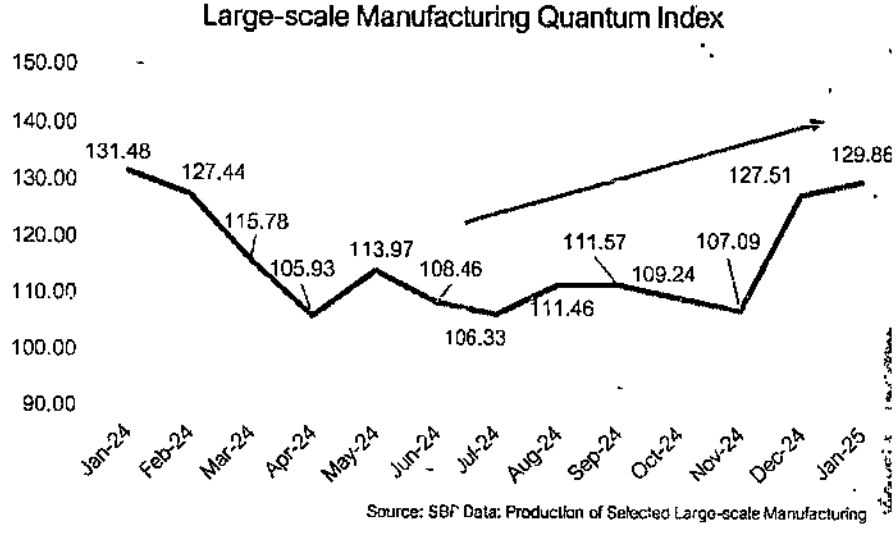
Economic Environment- Pakistan

Large-scale manufacturing industry

In light of recent economic developments, Pakistan's Large-Scale Manufacturing Industries (LSMI) sector has exhibited notable fluctuations, reflecting both external and internal economic conditions. The Large-Scale Manufacturing Quantum Index (LSMQI) stood at 131.48 in January 2024 but declined to 127.44 by February 2024, continuing its downward trajectory to 105.93 in April 2024 due to inflationary pressures, high input costs, and global economic uncertainties. However, a gradual recovery began in May 2024, with the index rebounding to 113.97, supported by improved market demand and stabilizing policies.

Despite fluctuations, LSMQI maintained an upward trajectory in the latter half of the year, reaching 129.86 in January 2025. This recovery highlights the manufacturing sector's resilience, driven by the SBP's financing options, increased industrial activity, and improvements in cement dispatches, energy supply, and policy interventions. GDP growth projections for FY 2025 are expected to improve, with SBP's continued focus on exports.

With easing inflation, a stable outlook for manufacturing and export-led growth, alongside infrastructure investments, is likely to sustain momentum; however, long-term stability will require consistent policy and investment support.



Source: SBP Data: Production of Selected Large-scale Manufacturing

Projected GDP Growth Rate Scenarios of Pakistan

	FY 2025	FY 2026	FY 2029	CAGR
Conservative	3.00%	3.5%	4.0%	3.5%
Base Case	3.00%	4.0%	4.5%	3.83%
Targeted	3.00%	5.0%	6.5%	4.83%

*IMF's most recent projection (as of January 2025) for Pakistan's GDP growth in FY 2025 is 3.0%.
*base Case GDP growth rate for 2029 is based on https://www.imf.org/en/Countries/PAK

Source: The State of Pakistan's Economy, Annual Report 2023-24, State Bank of Pakistan.
Source: Global Cement News. Available at https://www.globalcement.com/news/item/11702-pakistani-five-month-cement-dispatches-rise
Source: https://www.imf.org/en/Countries/PAK

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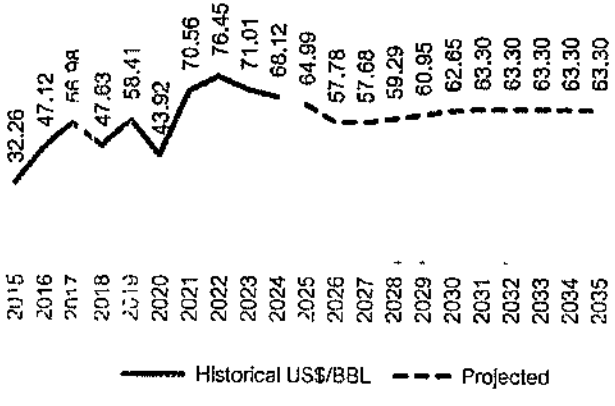
Economic Environment- Pakistan

Global Economic Variables Impacting Pakistan

Crude Oil (US$/BBL)

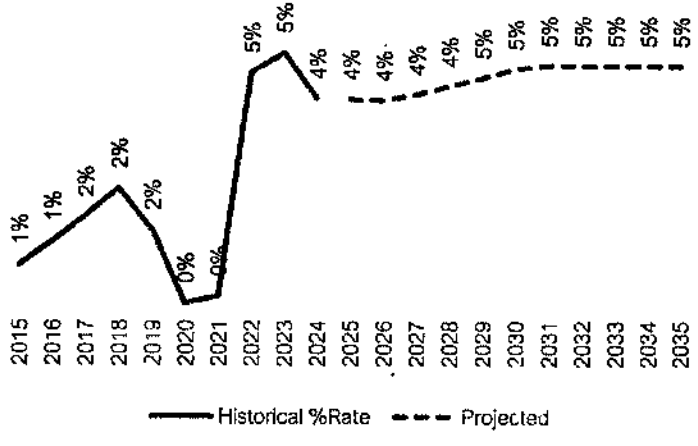
The projected crude oil assumes a short-term annual growth rate of -12.5% for the first two years (2025–2026), followed by a long-term annual growth rate of 2.8% till 2030. After 2030, the crude oil has been kept at US$/BBL 63.30.



Recent data indicate a persistent oversupply in global crude oil markets, driven by rising output from non-OPEC+ producers such as Brazil, Canada, and the UK. Meanwhile, demand growth has slowed amid global economic uncertainty. As a net oil importer, Pakistan benefits from lower prices, which ease its import bill, reduce inflation (especially in energy and transport), and support stable or reduced energy tariffs.

SOFR (% Rate)

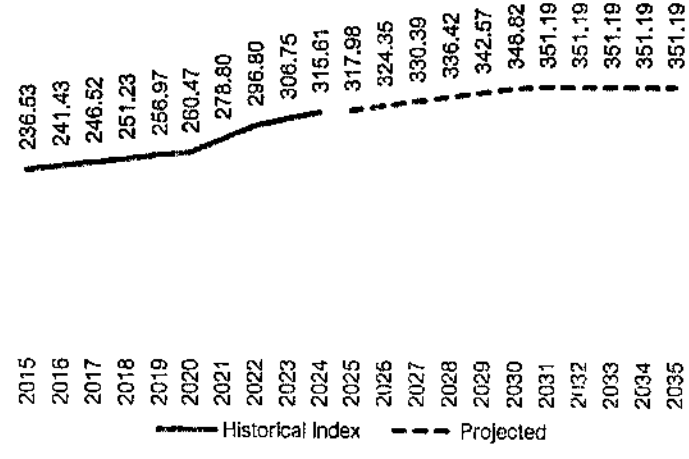
The projected SOFR assumes a short-term annual growth rate of -1.0% for the first two years (2025–2026), followed by a long-term annual growth rate of 3.8% till 2030. After 2030, the SOFR has been kept at 5.0%.



The 90-day average SOFR has stabilized around 4.35% as of June 2025, signaling a pause in U.S. monetary tightening.[2] For economies like Pakistan, this reduces uncertainty in external borrowing costs and supports more predictable assumptions in tariff modeling.

US CPI Index

The projected US CPI index assumes a short-term grov rate of 2.0 % for the first two years (2025–2026), follow by a long-term annual growth rate of 1.8% till 2030. Af 2030, the US CPI has been kept at 351.19



After peaking in mid-2022 due to post-COVID stimulus and supply shocks, US inflation has declined steadily through 2023–24.Cooling inflation eases global price pressures, supporting assumptions of stable imported inflation and controlled O&M costs in Pakistan.

Sources
1. Vortexa
2. Newyorkfed

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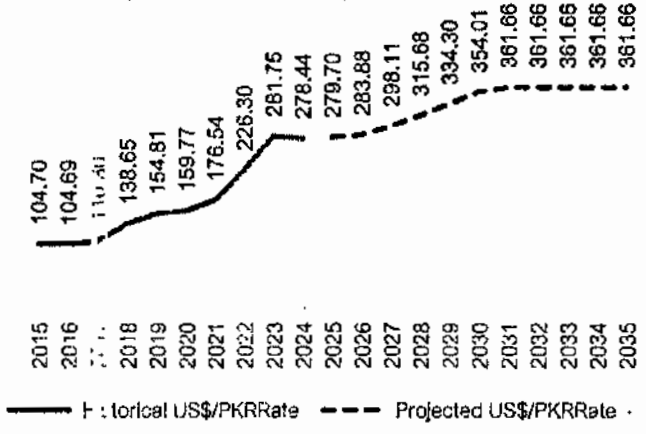
Economic Environment- Pakistan

Forecasted macro-economic Indicators

Exchange Rate (US$/PKR Rate)

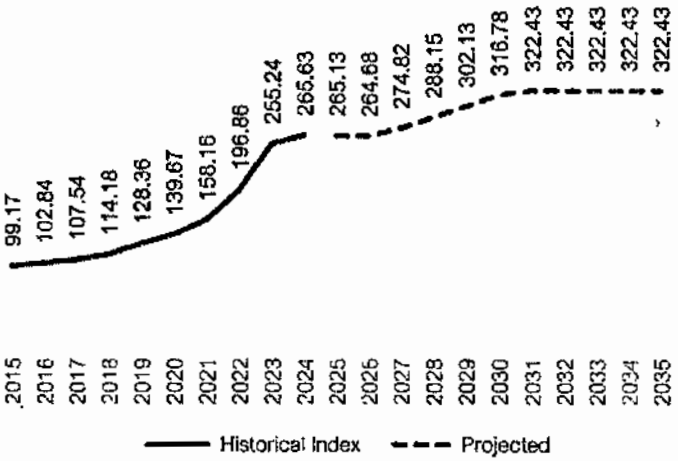
The projected exchange rate assumes a short-term annual growth rate of 1.20% for the first two years (2025–2026), followed by a long-term annual growth rate of 5.8% till 2030. After 2030, the exchange rate has been kept at PKR 361.66 per USD.



The pace of PKR depreciation is projected to moderate as external account pressures ease. Lower oil import costs and potential improvement in exports and remittances could help stabilize the current account, reducing FX volatility and supporting a gradual, predictable currency path.

Pak CPI Index

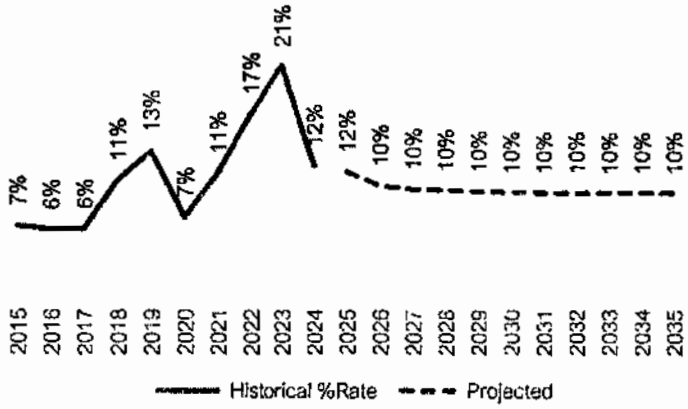
The projected Pak CPI index assumes a short-term growth rate of -0.5% for the first two years (2025–2026), followed by a long-term annual growth rate of 4.8% till 2030. After 2030, the Pak CPI has been kept at 322.43



Domestic inflation is projected to decline in the near term, supported by cooling global inflation, reduced fuel prices, and tight monetary policy. This helps contain O&M cost escalations, anchoring future tariff adjustments. A stable CPI path reflects an improving supply-demand balance and fiscal discipline.

KIBOR (% Rate)

The projected KIBOR assumes a short-term annua growth rate of -12.5% for the first two years (2025-2026), followed by a long-term annual growth rate of 1.1% till 2030. After 2030, the KIBOR has been kept a 10%.



KIBOR is projected to decline in the short term, reflecting expectations of easing inflationary pressures and improved macroeconomic stability. A lower interest rate environment reduces borrowing costs, supports domestic investment, and enhances the viability of infrastructure projects. Over the medium term, stable interest rates support predictable cost assumptions in tariff modeling and reduce uncertainty in capital cost projections.

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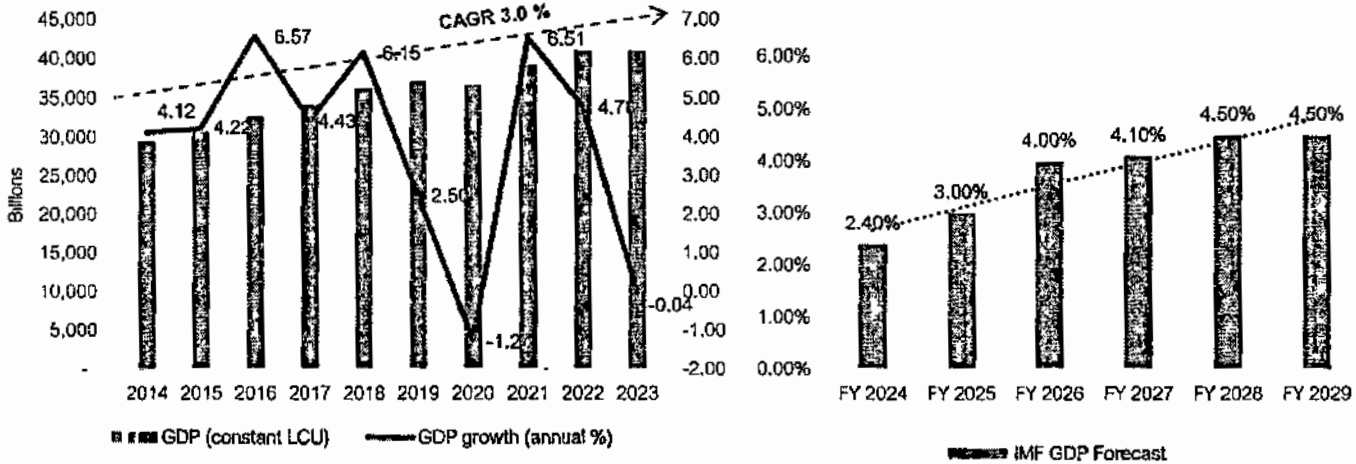
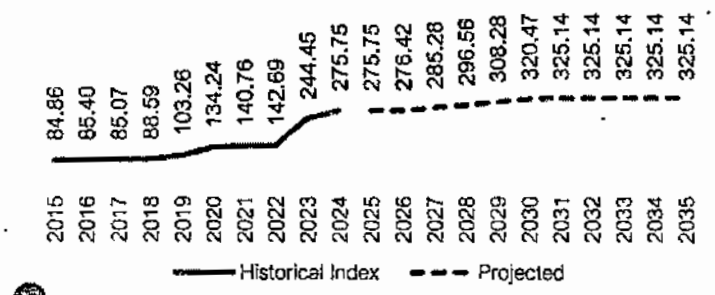
Economic Environment- Pakistan

Forecasted GDP Growth and sectoral indexes

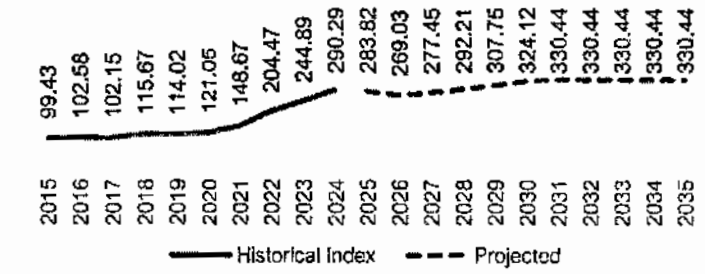
GDP Growth Rates



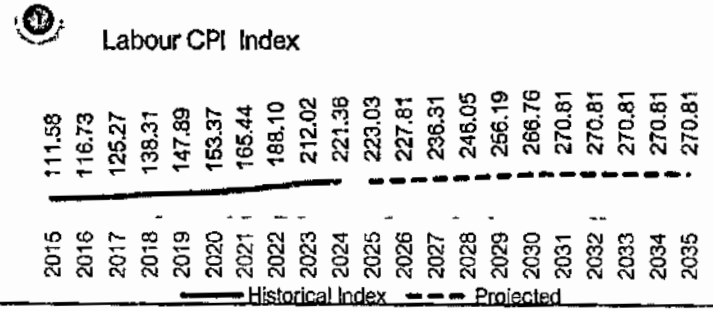
Steel CPI Index

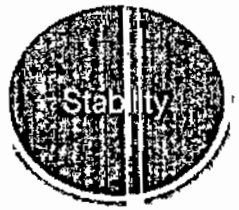


Cement CPI Index

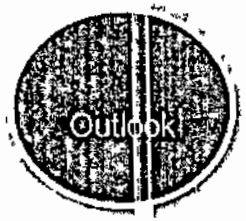


Labour CPI Index





- The PKR Exchange Rate is projected for managed stability, minimizing import cost volatility.
- A significant disinflationary trend is anticipated across the broad Consumer Price Index (CPI) and key sectoral CPIs (Cement, Steel, Fuel, Labour), indicating a more predictable cost environment.



- Despite recent volatility, IMF projections suggest a recovery, with GDP growth expected to reach 3% by FY 2025. Post-2025, growth is anticipated to rise further, ranging between 4.1% and 4.8%, potentially surpassing the current CAGR of 3%.
- Domestic financial rates like KIBOR are expected to show a gradual easing, supporting credit expansion. Global benchmarks such as SOFR are projected to remain stable.

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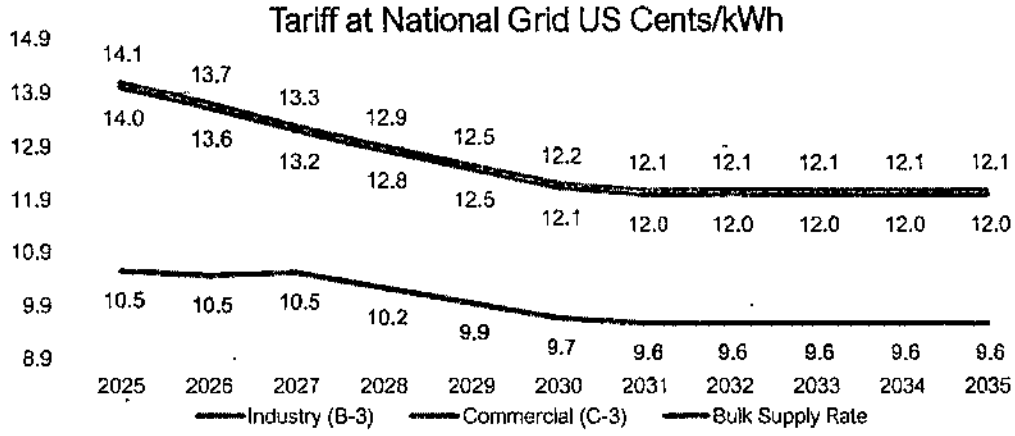
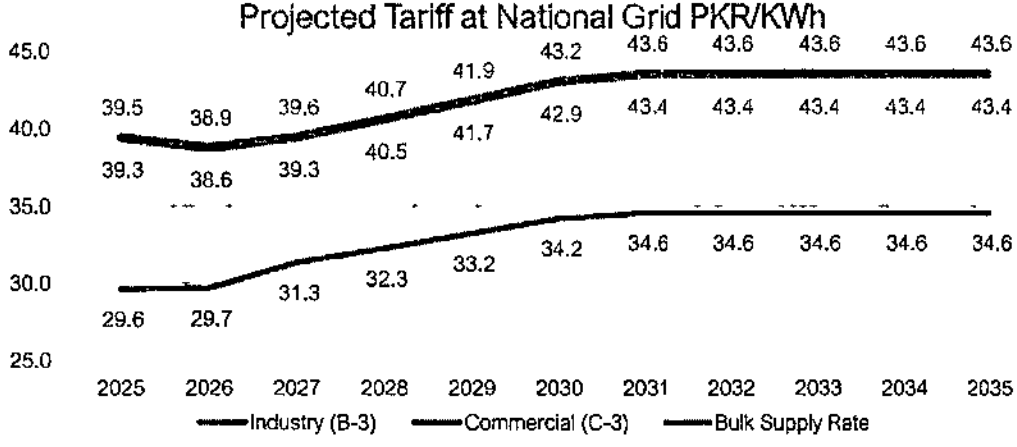
Economic Environment- Pakistan

Projected Electricity Prices of National Grid

The crude oil prices, inflation and interest rates have declined in 2025, that resulted in electricity price reduction in May 2025. The forecasted electricity price assumes impact of global and reginal economic indicators, discussed above. However, it does not assume further decline in electricity demand. Even if there is substantial adoption of solar and wind, the forecasted price trend in US cents/kWh is expected to hold that is from 10.5 Cents/kWh in 2025 will decrease to 9.5 Cents/kWh by 2035.

Applicable Tariff for B-3 Category Loads (up to 5000 kW at 11/33 kV)	May 2025	Comments
Weighted Average Base Tariff	30.80	
Fixed Charges (MDI)	1.68	
Quarterly Adjustment	-1.55	3rd Quarter FY25 Tariff Adjustment
Quarterly Adjustment	-1.90	2nd Quarter 2024-25 Tariff Adjustment
Fuel Price Adjustment	-0.29	Relief of FPA of March 2025 will be given in May 2025 bills
Fuel Price Adjustment	-0.90	Relief of FPA of May 2025
FC Surcharge	3.23	PHL Loan Markup
Total	31.06	
Electricity Duty	0.26	1% of variable cost (base tariff + quarterly adjustment + FPA)
GOP Subsidy	-1.71	Subsidy is expected disappear in one year period
Applicable Tariff	29.62	





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Outlook of Khyber-Pakhtunkhwa (KPK) Province

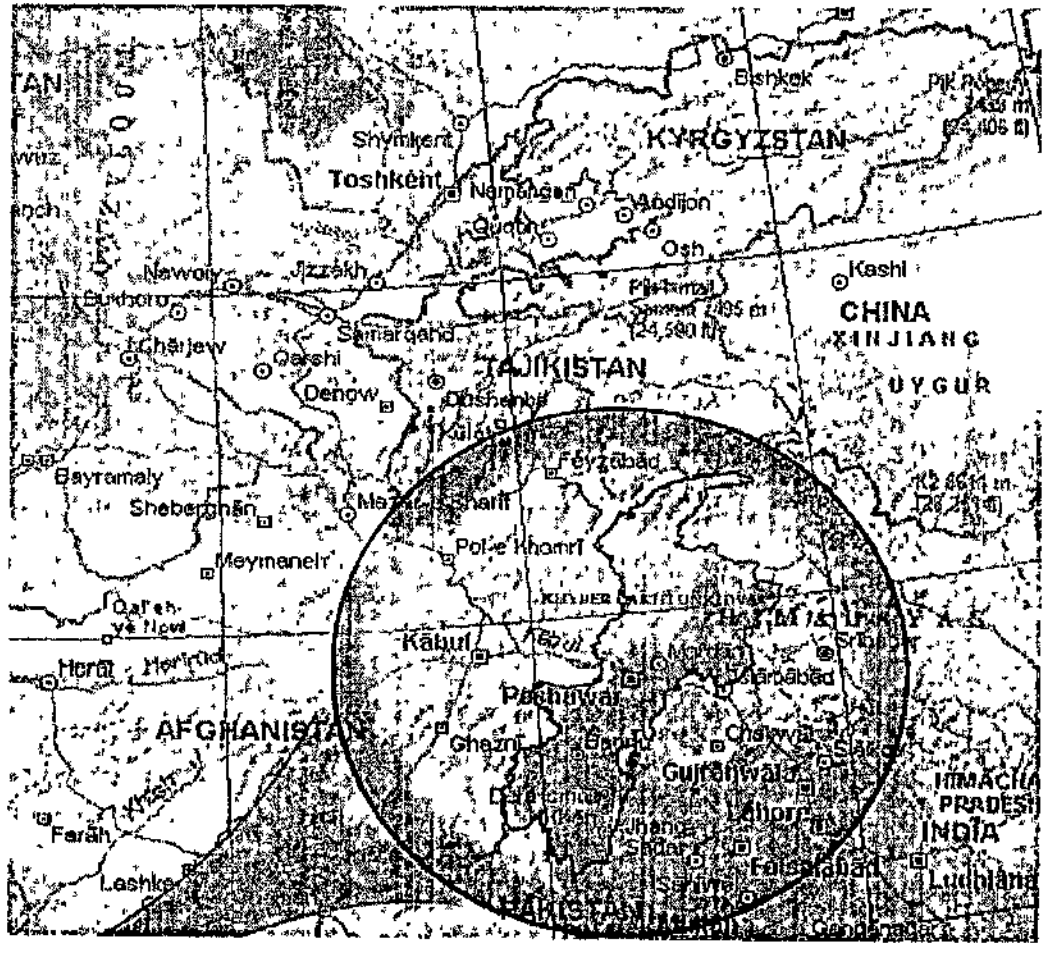
Strategic Location & Trade Connectivity



KPK has strong economic potential, with a 3.9% GDP growth rate in 2023-24, surpassing the national average.

Strategically located near Punjab, KPK benefits from access to a major consumer and industrial market. It also serves as a key trade hub, linking Pakistan to Central Asian Republics (CARs) and TAN countries, including Uzbekistan, Tajikistan, and Kazakhstan.

The province's economy is diverse, with agriculture contributing 20% of the GDP, while mining and manufacturing, valued at PKR 36 billion, play a key role in the production of marble, limestone, and gemstones.



Source: Bureau of Statistics ,Planning & Development Department , Government of Khyber Pakhtunkhwa

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Outlook of Khyber-Pakhtunkhwa (KPK) Province

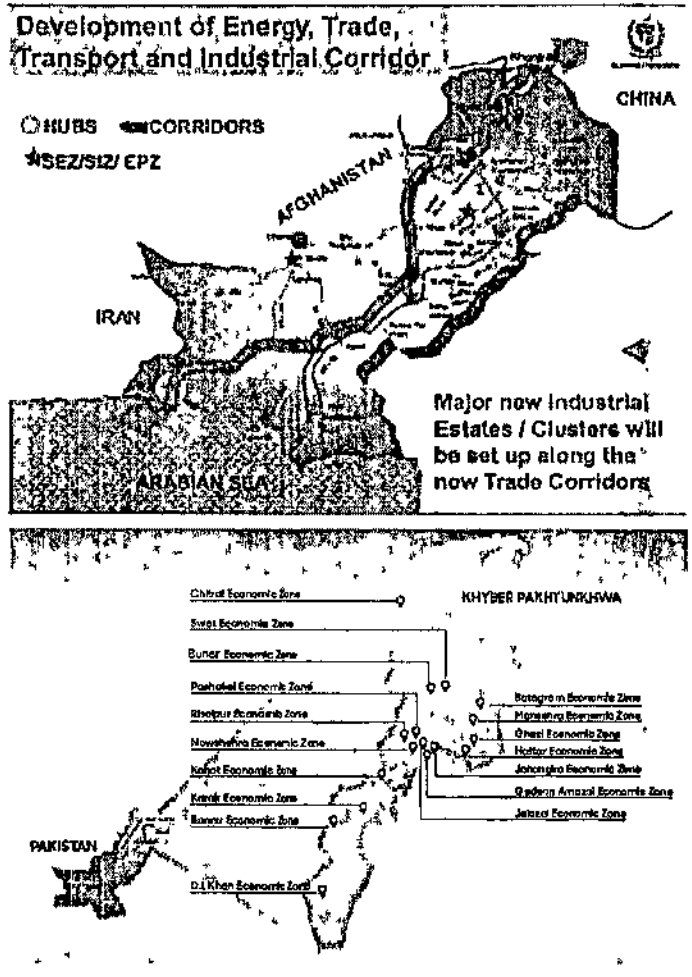
Limited market size and locational disadvantage (high freight for raw materials and finished goods)

The Government of Khyber Pakhtunkhwa (GoKPK) has been actively working towards industrial development by establishing new economic zones in Ghazi, Chitral, Jalozai, and Nowshera (extension), aimed at boosting investment and employment opportunities. The province's industrial policy is designed to promote sustainable and balanced industrial growth while capitalizing on its geostrategic position along the China-Pakistan Economic Corridor (CPEC).

A key initiative in this effort is the Rashakai Special Economic Zone (SEZ), a flagship project under CPEC's industrial cooperation framework, spanning 1,000 acres and developed through a partnership with China Road and Bridge Corporation. This SEZ is envisioned as a hub for pharmaceuticals, engineering, steel, and food processing industries, with Phase 1 completed and partial electricity infrastructure in place.

Other major industrial projects include the Buner Economic Zone (126.5 acres), focused on marble processing, with development approved and land possession awaited; the Industrial Park Dir (62.75 acres), planned for agriculture, food, and marble processing, pending government approval; the Chitral Economic Zone (40 acres), set to cater to mineral, food, and marble industries, awaiting utility connections; and the Industrial Park Swat (126.28 acres), designed for food, textiles, cosmetics, and minerals, with land acquisition in progress and a power requirement of 10 MW. By 2031, these zones are expected to become key industrial centers, benefiting from CPEC incentives and advanced infrastructure.

However, industrial growth in KPK faces challenges due to high freight costs and a relatively limited market size. To enhance competitiveness, ensuring low-cost electricity through hydel power generation remains a critical requirement.



Source: Khyber Pakhtunkhwa Economic Zones Development & Management Company – Company Profile
Source: KP Government Unveils Draft of New Industrial Policy. Retrieved from https://www.pakistantoday.com.pk/2020/03/02/kp-government-unveils-draft-of-new-industrial-policy/
Source: KP Government Keen on Bringing About Industrial Revolution. Retrieved from https://www.thenews.com.pk/print/480881-kp-government-keen-on-bringing-about-industrial-revolution

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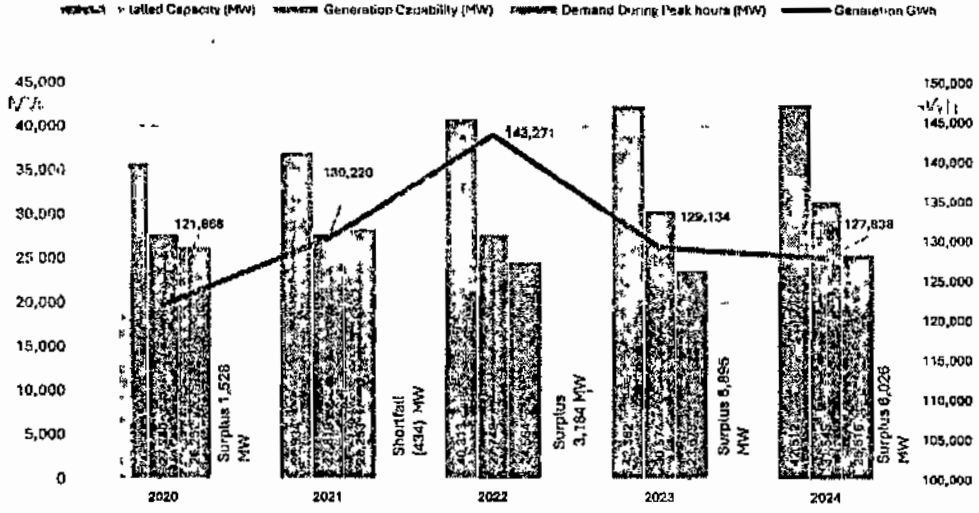
Status of National Grid

National Grid is limited to128 Billion units purchase, currently in surplus state that may continue next 5-7 years

Trend of Peak Demand, Installed Capacity and Capability

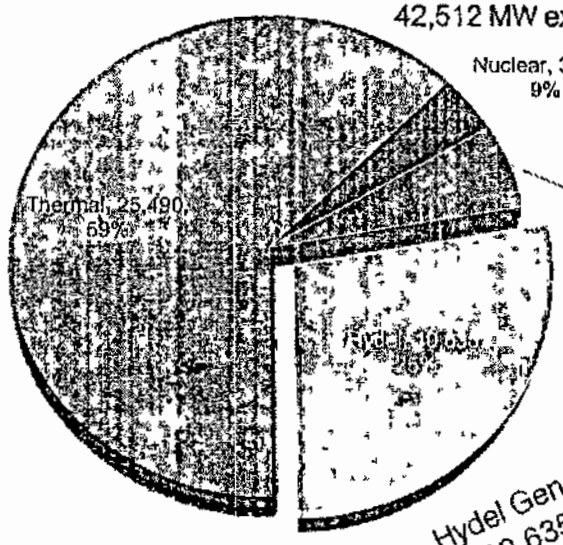
Since FY 2020, Pakistan's generation capability has surpassed peak demand, except for a deficit in FY 2021. By FY 2024, the surplus reached 6,026 MW. The focus has now shifted from capacity expansion to cost optimization and greater reliance on indigenous energy sources.

Served Demand and Availability



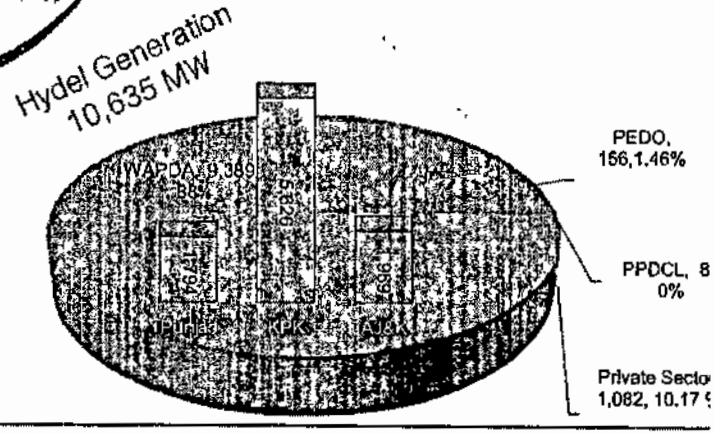
Generation Capability is the maximum generation capability of any day recorded during the year and Peak Demand is the maximum demand of any day recorded during the year.

Pakistan's Generation Portfolio – 2024 (CPPAG / NTDC)



Pakistan's installed generation capacity of 42,512 MW is heavily skewed towards thermal (59%) with hydel sources accounting for 25% of the total capacity.

A bulk of the operational hydel generation capacity i.e. 9,389 MW is owned by WAPDA.



PPDCL = Punjab Power Development Company Limited

Source: State of Industry Report 2024 Table 5, 9 and 50

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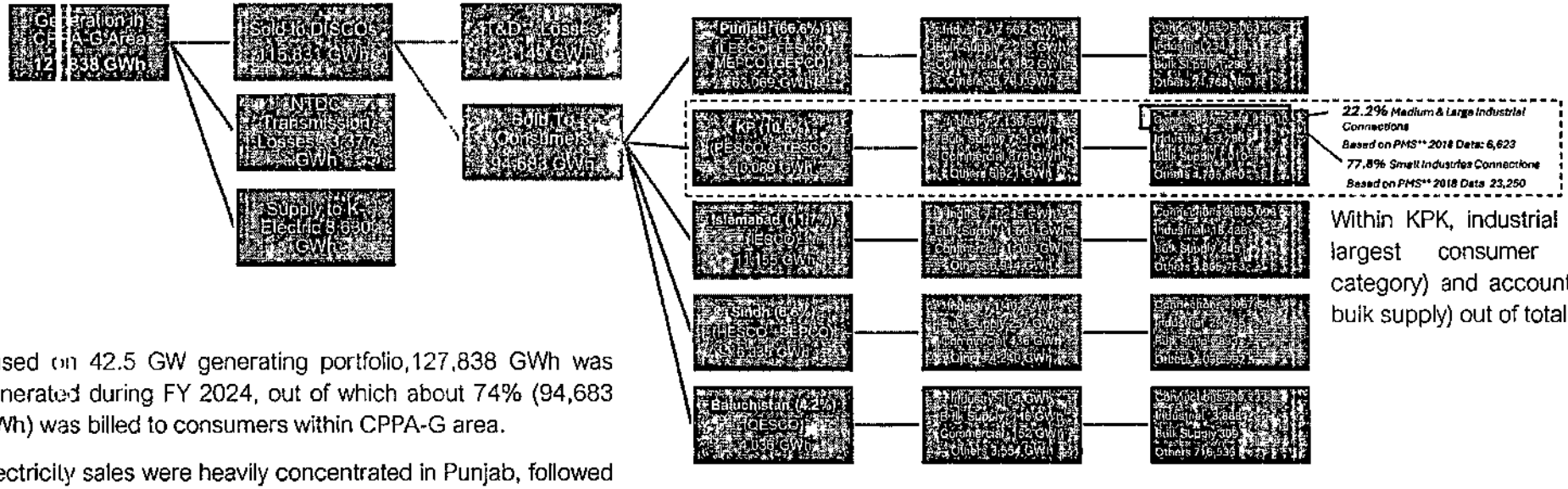
Status of National Grid

From National Grid, KPK consumes 10 Billion Units that includes Industrial Consumption of 2.2 Billion Units

The Government of Pakistan (GoP) is prioritizing the acceleration of renewable energy adoption, with a strategic shift towards strengthening and expanding the country's transmission and distribution (T&D) infrastructure. This infrastructure has long been a critical bottleneck to achieving reliable electricity delivery across residential, commercial, and industrial segments. As of FY 2024, the electricity consumption status is summarized below:



Within KPK, industrial sector is the 2nd largest consumer (after domestic category) and accounts to 21.2% (excl. bulk supply) out of total billed units in KP.

Based on 42.5 GW generating portfolio,127,838 GWh was generated during FY 2024, out of which about 74% (94,683 GWh) was billed to consumers within CPPA-G area.

Electricity sales were heavily concentrated in Punjab, followed by Islamabad and KPK. Within the CPPA-G region, 10.6% (10,089 GWh) of the total billed units were sold in KP through PESCO and TESCO.

Electricity consumption in KPK is 10,089 GWh, out of which majority of consumption is of the residential segment, served mainly by PESCO (which has high T&D losses and a low recovery rate). The second largest consumer is industry, at 2,139 GWh. With attractive electricity prices, the sector in KPK can grow; however, assuming an average growth rate of 4%, industrial consumption might reach 3,166 GWh or slightly higher by 2035.

Source: State of Industry Report 2024 Table 60, 65, & 67
** T&D Losses = Transmission & Distribution Losses
*** Power Market Survey published in Aug 2019

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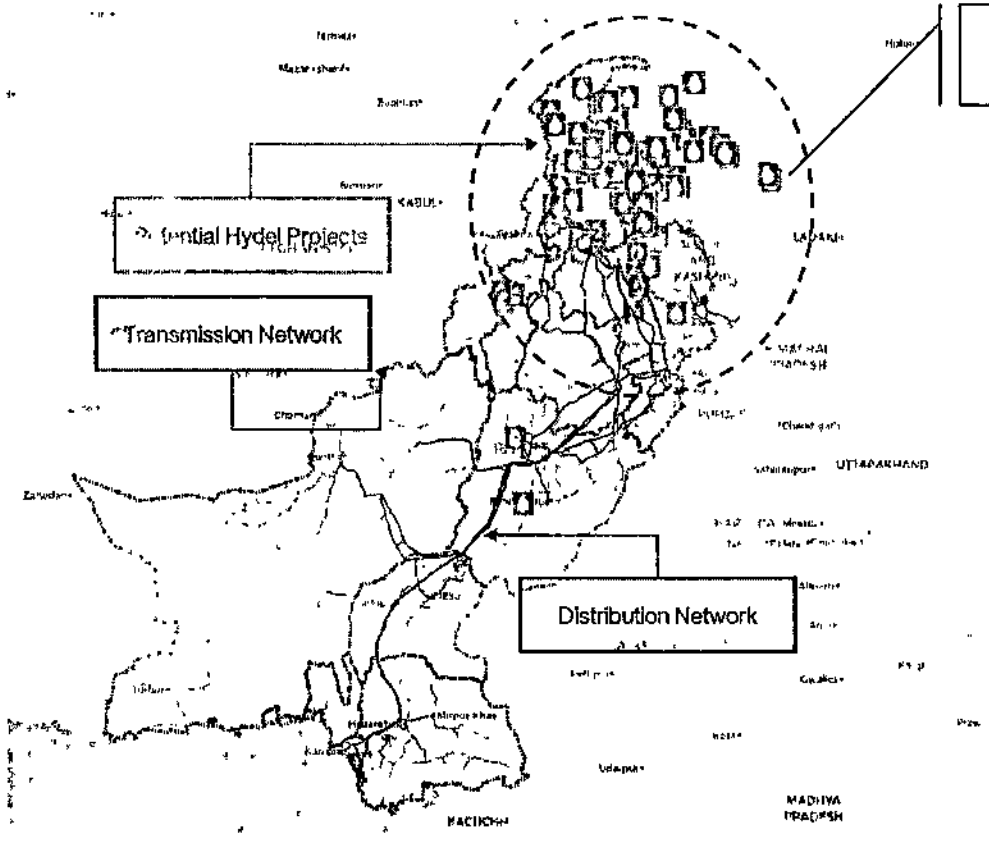
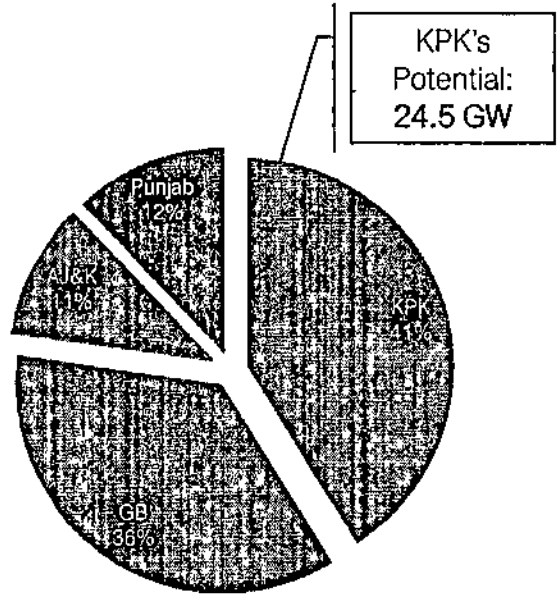
KPK Generation Pipeline – Hydro Resource in KPK

Majority of hydropower resources are in KPK

Out of 60GW of hydropower potential of Pakistan, the largest chunk 41% is of KPK.

Only 16%–20% of Pakistan's total hydropower potential has been harnessed to date. A key constraint is the limited transmission and distribution infrastructure in the northern region, as shown in Map[2]. This underutilization highlights a clear investment opportunity in light of the proposed energy sector framework.





1 Hydropower & Dams World Atlas.
2 Sourced from NREL database for Pakistan

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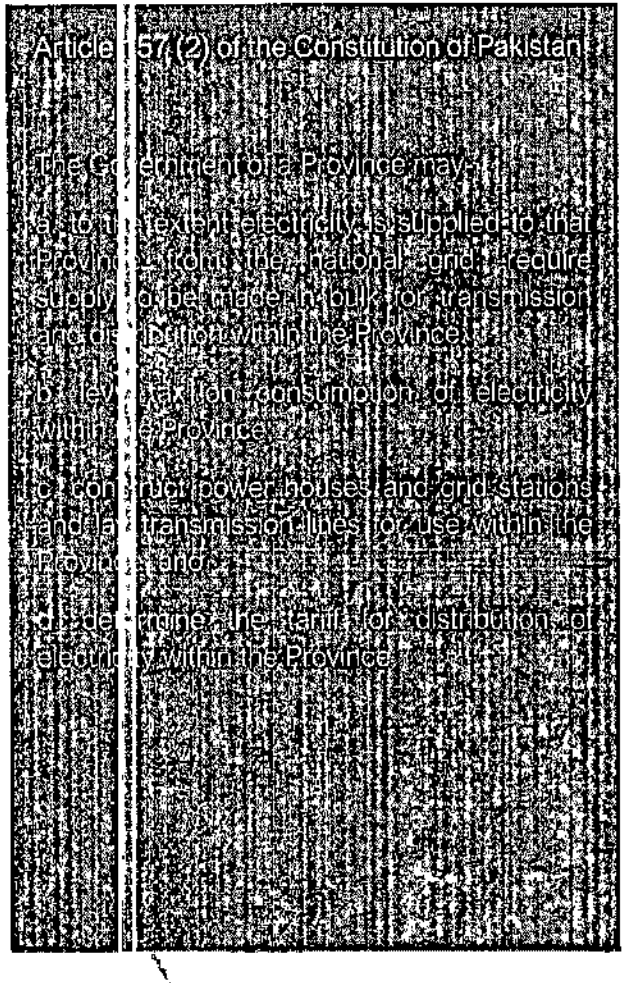
KPK Generation Pipeline – Hydro Resource in KPK

About Pakhtunkhwa Energy Development Organization (PEDO)



KPK is legally entitled to establish a provincial regulatory framework to manage its energy resources effectively.

- Provinces can develop power projects, transmit and distribute electricity generated within the province and set tariffs for said purpose (Article 157)
- Section (7)(4) of the NEPRA Act 1997 also acknowledges that provinces had been allowed to construct power houses and grid stations and lay transmission lines for use within the province and determine the tariff for the distribution of electricity within the province.
- KPK Hydropower Policy 2016: Supports power projects in KPK through private, public-private, and IPP models.

Upcoming regulatory authority and transmission line company are discussed in the next Section of this report

PEDO Legal Structure

- PEDO is not registered as a separate company under corporate laws, but it is a corporate body established under a provincial law, having perpetual succession and a common seal, with powers subject to the Pakhtunkhwa Energy Development Organization Act, 2020 (PEDO Act).
- PEDO can enter into agreements and contracts, acquire hold, and sell property, both movable and immovable undertake projects, generate, transmit, and distribute within the Province, and has the power to sue and be sued.
- Under the PEDO Act, the Organization can procure commercial loans from DFIs, institutions, and the capital market for its financial sustainability rather than relying on government funding.

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KPK Generation Pipeline – Hydro Resource in KPK

About Pakhtunkhwa Energy Development Organization (PEDO)

Reorganization of PEDO

Under the Pakhtunkhwa Energy Development Organization Act, 2020, PEDO has been reconstituted as a body corporate having perpetual succession and a common seal, with power, subject to the provisions of the Pakhtunkhwa Energy Development Organization Act, 2020 (PEDO Act), to enter into agreements and contracts, acquire hold and sell property, both movable and immovable, undertake projects, generate, transmit, distribute and regulate electricity, issue licenses within the Province and shall have the power to sue and be sued.

Exclusivity of GoKPK

Under the Pakhtunkhwa Energy Development Organization Act, 2020, it has been clarified that all the hydro power project sites, within the Province of KPK, exclusively vest in the KPK Government. The KPK Government shall develop the hydro power project sites in the public sector or on a public-private partnership basis, and the hydro power project sites may be allocated to the private sector for hydro power project development with the permission of the KPK Government.

Major functions & powers of PEDO

- Provide cost-effective and sustainable power generation
- Attract private sector investment through full cost recovery and competitive returns.
- Ensure transparent and expedited development of power projects.
- Promote investor participation in hydropower and other renewable energy projects.
- Ensure the development and welfare of all stakeholders.
- Expand green energy solutions, including thermal, solar, wind, hydro, and waste-to-energy projects.
- Approve and undertake power projects of any financial value.
- Regulate, generate, transmit, and distribute electric power services.
- Conduct feasibility studies, engineering designs, and research for power sector development.
- Establish companies for energy projects with the approval of the KPK Government under the Companies Act.
- Acquire land for public-purpose energy projects as per the Land Acquisition Act, 1894.Perform any other necessary functions or powers related to energy sector development.

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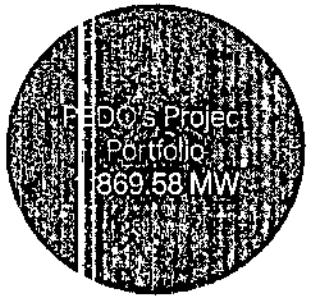
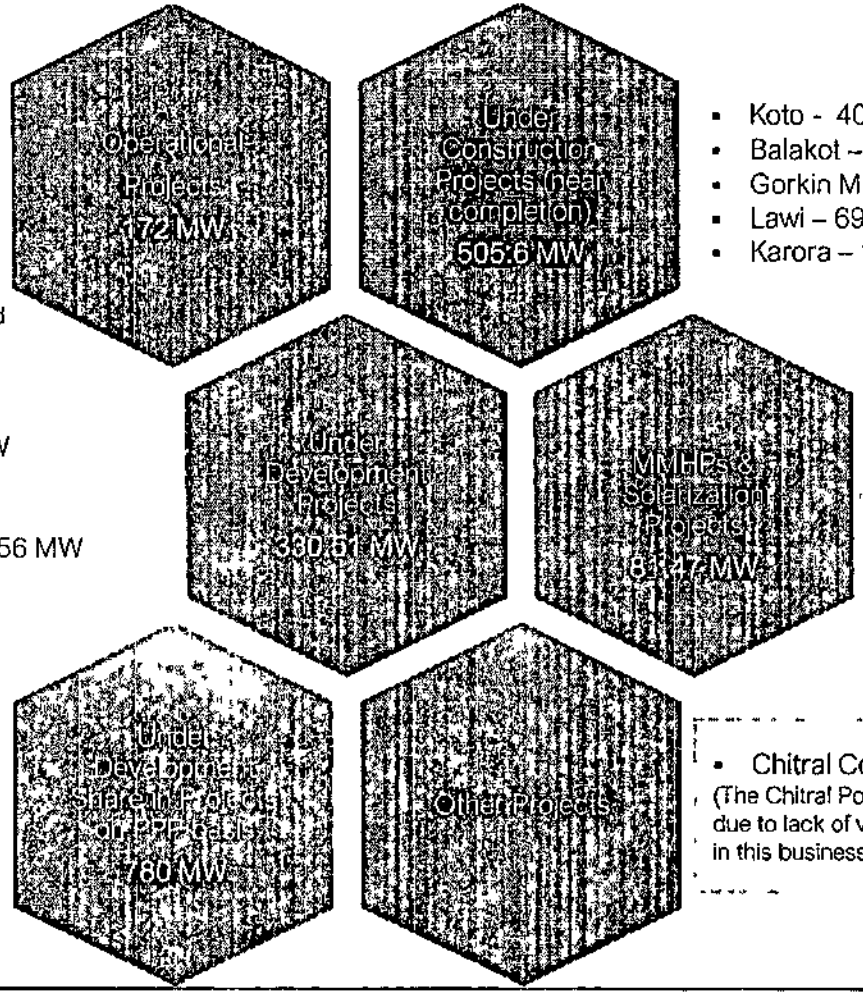
KPK Generation Pipeline

PEDO's investment portfolio

- Malakand III – 81 MW
- Pehur – 18 MW
- Machai – 2.6 MW
- Shishi – 1.8 MW
- Daral Khwar – 36.6 MW
- Reshun – 4.2 MW
- *Ranolia – 17 MW
- Jabori – 10.2 MW

*Ranolia is non-operational as was damaged by floods and is under rehabilitation.





- Koto - 40.8 MW
- Balakot – 300 MW
- Gorkin Matiltan – 84 MW
- Lawi – 69 MW
- Karora – 11.8 MW

- Gabral Kalam – 95 MW
- Madyan- 215 MW
- Mujahidin – 6.95 MW
- Chapari Charkhel–13.56 MW

- MMHP's- 34.7MW
- Solar- 46.77 MW

- Lower Spat Gah* – 496 MW
- Naran Batakundi – 235 MW

(Naran -Batakundi is under consideration for PPP arrangements)

*The scope of this segment is limited to the Lower Spat Gah project, because of its current advanced status.

- Chitral Corridor Projects

(The Chitral Portfolio is briefly discussed, however due to lack of visibility, same have not been assumed in this business plan)

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KPK Generation Pipeline

Private sector HPPs at relatively advanced stage

After the successful evacuation of the Swat and Chitral corridors, private sector potential hydropower projects under IPP mode will be developed.

S.No	Project	Capacity (MW)	Sponsor Name	District	GWh	Estimated Cost (MUSD)	Targeted COD
1	Kalam Asrit HPP	238	KOEN (Korea)	Swat	945.8	399.73	2034
2	Asrit Kedam HPP	229	KOEN (Korea)	Swat	944.7	371.57	2034
3	Shigo Kas HPP	102	Saifco Energy	Lower Dir	512	306.77	2032
4	Sharmai HPP	150	Sapphire Electric	Upper Dir	689	369.57	2032
5	Arkari Gol HPP	99	Master Hydro	Chitral	372	214.55	2032
6	Gabral Utror	79	Markhor Energy	Swat	310.88	199.65	2032
7	Bankhwar HPP	35	Markhor Energy	Swat	123.68	93.08	2031
8	Artistic-2 HPP	55	Artistic Milliners	Swat	211.745	113.5	2032
9	Daral Khwar-II HPP	9.5	Siddiqsons	Swat	43.82	23.66	2031
10	Balkani HPP	7.75	Shangla Power	Shangla	33.95	15	2031
11	Shalfalam HPP	60	Siddiqsons	Upper Dir	270.45	170.17	2033
12	Artistic-1 HPP	63	Artistic Milliners	Upper Dir	306.57	236.8	2032
13	Nila Da Katha HPP	31.24	Sino Pak Power	Manshera	136.8	58.4	2032
14	Chowkel Khwar HPP	60	MMP	Swat	241.78	120	2033
15	Bhimbal Katha HPP	26	Multiline Enterprises	Manshera	117.5	72.9	2032
Total		1,244.49			5,260.68	2,765.35	

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KPK Generation Pipeline

Chitral corridor – evacuation restrained by transmission capacity

Potential projects listed hereunder were assessed by PEDO and were finalised for taking forward based on feasibility studies conducted by renowned consultants. Private secto can undertake below HPPs within IPP regime, supply to grid/BPCs under CTBCM, or to meet power requirements of public/private distribution companies (existing or upcoming).

#	HPP in Chitral Corridor with Feasibility Studies Completed	Capacity (MW)	Energy (GWh/Annum)	Estimated Cost of the Hydropower Project USD Million	Estimated Per MegaWatt Cost of the HPP (USD Million/MW)
1	Kari- Mushkur HPP	495	2,165	1228	2.48
2	Turen Mori Kari HPP	350	1,450	753	2.15
3	Jameshill more Lasht HPP	260	1,062	616	2.37
4	Laspur Miragram HPP	230	874	448	1.95
5	Shushgai Zindoli HPP	144	613	225	1.56
6	Shogo Sin HPP	132	583	269	2.04
7	Mujigram Shaghore HPP	64	278	182	2.84
	Total for HPP	1,675	7,025	3,721	

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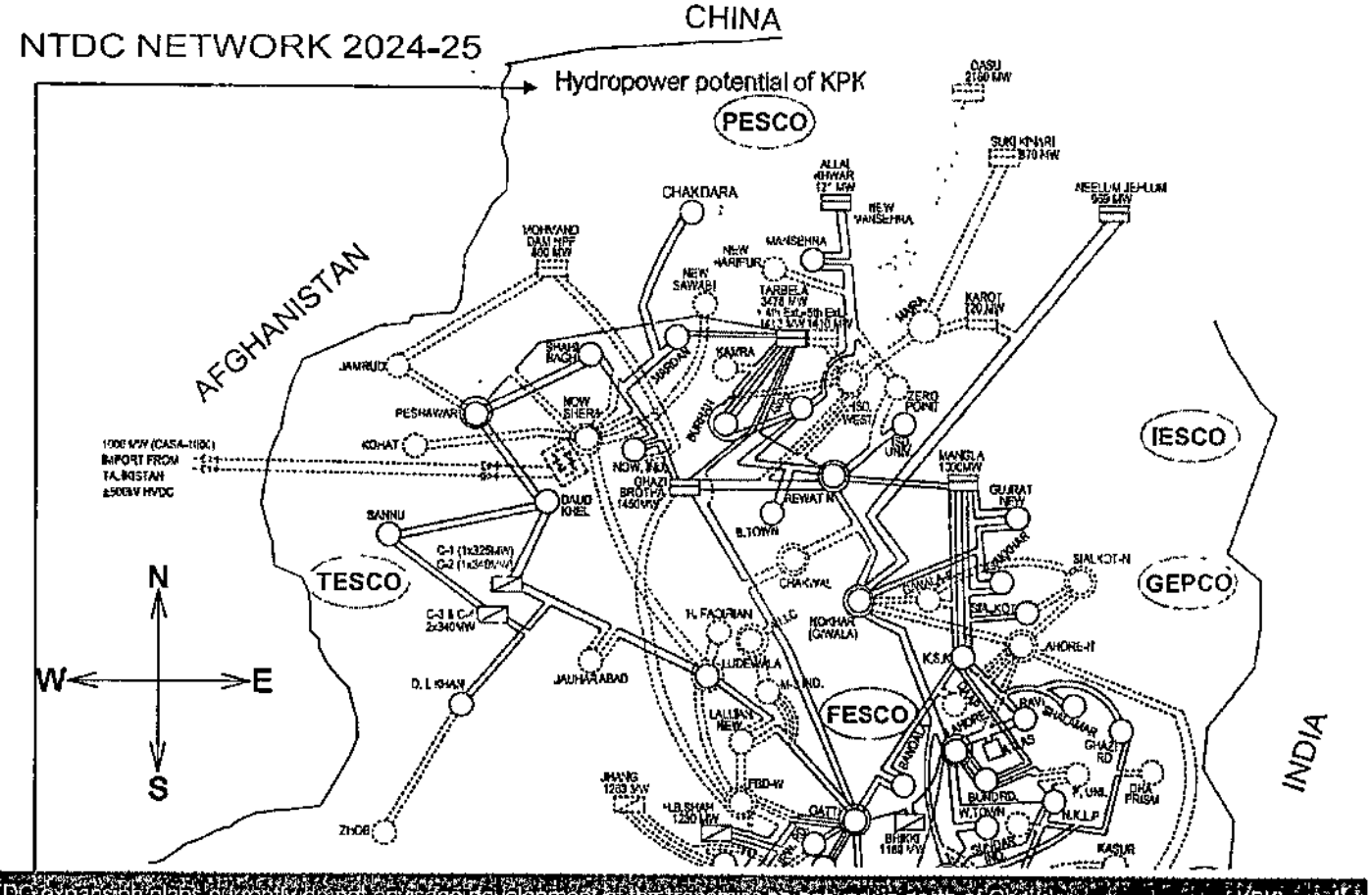
Risks Associated with PEDO Supply Potential as of June 2025

Sparse Transmission Network

The utilization of KPK's hydro potential is significantly constrained due to insufficient capacity in the transmission and distribution network to evacuate power from the envisaged hydro power projects.

Nationa Transmission & Dispatch Company Limited (NTDC)'s network expansion plans till 2025 do not seem to account for a significant number of hydro projects being considered for development in KPK under the provincial regime.

Accordingly, it provides an opportunity for the province to invest in the transmission lines in view of the upcoming hydro projects in the area.



NTDC expansion plans currently do not envisage development of the transmission network in north of Chakdara where most of KPK's planned hydro projects are located.

Planned NTDC Grid map for 2024 - 25 showing major load and generation centers and transmission zones in the country's north.

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Risks Associated with PEDO Supply Potential as of June 2025

Planned Supply Increase from 1B units to 5B units (including under development projects and PPP project)

The projects under development face risk of non-procurement by national grid. These mainly include Balakot, Gabral Kalam, Madyan, Lower Spatgah (PPP Project), Mujaheden and Chapri Charkhel. The non-procurement risk emanate from following facts:

- Supply to grid has become competitive – (a) there is no scarcity of base load at grid and (b) price of hydro power might not be able to compete with solar and wind energy.
- The possibility of carving PESCO's residential customers is very low. Even with the acquisition of PESCO, the DISCO will remain tied with legacy contracts.

Limited options for increase in supply are (a) increasing KPK industrial demand and (b) finding new markets for supply. For this, PEDO might require to focus on new solutions for supply to consumers within KPK and outside the province. To reduce cost of generation PEDO might also consider focusing on hybrid generation (Hydro-Solar Hybrid generation) or types of energy sold (selling hydrogen rather than electricity).

	MW	2026	2027	2028	2029	2030	2031	2031	2033
Malakand-III	81	246	246	246	246	246	246	246	246
Pehur	18	53	53	53	53	53	53	53	53
Daral Khwar	37	153	153	153	153	153	153	153	153
Ranolia	17	-	50	92	92	92	92	92	92
Reshun	4.2	15	15	15	15	15	15	15	15
Machai	2.6	7	7	7	7	7	7	7	7
Shishi	1.88	7	7	7	7	7	7	7	7
Jabori	10	57	57	57	57	57	57	57	57
Matiltan	84	48	277	277	277	277	277	277	277
Lawi	69	144	242	242	242	242	242	242	242
Koto	41	166	166	166	166	166	166	166	166
Karora	12	57	57	57	57	57	57	57	57
Balakot	300	-	-	-	617	914	914	914	914
Gabral Kalam	95	-	-			293	293	293	293
Madyan	215	-	-			671	671	671	671
Charkhel	14	-	-			65	65	65	65
Mujaheden	7	-	-			33	33	33	33
Lower Spatgah	470	-	-	-	-	-	-	-	1,925
Total		953	1,330	1,372	1,989	3,348	3,348	3,348	5,273

Note-1: In case of operational projects (in 2025), the generation estimates above have been developed based on actual average generation of last 2-3 years and in case of under construction/development projects the benchmark generation has been discounted by 20%, as per discussion with PEDO management.

Under-development projects are targeted to achieve COD in 2028, however keeping in view the level of risks associated with hydropower generation these projects are expected to complete in 2030.

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