



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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Registrar

No. NEPRA/R/LAG-145/11367-72

April 27, 2020

Chief Executive Officer
Pakhtunkhwa Energy Development Organization (PEDO)
38/B2, Phase-V, Hayatabad,
Peshawar

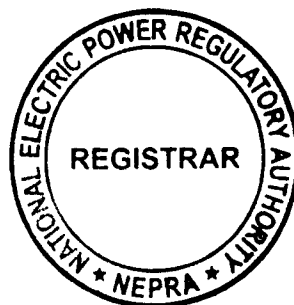
**Subject: Modification-I Generation Licence No. GL(HYDEL)/08/2009
Licence Application No. LAG-145
Pakhtunkhwa Energy Development Organization (PEDO)
(Pehur Hydropower Project)**

Reference: PEDO's LPM submitted vide letter No. 9141-43/PEDO/CEO/NEPRA dated 21.11.2019.

The Authority has approved Modification in Generation Licence No. GL(HYDEL)/08/2009 dated November 26, 2009 in respect of Pakhtunkhwa Energy Development Organization (PEDO) for it Pehur Hydropower Project, pursuant to Section-26 of the NEPRA Act read with Regulation 10(11) of the NEPRA Licensing (Application and Modification Procedure) Regulations 1999.

2. Enclosed please find herewith determination of the Authority in the matter of Licensee Proposed Modification in the Generation Licence of PEDO along with Modification-I in the Generation Licence No. GL(HYDEL)/08/2009 dated November 26, 2009 as approved by the Authority.

Enclosure: As Above



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(Syed Safer Hussain)

Copy to:

1. Secretary, Power Division, Ministry of Energy, 'A' Block, Pak Secretariat, Islamabad.
2. Managing Director, NTDC, 414 WAPDA House, Lahore.
3. Chief Executive Officer, CPPA-G, ENERCON Building, Sector G-5/2, Islamabad.
4. Chief Executive Officer, Peshawar Electric Supply Company (PESCO), NTDC House. Shami Road, Peshawar.
5. Director General, Environmental Protection Agency (EPA), 3rd Floor, Old Courts Building, Khyber Road, Peshawar

National Electric Power Regulatory Authority
(NEPRA)

Determination of the Authority in the Matter of Licensee
Proposed Modification of Pakhtunkhwa Energy Development
Organization for its Pehur Hydel Power Plant

April 27, 2020
Case No. LAG-145

(A). Background

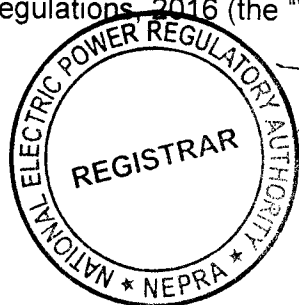
(i). The Authority in terms of Section-15 (now Section 14-B) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act"), granted a generation licence [No. GL(Hydel)/08/2009 dated November 26, 2009] to Pakhtunkhwa Energy Development Organization (PEDO).

(ii). The above mentioned licence envisaged setting up a generation facility/Hydel Power Plant of 18.00 MW to be located at Pehur High Level Canal on the right bank of River Indus Downstream of Tarbela reservoir in District Swabi, in the province of Khyber Pakhtunkhwa and supplying to the concerned distribution company/utility.

(B). Filing of Application

(i). In accordance with Regulation-10(2) of the NEPRA Licensing (Application & Modification Procedure) Regulations, 1999 (the "Licensing Regulations"), PEDO communicated a Licensee Proposed Modification (LPM) in its above mentioned generation licence on November 25, 2019.

(ii). In the "text of the proposed modification", PEDO has submitted that it had signed Energy Purchase Agreement (EPA) with Central Power Purchasing Agency (Guarantee) Limited (CPPAGL) for supplying electric power to National Grid through the concerned distribution company/utility i.e. Peshawar Electric Supply Company Limited (PESCO). However, now instead of supplying to PESCO, it intends to supply/sell electricity to Bulk Power Consumers-BPC(s) through wheeling as stipulated in the NEPRA (Wheeling of Electric Power) Regulations, 2016 (the "Wheeling Regulations"). These BPC(s) include: (a). AJ



Textile Mills Limited (AJTML); (b) Cherat Cement Limited (CCL); (c). Cherat Packaging Limited (CPL); (d). Gadoon Textile Mills Limited (GTML); and (e). Premier Chipboard Industries (Private) Limited (PCBIPL).

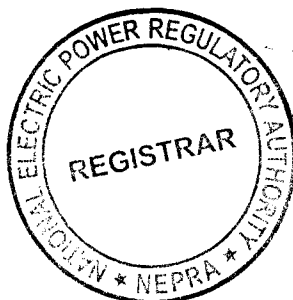
(iii). Regarding the "statement of the reasons in support of the modification", PEDO submitted that in terms of Regulation-17 of the Wheeling Regulations, a wheeler of power i.e. generation facility is only permitted to supply the power to BPC(s) under a Second-Tier Supply Authorization (STSA) from the Authority under Rule-7 of the NEPRA Licensing (Generation) Rules, 2000 (the "Generation Rules"), therefore, a modification in the existing Generation Licence is required.

(iv). About the statement of "the impact on tariff", "quality of service (QoS)" and "the performance by the licensee of its obligation under the licence", PEDO submitted that the proposed modification will not have impact on tariff, QoS and the performance of the licensee of its obligation under the existing licence.

(C). Processing of Modification

(i). After completion of all the required information as stipulated under the Regulation-10(2) and 10(3) of the Licensing Regulations, by PEDO, the Registrar published the communicated LPM on December 03, 2019, in one (01) Urdu and one (01) English newspaper as stipulated in Regulation 10(4)(b) of the Licensing Regulations, informing the general public about the communicated LPM and inviting their comments within a period of fourteen (14) days from the date of the said publication.

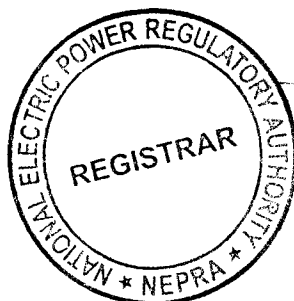
(ii). Apart from the above, separate letters were also sent to other stakeholders including Government Ministries and their attached departments, various representative organizations, individual experts and others on December 03, 2019. The stakeholders through the said letters were informed about the communicated LPM and publication of its notice in the press. Further, the said entities were invited to submit their views and comments in the matter, for assistance of the Authority.



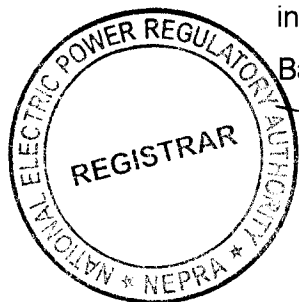
(D). Comments of Stakeholders

(i). In reply to the above, the Authority received comments from six (06) stakeholders including Energy Department of Government of Sindh (EDGoS), PESCO, CPPAGL, National Transmission & Despatch Company Limited (NTDC), Alternative Energy Development Board (AEDB) and Punjab Power Development Board (PPDB). The salient points of the comments offered by the said stakeholders are summarized in the paragraphs as mentioned below:-

- (a). EDGoS supported the proposed modification in the generation licence however, asserted that PEDO should ensure that there is no adverse impact on tariff and quality of service. Also, EDGoS stressed that the required guidelines on environment should strictly be followed;
- (b). PESCO submitted that the total installed capacity of generation facility/Hydel Power Plant of Pehur is 18.00 MW (consisting of 3 x 6.00 MW each). Only one low head unit (1 x 3.00 MW) is operated from February to June whereas the remaining two high head units (2 x 6.00 MW) are operated during June to January. The generation capacity of the Pehur Hydel Power Plant varies between 0.00 MW to 10.80 MW. Further, the review of data for the last nine (09) years reveals that the canal remained closed for a period of fifty two (52) days in a year. In view of the said, it is clear that the power generated from Hydel Power Plant of Pehur will not be sufficient to overcome the demand of the BPC(s) which have signed the Energy Wheeling Agreement (EWA) with PEDO. It is pertinent to mention that under Section-22(2) of the NEPRA Act, a BPC intending to stop purchasing electric power from a distribution company and moving to a generation company is required give a notice in writing one (01) year before such stoppage however, none of the BPC(s) has informed PESCO of this stoppage so far. PESCO highlighted the tariff for those BPC(s) proposed to be supplied by PEDO



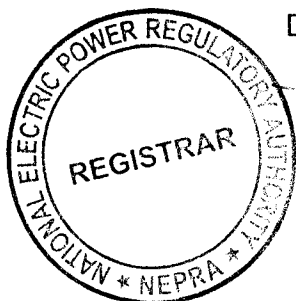
will be different from the rest of consumers of the Gadoon Industrial Estate which will result in resentment. PESCO also highlighted that the existing formula for the Use of System Charge (UoSC)/Wheeling Charge given in its tariff determination does not consider the cost of losses therefore, it will not be able to recover the same from the BPC(s) having contracted with PEDO. In view of the said, it (PESCO) will bear the losses while taking the injected power from the Hydro Power Plant of Pehur and supplying the same to the BPC(s). As the cost of losses is part of its power purchase price however, PESCO will not be able to recover the same from those BPC(s) contracted with PEDO through a Bilateral Agreement. PESCO stated that its existing tariff structure recovers only a small portion of the total fixed cost whereas, the major portion of it is recovered through the variable charges. Any source of supply not having a firm capacity, the BPC(s) will continue to rely on national pool and the corresponding capacity cost will accrue and will translate into the stranded capacity cost to be borne by the other regulated consumers. Therefore, a mechanism is required to be developed for the recovery of the cost of the committed capacity (incurred by the distribution company/power purchaser) from the BPC in a reasonable time frame when it completely switches to another source of supply. Further, a separate category for tariff needs to be devised for those BPC(s) which plan using the supply from the distribution company as a back-up source or for fulfilling its requirements in a partial manner. The tariff may include the (i). a fixed component to recover the "actual incurred capacity cost" through BPC within the determined term at the sanctioned MDI; and (ii). a variable component to cover the share of BPC in the overall energy pool cost, with applicable indexation. PESCO also highlighted the issues arising of Banking of Energy and Liquefied Damages as stipulated in



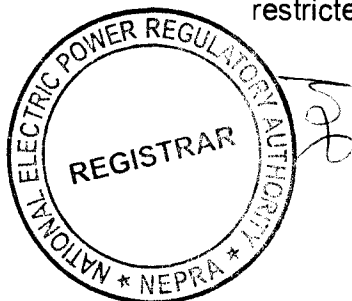
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the relevant regulations and suggested that this should not be made applicable in the EWA;

- (c). CPPAGL stated that PEDO intends to supply to five (05) BPC(s) from its Pehur Hydel Power Plant through wheeling using the network of PESCO. In this regard, several technical, commercial and financial issues needs consideration of the Authority including (i). Non recovery of cost of technical losses by Distribution Companies i.e. DISCO(s). The existing relevant regulations on wheeling ignore losses for bilateral trading parties that are borne by the remaining consumers of the DISCO(s). The said regulations allows the trading parties [(i.e. generation company and BPC(s)] to inject energy at one point and withdraw the same amount from any other point on the grid without considering the effect of losses. The current formula for the UoSC given in the Determination of Tariff for DISCO(s) does not recognize the cost of losses and hence DISCOs will be unable to recover the cost of losses from BPC(s) being supplied by generation companies like PEDO in the current case. Therefore, the cost of the losses needs to be charged to the prospective BPC(s) opting for wheeling under bilateral contract with the generators; (ii). Avoiding Cross-Subsidy Charges: - Under the current structure for tariff, large consumers/BPC(s) pay higher tariff to cross-subsidize the small consumers. Cross-subsidization is a policy/regulatory decision and is applicable to all consumers irrespective of purchasing electricity from DISCO(s) or having bilateral contract with generators. However, charging of cross subsidy is not addressed in existing Regulations for Wheeling and as such the BPC(s) will avoid the cross-subsidy payments. Therefore, the cross-subsidy charges should accordingly be charged to all the BPC(s) irrespective of being supplied DISCO(s) or doing bilateral trade through wheeling; (iii).



Non-recovery of UoSC of NTDC: - The UoSC of NTDC and fee of CPPAGL (system services) should also be applicable to all BPC(s) being supplied either by generators or by DISCO(s). This system service charge is not addressed in the existing relevant regulations and therefore, the BPC(s) opting for wheeling will avoid the system service charges and as such DISCO(s)/their consumers will continue to pay this cost on their behalf to NTDC and CPPAGL. Therefore, the cost of system services should accordingly be charged to the BPCs opting for wheeling; (iv). Non-recovery of Stranded Costs: - The long term contracts with take-or-pay capacity regime are already committed resulting in capacity adequacy for the next few years. It is apprised that DISCOs are charged Capacity Charges (as fixed cost) which is independent of their end-consumer sales. However, DISCOs charges almost all of their Energy and Capacity Charges through a volumetric rate structure (i.e. per kWh basis) to the end consumers. The fixed charges being charged to DISCO(s) are 70% of the total cost of energy billed by the pool. However, DISCO(s) only recover 3% as fixed charges from the consumers and the rest 97% of the total cost is recovered on per kWh basis. Due to this mismatch of cost structure (i.e. occurrence of fixed cost to DISCOs and recovery of fixed cost from end-consumers), any reduction in sales (kWh) due to BPC(s) leaving the market during this commitment period, will result in non-recovery of capacity charges. Therefore, the Authority may consider this aspect of recovery of stranded costs arising on account of open access/wheeling in the consumer-end tariff; (v). Hybrid Consumers (BPCs): - The existing regulations on wheeling does not restrict a BPC to purchase part of its load from DISCO as its consumer and part from another supplier/generator under bilateral contract. This is totally restricted in any other market i.e. either a BPC is solely a



consumer of the DISCO or contracts up to its full peak demand in bilateral trade from a generator. Due to the hybrid nature of consumers, the Authority will have to determine tariff for remaining energy purchased from the DISCO(s) on a case to case basis. This is required because the new load factor of the remaining energy will be different from the original load factor (if the BPC is purchasing its total energy from the DISCOs). Therefore, allocation of fixed cost/kWh basis to such consumers based on new load factors will change and as such should be charged to these consumers. Because of this complexity of determining the tariff on case to case basis, which is big hurdle to market opening and many other issues, BPC(s) are generally not allowed to partially buy from DISCO(s) and the generators at the same time. The said practice may be considered for the country; (vi). Dispatch of Generators: - According to the provisions of the NEPRA Act and the relevant rules, all the power plants connected to the grids are to be dispatched centrally. However, by not following the economic dispatch and allowing the self-dispatch will result in increase of total variable cost of the generation (fuel cost), and in-turn higher cost for bilateral contracting parties as well. It is to be considered that with the economic dispatch, the total variable cost of generation is far less than the total variable cost by allowing self-dispatch in a centrally economic dispatch system. In this regard, a study has been carried out based on a simulation tools to quantify the financial impact which comes out in billions of rupees. Therefore, the central dispatch will result in savings of billions of rupees for a bilaterally contracting generator;

- (d). NTDC stated that from the point of view of the system operator, the requirements of the Grid Code including the dispatch coordination of power plants with NPCC may be



ensured. Further, the generation facility may be bound to follow the dispatch instructions of system operator to ensure safety, security, and reliability;

- (e). AEDB supported the proposed modification in the generation licence of PEDO for supplying to different BPC(s) through wheeling under the provisions of the NEPRA Act and the relevant regulations;
- (f). PPDB remarked that the modification envisages supplying electric power to five (5) consumers however, the detail of loads of the same has not been mentioned to qualify as BPC(s). The Authority may consider whether the LPM is to be approved without fulfilling the pre-requisites as given in the relevant regulations pertaining to wheeling or otherwise.

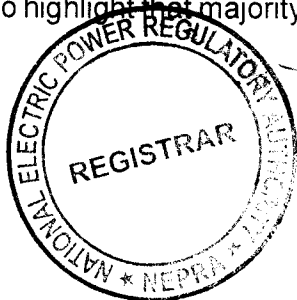
(ii). The Authority considered the above submissions of the stakeholders and in view of the observations of EDGoS, PESCO, CPPAGL, NTDC and PPDB, considered it appropriate seeking perspective of PEDO. In this regard, PEDO on the comments of EDGoS reiterated that the proposed modification will not have any impact on tariff and quality of service. Further, PEDO also confirmed that all the environmental standards will be adhered without any exception.

(iii). About the various observations of PESCO as explained above, PEDO submitted it is fact that the operation of the Pehur Hydel Power Plant is dependent on the releases from the reservoir of the Tarbela Dam. In view of the said, the electric power from the Pehur Hydel Power Plant will not be available round the year on a continuous basis. Accordingly, it has been envisaged that apart from wheeling of electric power from the Pehur Hydel Power Plant, the proposed/prospective BPC(s) will continue to maintain a connection from the utility/PESCO. The said scenario is equivalent of having a Captive Power Plant (CPP) feeding its own industrial unit and in such situations, apart from the CPP the connection from the utility/DISCO serves the requirement of the Industrial Unit/BPC for continuity and the reliability. It is acknowledged that under Section-



22 of the NEPRA Act if a BPC intends to stop purchase of electric power from a distribution company, it is required to convey its intention in writing one (01) year before such stoppage. As explained above, the prospective BPC(s) will not only be having electric power supply through wheeling but will also be maintaining its connection from the concerned utility/distribution Company i.e. PESCO, therefore, the question of such a notice does not arise. About the lower tariff for the BPC(s) having the facility of wheeling and possible resentment of the rest of the consumers of the Gadoon Industrial Estate, PEDO explained that a proper open competitive bidding process was carried out whereby all the industrial units of the said estate were given option. After going through the said process, the BPC(s) for wheeling facility have been selected and therefore there should not be any concern of any of the industrial unit of the Gadoon Industrial estate which could not fulfil the requirements of the bidding etc. About the anomalies highlighted by PESCO in the determination of the UoSC and determining tariff for BPC(s) moving away from the system of the utility or having dual source of supply as hybrid consumers, PEDO submitted that these issues pertain to the determination of tariff and therefore it is up to the Authority to consider the submissions of the PESCO or otherwise. Regarding the observations of PESCO about BPC(s) of having the facility of wheeling as well as having connection from the utility, PEDO explained that the relevant regulations on wheeling allows having connection from the utility in addition to the wheeling arrangement which is actually a necessity for the reasons as explained above. About the issues of doing away with the banking and liquated damages for utility, PEDO submitted that based on the detailed negotiations with PESCO for the EWA, the suggestions have been duly considered and incorporated in the said agreement.

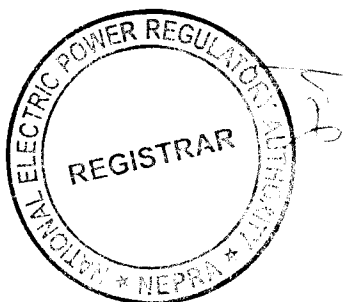
(iv). Regarding the observations of CPPAGL which has issues of (a). Non recovery of cost of technical losses by DISCO(s); (b). Avoiding Cross-Subsidy Charges; (c). Non-recovery of UoSC of NTDC; (d). Non-recovery of Stranded Costs; (e). Hybrid Consumers (BPCs); and (f). Dispatch of Generators. In this regard, PEDO submitted that the existing regulations on wheeling allow to inject energy at one point and withdraw the same amount of energy from any other point on the grid without considering the effect of losses. In consideration of the said, the parties i.e. PEDO and PESCO has signed a EWA. It is pertinent to highlight that majority of industrial consumers in the country have installed CPP



for cost effectiveness, continuity and reliability of supply. The installation of CPP by Industrial units/BPC(s) not only reduces the electricity consumption from the utility/DISCO but also increases overall T&D losses because of increased supply to residential areas with higher losses. In this regard, DISCO(s) do not oppose installation of such CPP(s) but opposes wheeling arrangement on account of T&D losses. Actually, the wheeling arrangement is beneficial for the DISCO(s) as compared to the CPP(s). It is pertinent to mention that CPP(s) do not contribute anything towards the revenue of the DISCO(s) whereas wheeling allows the same in the form of UoSC payable by the BPC(s). In view of the said, PEDO considers that matter of losses as highlighted by PESCO and CPPAGL needs to be considered as an industry-wide issue instead of only restricting it to wheeling. Therefore, any changes in the future wheeling framework must duly consider the BPC(s) having CPP(s) instead of restricting to the issue of wheeling as being agitated by PESCO or CPPAGL.

(v). Regarding the observation of avoiding Cross-Subsidy Charges, PEDO stated that there may be a component of cross-subsidy in the tariff of the industrial consumers/BPC(s) however, it is also important to note that such BPC(s) are also receiving various types of relief (such as the Prime Minister's relief) to industrial consumers in the shape of subsidy in their current electricity bills. Actually, as of date, the cross-subsidy component is currently recovered through subsidy from GoP and not from BPC(s). Furthermore, it is pertinent to highlight that most of the industrial consumers/BPC(s) have gas based CPP(s) and are also enjoying subsidy from GoP as well. In view of the said, wheeling will in fact save subsidy amount from GoP and may be considered in a wider scenario instead of confining it to those industrial units/BPC(s) going for wheeling.

(vi). PEDO, regarding the comment of CPPAGL of non-recovery of UoSC of NTDC, submitted that according to the EWA signed, the industrial Units/prospective BPC(s) will remain consumers of PESCO, therefore, they will continue to pay cost of system fee in the shape of MDI in their electricity bills based on overall peak consumption (regular electricity from PESCO plus wheeled electricity from PEDO). In view of the said, the issue has already been taken care of in the EWA.



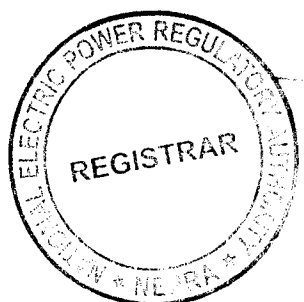
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(vii). With regard to the issue of non-recovery of Stranded Costs due to switching of BPC(s) from the system of DISCO as highlighted by CPPAGL, it was submitted that issue may be related to new unplanned generators interested in wheeling of electricity as it may affect demand and supply forecasts. However, this issue does not relate to Hydel Power Plant of Pehur which is currently supplying electricity to PESCO on take and pay basis under an EPA signed with CPPAGL. The said EPA allowed the option to exit and PEDO has availed the same to enter into bilateral EPA(s) and wheeling arrangement for supplying to BPC(s). In view of the said, the liability on the part of CPPAGL will be reduced and there cannot be any stranded cost impact on CPPAGL because of envisaged wheeling arrangement.

(viii). About the issue of Hybrid Consumers (BPCs) i.e. allowing BPC(s) to have connection from the generation company as well from the DISCO, it was stated that the current regulations on wheeling duly allows the same. In view of the said EWA has been signed and PESCO has agreed to allow electricity from its system to the BPC(s) under the wheeling arrangement.

(ix). Regarding the Dispatch of Generators, PEDO submitted that the Hydel Power Plant of Pehur is already supplying electricity at central dispatch and as per EWA signed, it will continue to operate on central dispatch after wheeling arrangement. It is pertinent to highlight that being a Hydel Power Plant, Pehur is a 'must run' plant.

(x). PEDO on the comments of NTDC confirmed that all the relevant requirements of the Grid Code including dispatch co-ordination of the generation facility with NPCC will be followed in letter and spirit without any exception. Further, the generation facility shall follow the dispatch instructions of system operator to ensure system safety, security and reliability and in this regard the modalities have been made part of the EWA. On the observations of PPDB, it was submitted all the five (05) prospective BPC(s) are eligible for wheeling of electricity as per criteria/benchmark provided in NEPRA Act, the relevant rules and regulations framed thereunder.



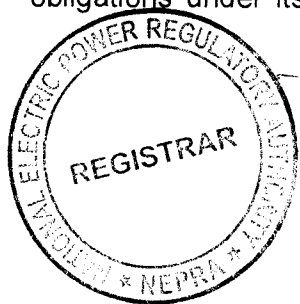
(xi). The Authority considered the above submissions of PEDO and decided to proceed further in the matter as stipulated in the Licensing Regulations and NEPRA Licensing (Generation) Rules, 2000 (the "Generation Rules").

(E). Evaluation/Findings

(i). The Authority examined the entire case in detail including the already granted licence, communicated LPM, comments of stakeholders and rejoinders from the Licensee. In this regard, the Authority observed that it granted a generation licence [No. GL(Hydel)/08/2009 dated November 26, 2009] for its 18.00 MW Hydel Power Plant/generation facility located at Pehur High Level Canal on the right bank of River Indus Downstream of Tarbela reservoir in District Swabi, in the province of Khyber Pakhtunkhwa as explained above. The said licence allowed PEDO supplying to the National Grid through the concerned utility i.e. PESCO.

(ii). According to the communicated LPM under consideration, the company/Licensee/PEDO now instead of supplying to National Grid plans supplying to five (05) Industrial Consumers/BPC(s) located at Gadoon Amazai Industrial Estate as stipulated under Section-22 of the NEPRA Act, under a wheeling arrangement. In this regard, the Authority in terms of Section-26 of the NEPRA Act read with Regulation-10(5) of the Licensing Regulations, is empowered to modify an existing licence of a licensee subject to and in accordance with such further changes as it may deem fit, if in the opinion of the Authority such modification (a). does not adversely affect the performance by the licensee of its obligations; (b). licensee in a manner contrary to the provisions of the NEPRA Act or the rules or regulations made pursuant to it; (c). is or is likely to be beneficial to the consumers; (d). is reasonably necessary for the licensee to effectively and efficiently perform its obligations under the licence; and (e).is reasonably necessary to ensure the continuous, safe and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the licensee.

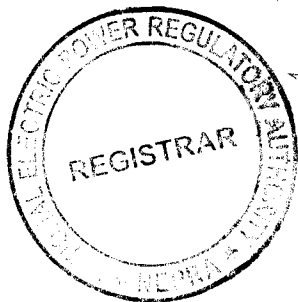
(iii). In consideration of the above, the Authority observes that (a). the proposed LPM will not adversely effect the performance of the licensee of its obligations under its generation licence considering the fact that PESCO and



PEDO have agreed exiting from the current EPA; (b). the LPM will not cause it to act or acquiesce in any act or omission of the licensee in a manner contrary to the provisions of the NEPRA Act or the rules or regulations made pursuant to it; (c). the LPM is likely to be beneficial to the BPC(s) as it will be having continuous supply of reliable electric power from the licensee; (d). the LPM is reasonably necessary for the licensee to effectively and efficiently perform its obligations under the licence; and (e).is reasonably necessary to ensure the continuous, safe and reliable supply of electric power to the BPC(s) keeping in view the financial and technical viability of the licensee.

(iv). In consideration of the above, the Authority has considered the comments of the stakeholders and has observed that PESCO, CPPAGL, NTDC and PPDB have raised certain observations which needs to be addressed. In this regard, the observations of the said stakeholders included (a). Requirement of notice period under Section-22 of the NEPRA Act; (b). discrepancies in the formula for UoSC/Wheeling Charges pertaining to losses; (c). Separate Tariff for BPC(s) completely switching to other source or maintaining two source i.e. DISCO as well as Generation Company; (d). Non recovery of cost of technical losses by Distribution Companies i.e. DISCO(s); (e). Avoiding Cross-Subsidy Charges; (f). Non-recovery of UoSC of NTDC; (g). Non-recovery of Stranded Costs; (h). Hybrid Consumers (BPCs); (i). Dispatch of Generators; (j). following the dispatch instructions of system operator; and (k). the detail of loads of BPC(s) not provided.

(v). In consideration of the above, the Authority has duly considered the submissions of the made by PEDO in the LPM, the rejoinder filed by PEDO and provisions of EWA and will like to address the issues of (a). Requirement of notice period under Section-22 of the NEPRA Act; and (b). the detail of loads of BPC(s). The Authority has observed prospective BPC(s) entering into EPA with PEDO, will maintain the connection with PESCO as envisaged in the relevant regulations. The Authority has duly considered the provisions of Section-22 of the NEPRA Act which envisage BPC switching to a source of electric power other than a DISCO to give a one (01) year notice before such switching. As explained above, the prospective BPC(s) will continue to maintain the connection from PESCO therefore, the question of giving notice as being contemplated by the



concerned utility, does not arise. In this regard, the Authority has observed that PESCO under EWA has already agreed to provide the required electricity to these BPC(s) to cater for the shortfall in supply from Pehur Hydel Power Plant and PESCO can charge these BPC(s) based on its applicable tariff as stipulated in the Regulation-13(2) of the Wheeling Regulations. Therefore, the contention of PESCO has no bearing on the case.

(vi). About the observation of PPDB that the detail of loads of BPC(s) has not been provided, the Authority hereby confirms that PEDO has submitted copies of the EPA signed with prospective BPC(s) providing all the necessary details which are in line with the relevant provisions of the NEPRA Act and relevant rules and regulations framed thereunder and the determinations of the Authority made earlier in similar cases. Further, to the said, the Authority has duly considered the other observations of PESCO and CPPAGL specifically (a). discrepancies in the formula for UoSC/Wheeling Charges pertaining to losses; (b). Separate Tariff for BPC(s) completely switching to other source or maintaining two source i.e. DISCO as well as Generation Company; (c). Non recovery of cost of technical losses by Distribution Companies i.e. DISCO(s); (d). Avoiding Cross-Subsidy Charges; (e). Non-recovery of UoSC of NTDC; (f). Non-recovery of Stranded Costs; (g). Hybrid Consumers (BPCs); (h). Dispatch of Generators; and (i). following the dispatch instructions of system operator. The Authority has observed that DISCO(s) and CPPAGL had raised same observations when cases for wheeling in the matter of Sanjwal Solar (Pvt.) Limited and Fatima Energy Limited were being considered. In view of the importance of the matter and considering the sector-wise implication of the issue, the Authority has already initiated a consultative process for seeking comments of all the relevant stakeholders to forge a robust model on wheeling whereby not only the genuine concerns of the relevant stakeholders are addressed but also wheeling becomes a reality as being done in other countries worldwide. In this regard, the Authority is expected to give its determination in the coming days thereby addressing all the above mentioned concerns which will be binding on the stakeholders including the generation companies (including PEDO), DISCO(s), CPPAGL and the prospective BPC(s). In view of the said, the Authority considers that all the observations of the stakeholders as explained above stands suitably addressed and resolved.

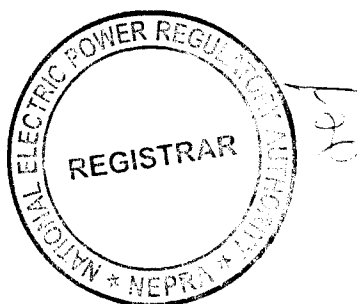


(vii). As explained above, PEDO has already submitted a copy of the EWA signed with PESCO in terms of the requirement of Regulation-7 of the Wheeling Regulations for the record of the Authority. Further, PEDO has also submitted the details of the negotiated tariff agreed with the prospective BPC(s) seeking approval of the same as stipulated in Rule-6(1) of the Generation Rules. In consideration of the said, the Authority hereby clarifies that according to the relevant regulation there is only a requirement of submission of the EWA, accordingly the Authority acknowledges the receipt of the same as stipulated in the relevant regulations. Regarding the approval of the tariff between PEDO and the BPC(s), the Authority considers it a bilateral issue which has been arrived through a due diligence/competitive process carried out by PEDO and the same does not affect any other consumer or third party. Therefore, in this particular case, the Authority considers it appropriate allowing PEDO to charge its BPCs the mutually agreed rate in terms of relevant provisions of the Generation Rules.

(viii). In consideration of the above, the Authority also allows PESCO to recover the UoSC under EWA for electricity to be wheeled from Pehur Hydel Power Plant as envisaged in the determination of the Authority for consumer end tariff applicable now as well as amended/approved from time to time. Further, as given in EWA, PESCO shall purchase any un-wheeled electric power supplied by the generation facility at rates/charges determined by the Authority.

(F). Approval of LPM

(i). In view of the above, the Authority is satisfied that the Licensee has complied with all the requirements of the Licensing Regulations pertaining to the modification. Therefore, the Authority in terms Section-26 of the NEPRA Act read with Regulation-10(11) of the Licensing Regulations approves the communicated LPM without any changes.

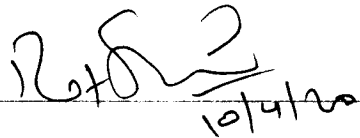


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(ii). Accordingly, the Generation Licence [No. GL(Hydel)/08/2009 dated November 26, 2009] granted to PEDO is hereby modified. The changes made in the generation licence are attached as annexure to this determination. The approval of the LPM is subject to the provisions contained in the NEPRA Act, relevant rules framed there under, terms & conditions of the generation licence and other applicable documents.

Authority:

Engr. Rafique Ahmed Shaikh
(Member)


10/4/20

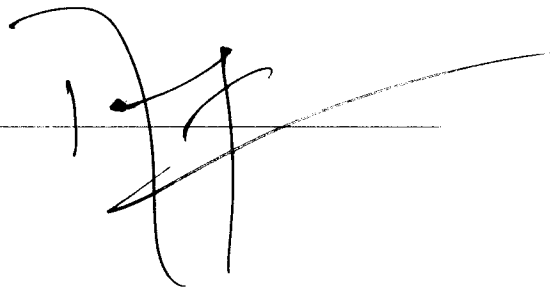
Engr. Rehmatullah Baloch
(Member)

Did Not Attend

Saif Ullah Chattha
(Member)

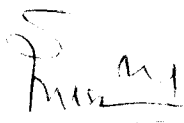



Engr. Bahadur Shah
(Member/Vice Chairman)



Engr. Tauseef H. Farooqi
(Chairman)




27 04 20

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

Islamabad – Pakistan

GENERATION LICENCE

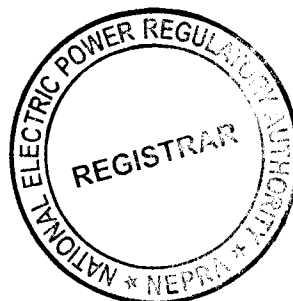
GL(HYDEL)/08/2009

In exercise of the powers conferred under Section-26 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, as amended or replaced from time to time, the Authority hereby modifies the Generation Licence [no. GL(HYDEL)/08/2009 dated November 26, 2009 expiring on November 25, 2039] granted to Pakhtunkhwa Energy Development Organization (PEDO), to the extent of changes mentioned hereunder:-

- (i). Changes made in **Articles** of the Generation Licence are attached as **Revised/Modified Articles** of Generation Licence;
- (ii). Changes made in **Schedule-I** of the Generation Licence are attached as **Revised/Modified Schedule-I**;
- (iii). Changes made in **Schedule-II** of the Generation Licence are attached as **Revised/Modified Schedule-II**; and
- (iv). Addition of new **Second Tier Supply Authorization**.

This **Modification-I** is given under my hand on 27th day of **April Two**
Thousand & Twenty

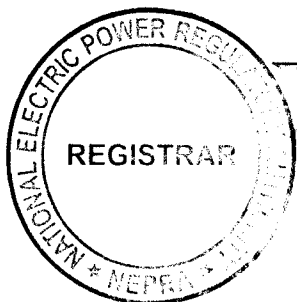

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Registrar



Article-1
Definitions

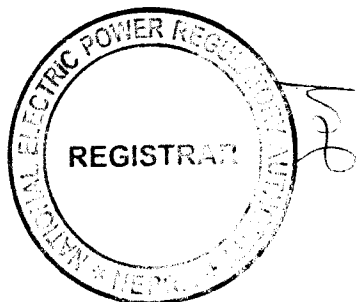
1.1 In this licence

- (a). "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 as amended or replaced from time to time;
- (b). "Applicable Documents" mean the Act, the rules and regulations framed by the Authority under the Act, any document or instrument issued or determinations made by the Authority under any of the foregoing or pursuant to the exercise of its powers under the Act, the Grid Code, the applicable Distribution Code, Commercial Code if any, or the documents or instruments made by the Licensee pursuant to its generation licence, in each case of a binding nature applicable to the Licensee or, where applicable, to its affiliates and to which the Licensee or any of its affiliates may be subject;
- (c). "Applicable Law" means the Act, relevant rules and regulations made there under and all the Applicable Documents;
- (d). "Authority" means the National Electric Power Regulatory Authority constituted under Section-3 of the Act;
- (e). "Bulk Power Consumer (BPC)" means a consumer which purchases or receives electric power, at one premises, in an amount of one (01) megawatt or more or in such other amount and voltage level and with such other characteristics as the Authority may specify and the Authority may specify different amounts and voltage levels and with such other characteristics for different areas;
- (f). "Bus Bar" means a system of conductors in the generation facility of the Licensee on which the electric power from all the generators is collected for supplying to the Power Purchaser or Bulk Power



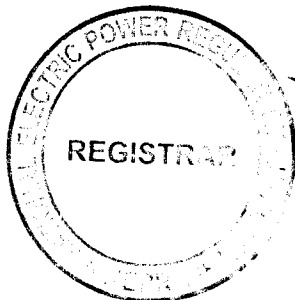
Purchaser;

- (g). "Commercial Code" means the National Electric Power Regulatory Authority (Market Operator Registration, Standards and Procedure) Rules, 2015 as amended or replaced from time to time;
- (h). "Commercial Operations Date (COD)" means the day immediately following the date on which the generation facility/Hydel Power Plant of the Licensee is commissioned;
- (i). "CPPA-G" means Central Power Purchasing Agency (Guarantee) Limited or any other entity created for the like purpose for functioning as market operator;
- (j). "Distribution Code" means the distribution code prepared by the concerned XW-DISCO and approved by the Authority, as it may be revised from time to time with necessary approval of the Authority;
- (k). "Distribution Company" means "a company to whom the Authority has granted a distribution licence under Section 20-21 of the Act and engaged in the distribution of electric power;
- (l). "Energy Purchase Agreement (EPA)" means the energy purchase agreement, entered or to be entered into by and between the Power Purchaser(s) and the Licensee, for the purchase and sale of electric energy generated by the generation facility of the Licensee, as may be amended by the parties thereto from time to time;
- (m). "Energy Wheeling Agreement" means the energy wheeling agreement, entered or to be entered into by and between PESCO or holder of a licence under the Act and the Licensee, for the Wheeling of electrical energy generated by the generation facility, as may be amended by the parties thereto from time to time;



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- (n). "Generation Rules" mean the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000 as amended or replaced from time to time;
- (o). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;
- (p). "Licensee" means Pakhtunkhwa Energy Development Organization (PEDO) and its successors or permitted assigns;
- (q). "Licensing Regulations" mean the National Electric Power Regulatory Authority Licensing (Application & Modification Procedure) Regulations, 1999 as amended or replaced from time to time;
- (r). "NTDC" means National Transmission & Despatch Company Limited and its successors or permitted assigns;
- (s). "Power Purchaser" means any person or registered entity or licence holder which will be purchasing electric power from the Licensee, pursuant to an EPA for procurement of electric energy;
- (t). "PESCO" means Peshawar Electric Supply Company Limited and its successors or permitted assigns;
- (u). "Service Territory" means the service territory as defined in the distribution licence of a Distribution Company including any XW-DISCO or holder of a licence under the Act;
- (v). "Wheeling" means supplying/injecting electrical energy by the Licensee into the Grid System of PESCO, at one point and receiving the same amount at any other location located in the same Service Territory of PESCO upon payment of use of system charges as determined by the Authority; and



(w). "XW-DISCO" means an Ex-WAPDA distribution company engaged in the distribution of electric power".

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

Article-2
Applicability of Law

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

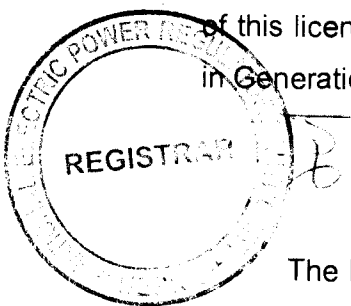
Article-3
Generation Facilities

The location, size (capacity in MW), technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the generation facility of the Licensee are set out in Schedule-I of this licence. The net capacity of the generation facility of the Licensee is set out in Schedule-II hereto.

Article-4
Term of Licence

4.1 This licence is effective from the original date of its issuance i.e. November 26, 2009 and has the term of thirty (30) years from the date of its issuance subject to the provisions of Section-14B of the Act.

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



Article-5
Licence fee

The Licensee shall pay to the Authority the licence fee as stipulated in the National Electric Power Regulatory Authority (Fees) Rules, 2002 as amended or replaced from time to time.

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Article-6
Tariff

6.1 The Licensee shall charge CPPA-G or PESCO only such tariff which has been determined, approved or specified by the Authority in terms of Rule-6 of the Generation Rules.

6.2 The Licensee is allowed to charge the BPC(s) such tariff which has been agreed between the Licensee and the BPC(s), pursuant to the Energy Purchase Agreement(s).

Article-7
Competitive Trading Arrangement

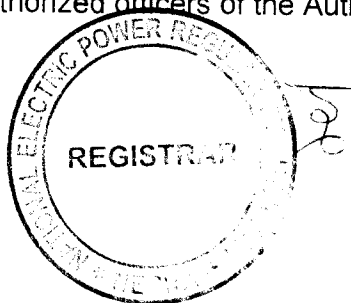
7.1 The Licensee shall participate in such manner as may be directed by the Authority from time to time for development of a Competitive Trading Arrangement.

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

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

Article-8
Maintenance of Records

For the purpose of sub-rule (1) of Rule 19 of the Generation Rules, copies of records and data shall be retained in standard and electronic form and all such records and data shall, subject to just claims of confidentiality, be accessible by authorized officers of the Authority.



Article-9
Compliance with Performance Standards

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

Article-10
Compliance with Environmental & Safety Standards

10.1 The generation facility of the Licensee shall comply with the environmental and safety standards as may be prescribed by the relevant competent authority from time to time.

10.2 The Licensee shall provide a certificate on a bi-annual basis, confirming that the operation of its generation facility is in line with environmental standards as prescribed by the relevant competent authority.

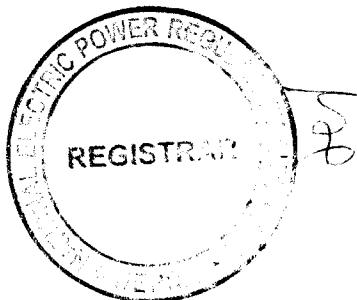
Article-11
Power off take Point and Voltage

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

Article-12
Provision of Information

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

12.2 The Licensee shall be subject to such penalties as may be specified in the relevant rules made by the Authority for failure to furnish such information as may be required from time to time by the Authority and which is or ought to be or been in the control or possession of the Licensee.



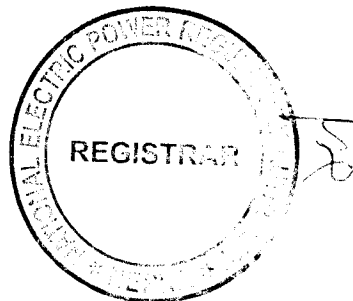
Article-13
Compliance with Applicable Law

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

Article-14
Corporate Social Responsibility

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

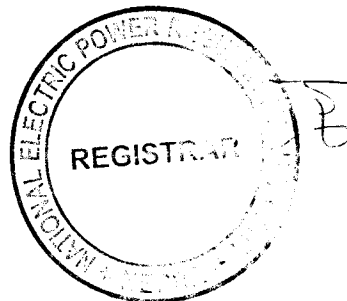
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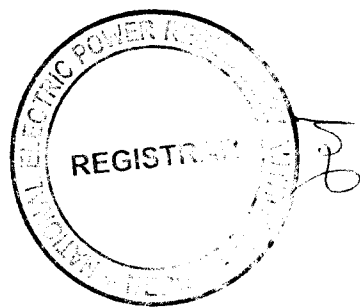
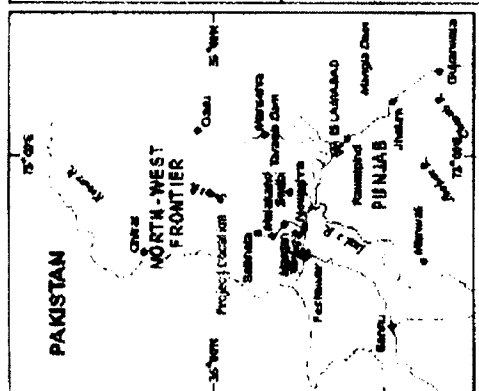
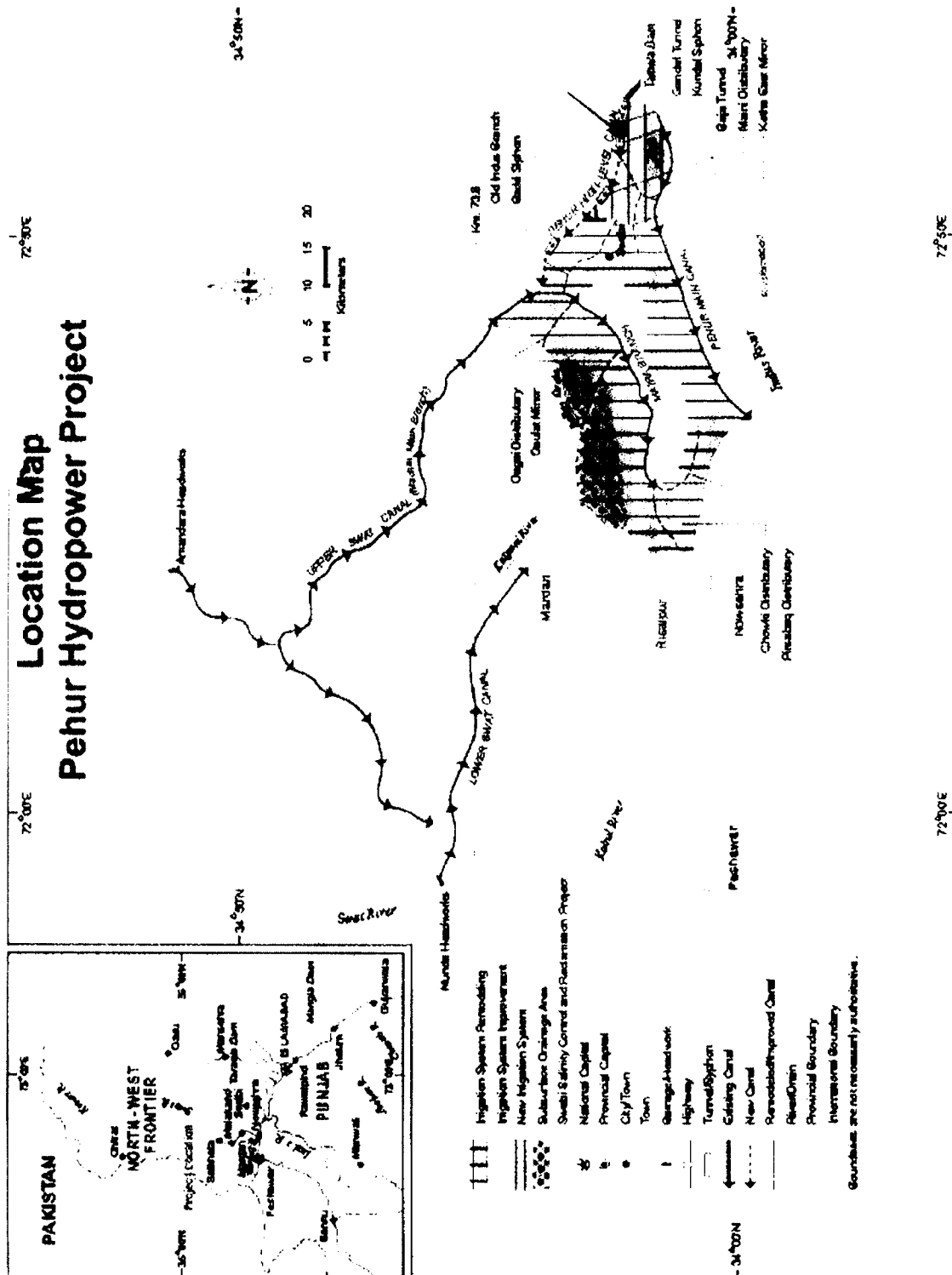
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Revised/Modified
SCHEDULE-I

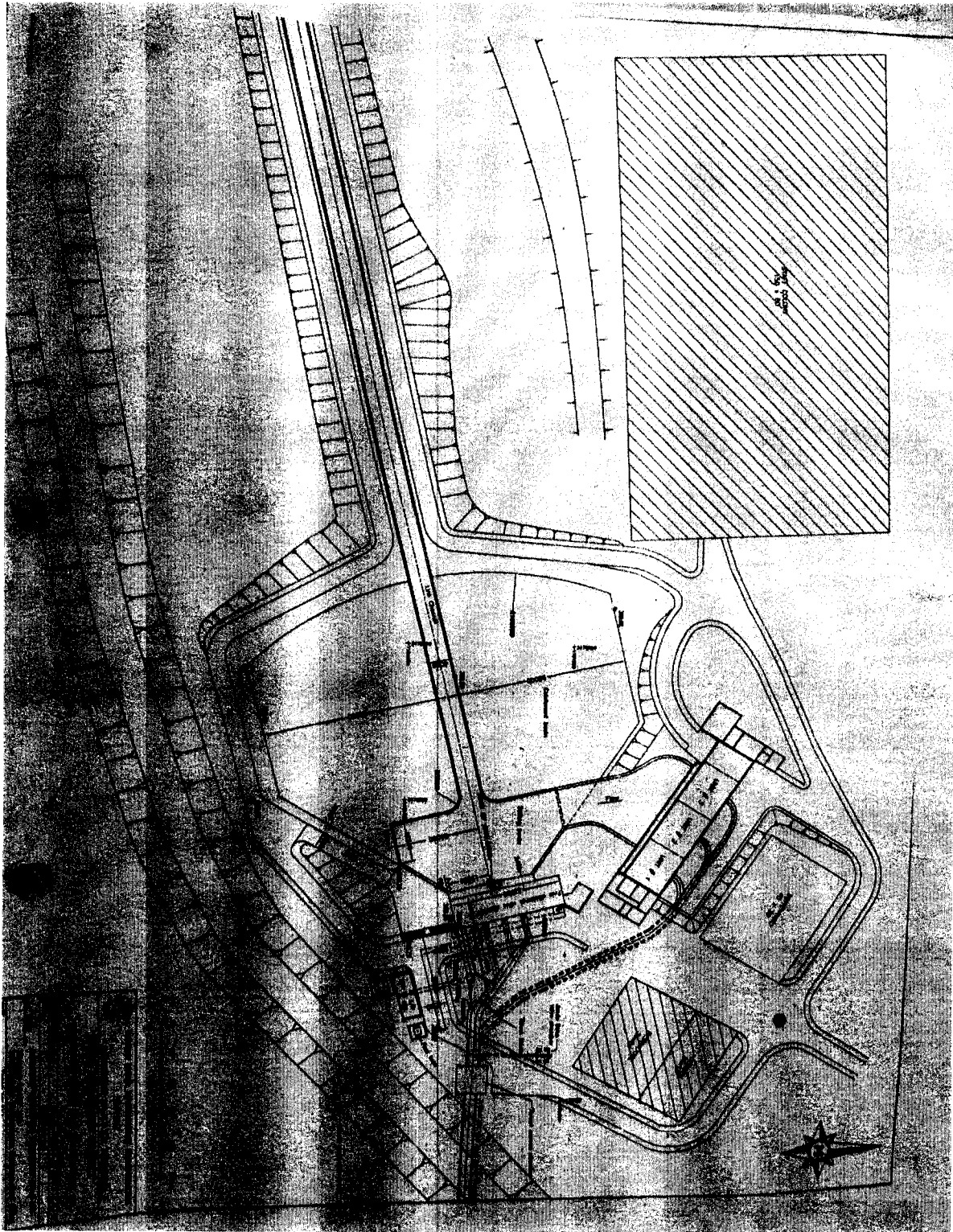
The Location, Size (i.e. Capacity in MW), Type of Technology, Interconnection Arrangements, Technical Limits, Technical/Functional Specifications and other details specific to the Generation Facilities of the Licensee are described in this Schedule.



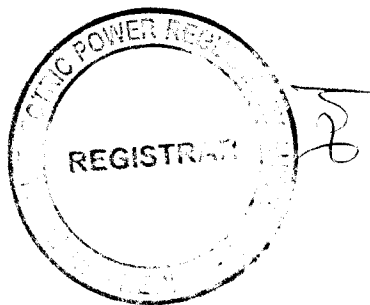
Location of the Generation Facility/Hydel Power Plant of PEDO



Layout
of the Generation Facility/Hydel Power
Plant of PEDO



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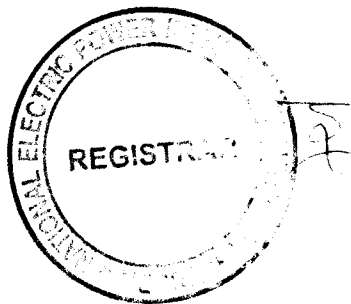


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Interconnection Arrangement/Transmission Facilities
for Dispersal of Power from Generation Facility/
Hydel Power Plant of PEDO

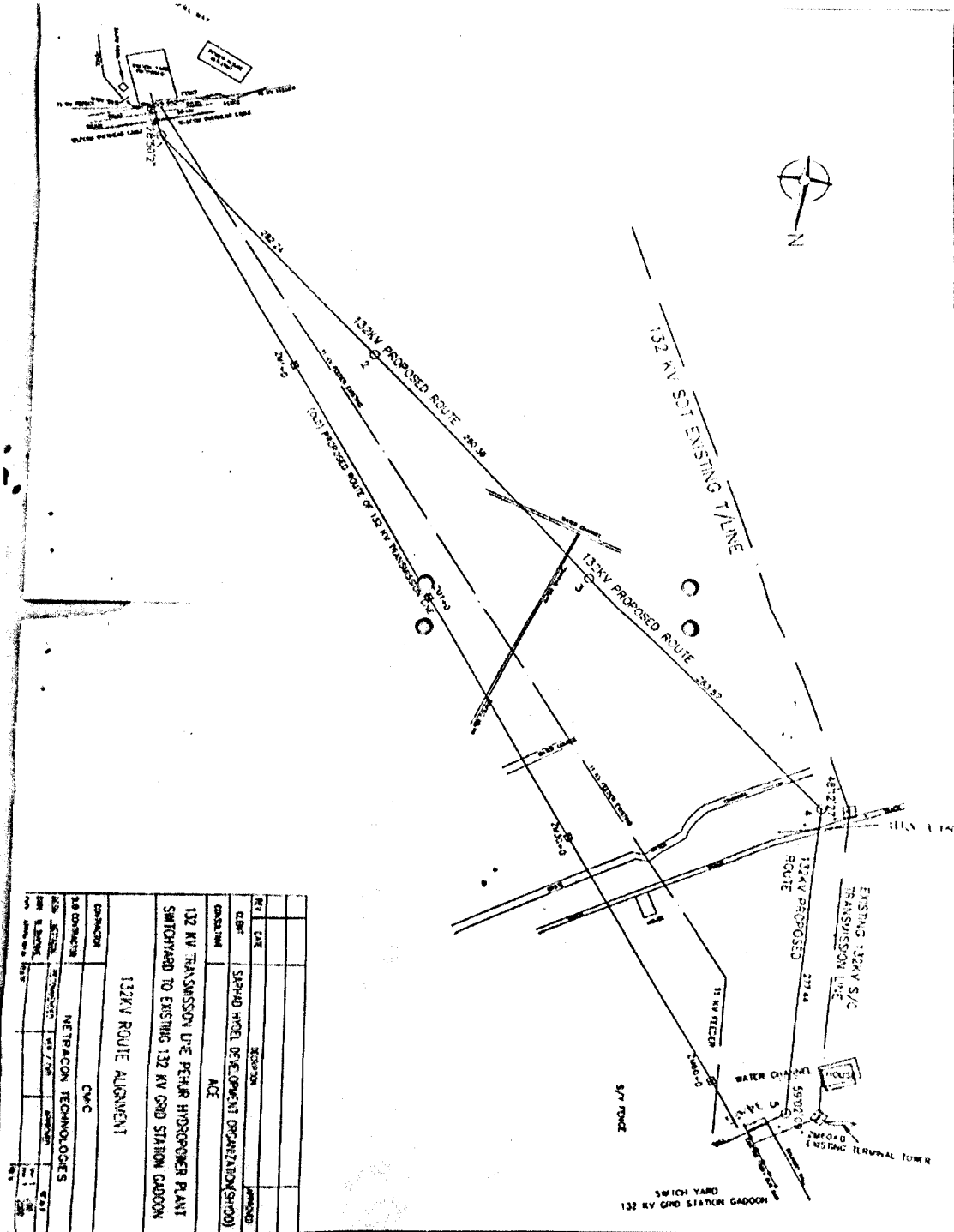
The power generated by the Pehur Hydel Power Plant of PEDO shall be dispersed to 132 KV Gadoon Amazai Grid Station of PESCO through a 132 KV S/C Transmission Line for supplying to different BPC(s) by wheeling through the network of PESCO as indicated/included in the Second Tier Supply Authorization attached herewith.

(2). Any change in the final Interconnection and Transmission Arrangement(s), for the dispersal of power other than the above, as agreed by the Licensee, BPCs and PESCO shall be communicated to the Authority in due course of time.

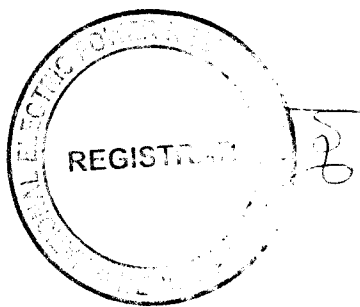


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Schematic Diagram
for Interconnection/Transmission Arrangement for
Dispersal of Power from Generation Facility/
Hydel Power Plant of PEDO



RT	C/E	132KV	APPROVED
OWNER		SARHAD HYDEL DEVELOPMENT ORGANIZATION(SHRO)	
DESIGNER		ACE	
132 KV TRANSMISSION LINE PEHUR HYDROPOWER PLANT SWITCHYARD TO EXISTING 132 KV GND STATION GADDOON			
132KV ROUTE ALIGNMENT			
CONTRACTOR	C/M/C		
DESIGNER	NETRIFACON TECHNOLOGIES		
DATE	15/07/2022	SCALE	1:1000
BY	15/07/2022	DATE	15/07/2022
CHKD	15/07/2022	DATE	15/07/2022
APPD	15/07/2022	DATE	15/07/2022



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Details
of the Generation Facility/Hydel Power
Plant of PEDO

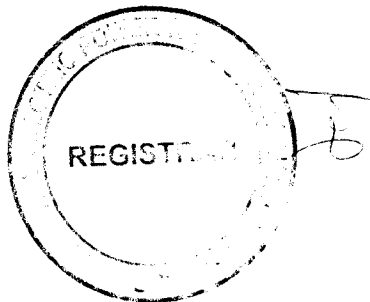
(A). General Information

(i).	Name of the Licensee/ Company	Pakhtunkhwa Energy Development Organization (PEDO)
(ii).	Registered/Business Office of the Licensee/ Company	PEDO House, 38-B2, Phase-V, Hayatabad, Peshawar
(iii).	Location of the Generation Facility	Pehur High Level Canal, Indus River (Right Bank) downstream of Tarbela reservoir, District Sawabi, in the Province of Khyber Pakhtunkhwa
(iv).	Type of Generation Facility	Hydropower Plant – Canal Fall/Run of River

(B). Plant Configuration

(i).	Size/Installed Capacity (Gross) of the Generation Facility	18.00 MW
(ii).	Plant Type	Canal Fall/Run of River
(iii).	Water Source	Pehur High Level Canal
(iv).	Type of Technology	Francis Turbines
(v).	Number of Units & Size (MW)	3 x 6.00 MW

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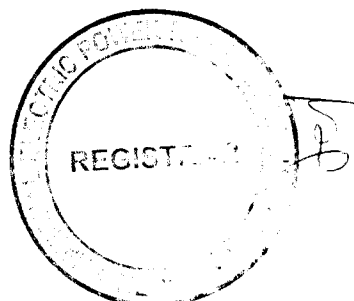
(vi).	Turbine Make & Model	Unit-1 & 2	Unit-3
		Hangzhou Equipment Works (HEE China)/Model-HLA-384-WJ-114	Hangzhou Equipment Works (HEE China)/Model-HLA-551-WJ551
(vii).	Commissioning and Commercial Operation Date (COD)	Commissioning	COD
		July 03, 2009	September 01, 2009

(C). Plant Head & Tunnel Details

(i).	Head	Maximum Net Head	85.00 meters
		Minimum Net Head	29.00 meters
		Rated Head	44 meters~68 meters

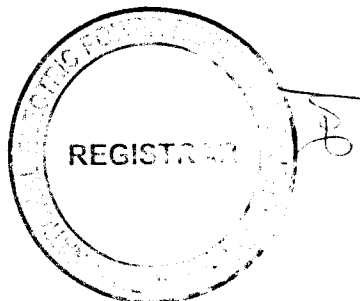
(D). Plant Characteristics

(i).	Generation Voltage	11 KV
(ii).	Frequency	50 Hz
(iii).	Power Factor	0.85
(iv).	Automatic Generation Control	Yes



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(vi).	Time required to Synchronize to Grid and loading the Complex to full load.	5 minutes
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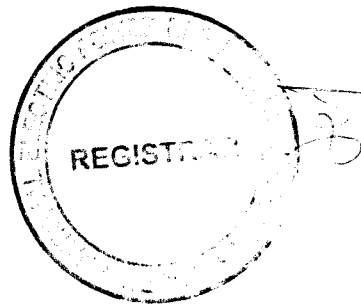


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Revised/Modified
SCHEDULE-II

The Total Installed Gross Capacity (MW), De-Rated Capacity at Reference Site Conditions (MW), Auxiliary Consumption (MW) and the Net Capacity at Reference Site Conditions (MW) of the Generation Facility of Licensee are given in this Schedule



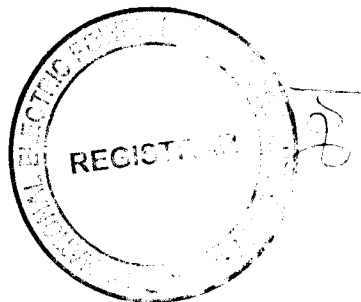
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SCHEDULE-II

(1).	Installed Capacity Gross ISO	18.00 MW
(2).	De-Rated Capacity of the Generation Facility at Mean Site Conditions	18.00 MW
(3).	Auxiliary Consumption of the Generation Facility	0.10 MW
(4).	Net Capacity of the Generation Facility at Mean Site Conditions	17.90 MW

Note

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



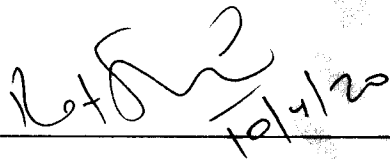
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Authorization
by National Electric Power Regulatory Authority (NEPRA) to
Pakhtunkhwa Energy Development Organization (PEDO)
For its Pehur Hydel Power Plant

NEPRA GENERATION LICENCE No. GL(Hydel)/08/2009
For
Sale to Bulk Power Consumer(s)

Pursuant to Section-22 of the Act and Rule-7 of the NEPRA Licensing (Generation) Rules-2000, the Authority hereby authorize Pakhtunkhwa Energy Development Organization (PEDO/the "Licensee") to engage in second-tier supply business, limited to the following consumers:-

- (a). AJ Textile Mills Limited;
- (b). Cherat Cement Limited;
- (c). Cherat Packaging Limited;
- (d). Gadoon Textile Mills Limited; and
- (e). Premier Chipboard Industries (Private) Limited.



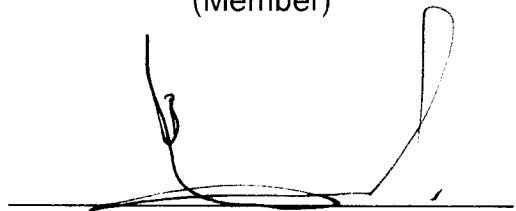
Rafique Ahmed Shaikh
(Member)



Saif Ullah Chattha
(Member)

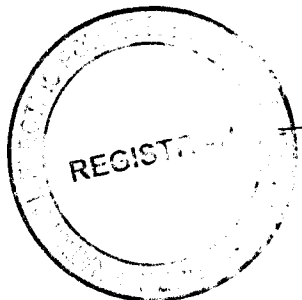
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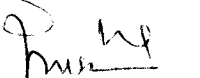
Rehmatullah Baloch
(Member)



Bahadur Shah
(Member/Vice Chairman)


Tauseef H. Farooqi
(Chairman)




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