



Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/DG (Lic)/LAT-08/36201-10

November 08, 2023

Ms. Saniya Awais
Chief Executive Officer
Punjab Grid Company Limited
1st Floor Irrigation Secretariat,
Old Anarkali Lahore

Subject: Grant of Transmission Licence No. PGCL/03/2023
Licence Application No. LAT-08
Punjab Grid Company Limited (PGCL)

Reference: Your letter No. nil dated 23.01.2023

Enclosed please find herewith Determination of the Authority in the matter of application of Punjab Grid Company Limited (PGCL) for the grant of Transmission Licence along with Transmission Licence No. PGCL/03/2023 annexed to this determination granted by the National Electric Power Regulatory Authority (NEPRA) to PGCL to act as Provincial Grid Company for the province of Punjab, pursuant to Section 18A of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) / (NEPRA Amended Act 2018).

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

Enclosure: As Above

(Iftikhar Ali Khan)

Copy to:

1. Secretary, Power Division, Ministry of Energy, 'A' Block, Pak Secretariat, Islamabad
2. Secretary, Energy Department, Government of Punjab, EFU House, 8th Floor, 6-D Jail Road, Lahore
3. Managing Director, National Transmission & Despatch Company (NTDC), 414 WAPDA House, Lahore
4. Chief Executive Officer, CPPA(G), 73 West, Shaheen Plaza, A.K. Fazl-ul-Haq Rd, Blue Area, Islamabad
5. Chief Executive Officer, Islamabad Electric Supply Company, IESCO Head Office Street 40, Sector G-7/4, Islamabad
6. Chief Executive Officer, Lahore Electric Supply Company, 22-A, Queen Road, Lahore
7. Chief Executive Officer, Faisalabad Electric Supply Company (FESCO), Abdullahpur, Canal Bank Road, Faisalabad
8. Chief Executive Officer, Multan Electric Power Company (MEPCO), MEPCO Headquarters, Khanewal Road, Multan
9. Director General, Environmental Protection Department, Government of the Punjab, National Hockey Stadium, Ferozpur Road, Lahore

National Electric Power Regulatory Authority
(NEPRA)

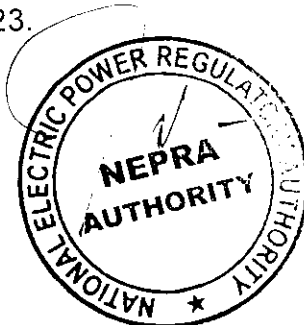
Determination of the Authority in the Matter of
Application of Punjab Grid Company Limited for the Grant of
Licence for Provincial Grid Company

November 08th, 2023
Case No. LAT-08

(A). Filing of Application

(i). Punjab Grid Company Limited (PGCL) submitted an application on January 23, 2023 for the grant of Transmission Licence as a Provincial Grid Company (PGC) in terms of Section-18A of Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act").

(ii). The Registrar examined the submitted application in terms of the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 (the "Licensing Regulations") to confirm the compliance of the said regulations. The Registrar found the application deficient in terms of the Licensing Regulations and directed PGCL to submit the missing information and documentations. Accordingly, PGCL submitted a detailed reply to the queries that the Registrar has raised and submitted the missing information/documentation on February 20, 2023. The Registrar submitted the application of PGCL for the consideration of the Authority to decide the registration/admission of the application or otherwise. The Authority considered the matter on February 20, 2023 and found the form and content of the application in compliance with the provisions of the NEPRA Act and the Licensing Regulations and decided to admit/register the application. The Authority also approved a notice of registration/admission to be published in the press for inviting comments of the general public, interested and affected persons in the matter. Accordingly, the said notices were published in one (01) Urdu and one (01) English newspapers on April 07, 2023.

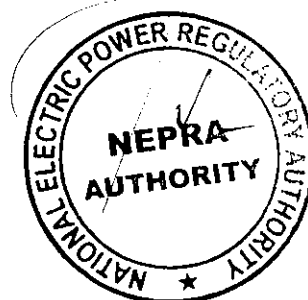


(iii). In addition to the above, the Authority also approved a list of stakeholders for seeking their comments for assistance of the Authority in the matter. Accordingly, letters were sent to different stakeholders as per the approved list on April 07, 2023, soliciting their comments for assistance of the Authority.

(B). Comments of Stakeholders

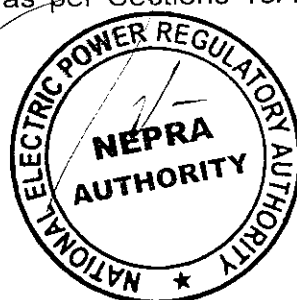
(i). In reply to the above, the Authority received comments from nine (09) stakeholders which included Board of Investment (BoI), Ministry of Law & Justice (MoL&J), Gujranwala Electric Power Company Limited (GEPCO), Faisalabad Electric Supply Company Limited (FESCO), Lahore Electric Supply Company Limited (LESCO), Multan Electric Power Company Limited (MEPCO), Punjab Industrial Estate Development & Management Company (PIED&MC), Energy and Power Department of Govt. of Khyber Pakhtunkhwa (E&PDGoKPK) and Ministry of Planning, Development & Special Initiatives (MoPD&SI). The salient points of the comments offered by the said stakeholders are summarized below: -

- (a). BoI in its comments submitted that the energy sector is one of the priority sectors of the Government to cater the short-fall of electricity in the country. It is understood that an affordable and smooth supply of energy is the backbone for industrial growth in the country. The grant of transmission licence to PGCL is purely a technical matter however, BoI is of the view that the issue may be considered keeping in view the public interest and relevant laws/rules in vogue;
- (b). MoL&J while giving its point of view stated that the Article 157(2) of the 1973 Constitution of Pakistan, provides that "...the Government of a Province may lay transmission lines for use within the Province...". The aforesaid provision has been replicated in

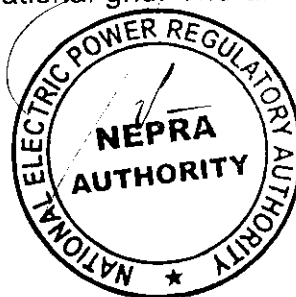


Section-7(4) of the NEPRA Act, which is the primary legislation to regulate the generation, transmission and distribution of electric power in the country. The Section-16 of the NEPRA Act requires a licence from the Authority in order to engage in the transmission of electric power. Under Section-18A of the Act *ibid.*, "...the Authority may, subject to the provisions of the Act and after such enquiry as it may deem appropriate, grant a licence authorizing a company owned by a Provincial Government to engage in the transmission of electric power within territorial limits of such Province, subject to such conditions as it may impose...". It is stated in the application of the PGCL that the company is owned by the Government of the Punjab (GoPb) for which it has provided the requisite information/documentation demonstrating that it is owned by the above provincial Govt.. In view of the above, MoL&J is of the view that the powers of the Authority to grant a transmission licence to a grid company stated to be owned by the Provincial Government is accordance with the Constitution and the relevant law. However, it is for the Authority to evaluate that the application of the company is the "Provincial Grid Company (PGC)" and convince itself regarding compliance with other provisions of the NEPRA Act and rules and regulations thereunder;

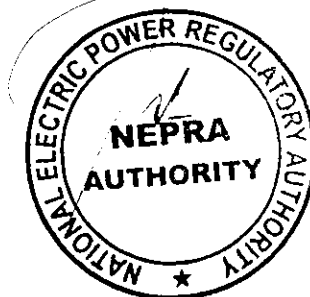
- (c). GEPCO remarked that the required rules pertaining to the "Eligibility Criteria" have not yet been prescribed. The application under consideration is apparently an academic attempt to utilize the opportunity available as per Sections-18A & 18B of



the NEPRA Act. The application of PGCL is inherently flawed, factually contradictory and conceptually confused document, thus merits to be returned for resubmission after due corrections for some of the reasons as explained. The application of PGCL at Clause-II(l)(i) has outlined its primary operations, which include acting as the System Operator and scheduling and dispatching of generation plants. The said functions are in conflict with the NEPRA Act and Regulations. The Section-23G(1) of the NEPRA Act provides that "...only one such licence shall be granted at any one time...". It may further be noted that Section-14B(4) & 14D(2) of the NEPRA Act, require the generators to make the generation facility available, inter alia, for non-discriminatory, economic dispatch and operation of the national transmission grid and connected facilities. Accordingly, the System Operations, including Dispatch of Power Plants, cannot be entrusted to PGC. In its application, PGCL has submitted that the scope of functions for PGC as contained in the NEPRA Act clearly establishes that the Applicant/Petitioner will not be expected to carry out dispatch of generation facilities in relation to the projects of national grid, a function presently under the domain of National Grid Company (NGC)/National Transmission and Depstach Company Limited-NTDC (as long as it is responsible for system operation) and later on the System Operator. The above statement attempts to restrict the "dispatch" role of the System Operator (or currently the NTDC) to the projects connected to national grid. The understanding is not



in line with provisions of Section-18B and Section-23G of the NEPRA Act. The Section-18B of the NEPRA Act provides for the responsibilities of PGC whereas the Section-23G describes the role of the System Operator. The limitations and constraints of NTDC and network of DISCO(s) stated in the application, are general in nature, mostly baseless and without any evidence. PGCL may be asked to provide details of the Renewable Energy (RE) and others projects delayed due to the alleged inaction on the part of DISCO(s) and their current status. PGCL has alleged that the political interference has resulted in unprofessional extension in the L.T. network(s). In view of the said, PGCL be asked to provide the evidence to the said statement and provide the methodology for a public sector entity i.e. PGC to handle the above mentioned political interference for which the DISCO(s) have allegedly failed to handle professionally. PGCL has failed to provide any project of its own rather it has opted to conveniently pickup any of the "economical" projects already on the approved investment plan list of NTDC/DISCO(s). In this regard, it is highlighted that projects for TL(s) are required to be carried out through relevant software e.g. PSSE, etc. which is missing in this case. PGCL has also failed to provide a professionally designed/formulated "project selection criteria", instead it has conveniently chosen to encroach the already planned projects of NTDC/DISCO(s) at its own discretion without any coordination with and/or consent from the relevant stakeholders. Further,



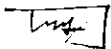
potential projects of PGCL are identical to those in the STG Program of DISCO(s) due to which there is a serious question whether PGCL can undertake these projects or not? The parameters and prerequisites regarding consultations/cooperation with DISCO(s) should be specified. Further, adequate details of primary resources, i.e. manpower (technical, administrative, support, Linemen, Assistant Linemen, Foremen, etc.) to demonstrate its capacity to undertake the huge responsibility of PGC, have not been provided. The application lacks a strong foundation and contains a huge amount of irrelevant details accordingly, the instant application is requested to be returned without any further action with the directions to submit comprehensive and relevant documentation as required under the NEPRA Act, Rules and Regulations;

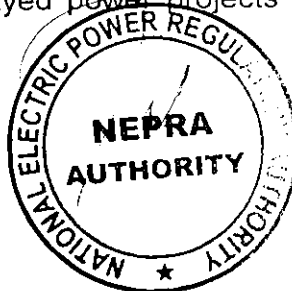
- (d). FESCO expressed that the Authority can grant a Licence to a company of the provincial Government authorizing it to engage in transmission of electric power within the territorial limits of such province as stipulated under Section-18A of the NEPRA Act. In this regard, it is pertinent to mention that the Authority has already granted the required licences to two different companies of the provinces of Sindh and Khyber Pakhtunkhwa. In this context while considering and before granting the Licence to PGCL, the Authority may consider (a). Whether the Federal Govt. has framed the required Rules on the Eligibility Criteria to prescribe the minimum solvency requirements and the minimum technical and human



resource requirements in terms of Section-18A(2) of the NEPRA Act or otherwise? (b). NGC/NTDC is solely responsible for the centralized Transmission System Expansion Plan (TSEP) in terms of clause 5.2.2 of National Electricity Policy, 2021 (the "NEP-2021"), therefore, a comprehensive strategy in this regard may be formulated with all the Licensees i.e. NGC, PGC(s) and SPTL(s). It also needs to be ascertained whether there will be any impact on the already granted licence of NTDC if the Authority decides to grant PGCL a Licence for PGC.

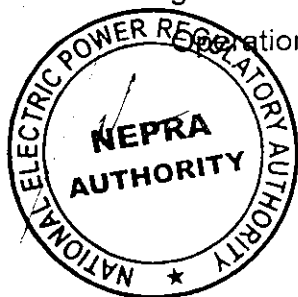
- (e). LESCO in its comments stated that the application submitted has included certain documents unnecessarily which have made it very lengthy, difficult to comprehend and *prima facie* lacks completeness. According to Section- 18A of amended NEPRA Act, the Federal Govt. shall prescribe the Eligibility Criteria for which the latest status is not available. The application has highlighted certain areas/locations where the GoPb is facing limitations and constraints in the Secondary Transmission Network of LESCO in evacuating potential RE and conventional power plants but the same has not been precisely mentioned. Further, PGCL has also not mentioned where it is alleged that due to political interference, the L.T. network is extended un-professionally. In this regard, LESCO has contested how the above matter is linked with the justification of creating a company for carrying out the transmission business? PGCL in its application has alleged that NTDC has either ignored or delayed power projects of the provincial



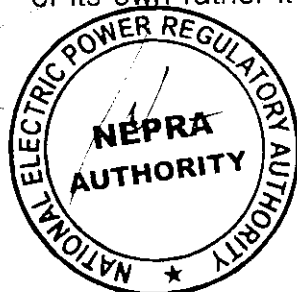


Govt. from Indicative Generation Capacity Expansion Plan (IGCEP) which the Authority may look into. The Authority should look into the necessary/ available human resource requirements, to execute the required jobs as the same is not mentioned in the application. The review of the application reveals that PGCL has requested for an exclusive licence and it is not clear how the same is admissible or otherwise;

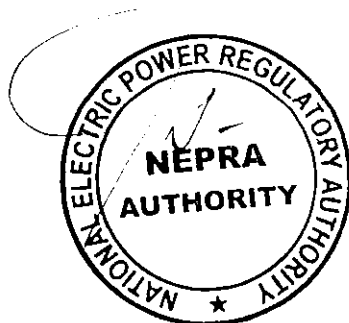
- (f). MEPCO remarked that the required rules pertaining to the "Eligibility Criteria" have not yet been prescribed. The application under consideration is apparently an academic attempt to utilize the opportunity available as per Sections-18A & 18B of the NEPRA Act. The application of PGCL is inherently flawed, factually contradictory and conceptually confused document, thus merits to be returned for resubmission after due corrections for some of the reasons as explained. The application of PGCL at Clause-II(I)(i) has outlined its primary operations, which include acting as the System Operator and scheduling and dispatching of generation plants. The said functions are in conflict with the NEPRA Act and Regulations. The Section-23G(1) of the NEPRA Act provides that "...only one such licence shall be granted at any one time...". It may further be noted that Section-14B(4) & 14D(2) of the NEPRA Act, require the generators to make the generation facility available, inter alia, for non-discriminatory, economic dispatch and operation of the national transmission grid and connected facilities. Accordingly, the System Operator, including Dispatch of Power Plants,



cannot be entrusted to PGC. In its application, PGCL has submitted that the scope of functions for PGC as contained in the NEPRA Act clearly establishes that the Applicant/Petitioner will not be expected to carry out dispatch of generation facilities in relation to the national grid projects, a function presently under the domain of NGC/NTDC (as long as it is responsible for system operation) and later on the System Operator. The above statement attempts to restrict the "dispatch" role of the System Operator (or currently the NTDC) to the projects connected to national grid. The understanding is not in line with provisions of Section-18B and Section-23G of the NEPRA Act. The Section-18B of the NEPRA Act provides for the responsibilities of PGC whereas the Section-23G describes the role of the System Operator. The limitations and constraints of NTDC and network of DISCO(s) stated in the application, are general in nature, mostly baseless and without any evidence. PGCL may be asked to provide details of the RE and others projects delayed due to the alleged inaction on the part of DISCO(s) and their current status. PGCL has alleged that the political interference has resulted in unprofessional extension in the L.T. network(s). In view of the said, PGCL be asked to provide the evidence to the said statement and provide the methodology for a public sector entity i.e. PGC to handle the above mentioned political interference for which the DISCO(s) have allegedly failed to handle professionally. PGCL has failed to provide any project of its own rather it has opted to conveniently pickup

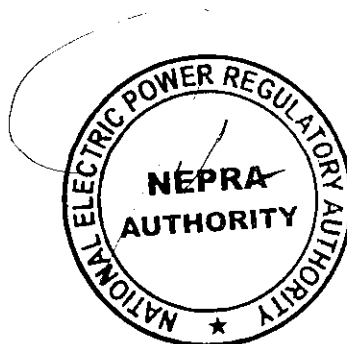


any of the "economical" projects already on the approved investment plan list of NTDC/DISCO(s). In this regard, it is highlighted that projects for TL(s) are required to be carried out through relevant software e.g. PSSE, etc. which is missing in this case. PGCL has also failed to provide a professionally designed/formulated "project selection criteria", instead it has conveniently chosen to encroach the already planned projects of NTDC/DISCO(s) at its own discretion without any coordination with and/or consent from the relevant stakeholders. Further, potential projects of PGCL are identical to those in the STG Program of DISCO(s) due to which there is a serious question whether PGCL can undertake these projects or not? The parameters and prerequisites regarding consultations/cooperation with DISCO(s) should be specified. Further, adequate details of primary resources, i.e. manpower (technical, administrative, support, Linemen, Assistant Linemen, Foremen, etc.) to demonstrate its capacity to undertake the huge responsibility of PGC, have not been provided. The application lacks a strong foundation and contains a huge amount of irrelevant details accordingly, the instant application is requested to be returned without any further action with the directions to submit comprehensive and relevant documentation as required under the NEPRA Act, Rules and Regulations;



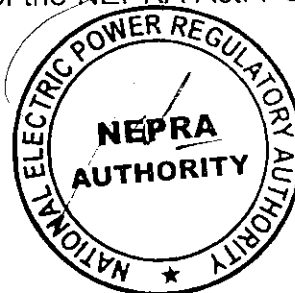
- (g). PIED&MC expressed that it is an important stakeholder in the business of electric supply and distribution. The applications of PIED&MC for supply and distribution licenses for five economic zones are already at various stages of the processing with the Authority. PIED&MC currently has over eight hundred (800) satisfied industrial consumers which will increase to around two thousand (2000) in the next few years. PIEDMC is of the concerted opinion that grant of licence to PGCL will be a great step in improving the efficiency of electrical transmission in the province of Punjab. The Authority has already granted similar licence for the provinces of Sindh and Khyber Pakhtunkhwa. In view of the said, PIEDMC supports the grant of Transmission Licence to PGCL as PGC for the province of Punjab;
- (h). E&PDGoKPK remarked that the Govt. of the province strongly believes that the healthy competition among market players will bring sizeable and promising changes to ensure reliability, efficiency and affordability in the power sector and will trickle down a lot of benefits to the end consumers. Apart from the generation, a flexible transmission system is the need of the hour that can be fulfilled with the support of PGC(s). In view of the said, the grant of licence to PGCL for PGC is recommended; and



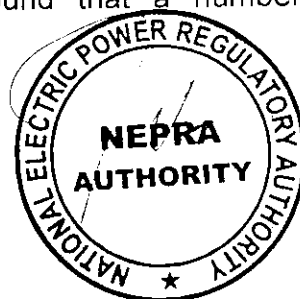


(i). MoPD&SI expressed that the Federal Govt. has not prescribed the required Eligibility Criteria for the grant of Licence for PGC as per Section-18A(2) of the NEPRA Act. In this regard, the Authority has already granted Licences to the companies of Govt. of Sindh and Khyber Pakhtunkhwa therefore, the case of PGCL may be considered on similar lines.

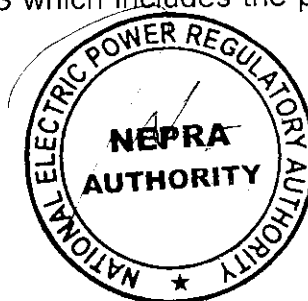
(ii). The Authority considered the above comments of the stakeholders and in view of the observations of GEPCO, FESCO, LESCO and MEPCO, decided to seek rejoinders from PGCL. In consideration of the above, PGCL on the comments of GEPCO submitted that the eligibility criteria for setting up a PGC under Section-18(B) of the NEPRA Act shall be prescribed and shall include without limitation (a). Minimum solvency requirements; and (b). Minimum technical and human resource requirements. It is pertinent to mention that PGCL is a wholly owned company of GoPb. In this regard, the GoPb has committed and guaranteed to meet the eligibility criteria as prescribed under the NEPRA Act with respect to the minimum solvency, required for the successful implementation of the project, as detailed in the submitted application for PGC. The company/PGCL has committed to comply with the minimum technical and human resource requirements as set out in the Feasibility Study (FS) and Application/Petition. Further to the said, PGCL submitted that the Non-prescription of rules does not preclude it from obtaining licence for PGC and precedents in the case of provinces of Sindh and Khyber Pakhtunkhwa are available whereby the absence of rules did not restrain the Authority from issuance of licences. Furthermore, the Rules are directory in nature, as there are no consequences attached therewith, do not go to the root of the matter and cannot therefore hold in abeyance the grant of rights available to the GoPb under the Constitution of Pakistan and the NEPRA Act. PGCL submitted that there is no conceptual confusion, factual contradiction or inherent flaws in the application as the same is complete in all aspects and meets the requirements of Section-18A of the NEPRA Act. PGCL submitted that there is



a distinction between the transmission licence and the licence for a PGC which includes construction, operation and maintenance of the grid systems, laying of TL(s), network operations and system operations. PGCL as PGC shall provide transmission and interconnection services to the NGC and follow the performance standards that the Authority has laid down. The PGCL as PGC shall follow the instructions of the System Operator while operating at the national grid level. The system operations role of PGC will remain limited to TL(s) projects not connected to the national grid. The application of PGC is made under Section-18A of the NEPRA Act, whereas its responsibilities are provided under Section-18B of the said Act. Therefore, PGC will be required to fully comply with its obligations and responsibilities under the NEPRA Act and there is no ambiguity. However, in the longer term it is foreseen that a considerable network would be developed which could not be connected to the national network mainly due to the provisions under the NEPRA Act about captive generation, independent suppliers with bilateral contracts with generators and isolated/off-grid distribution networks. In order to address such structure it would be important for PGC to be involved in control and dispatch of transmission as well as generation facilities. However, prior to entering into such a scenario, necessary regulatory regime including the creation of provincial regulators would be required as well as agreed protocols with NPCC/System Operator. PGCL submitted that Section-14B(4) and 14D(2) of the NEPRA Act, relate to projects directly or indirectly to the national grid and it shall follow the instructions of the System Operator while operating at the level of national grid. The role of System Operations of PGC will remain limited to TL(s)/projects not connected to the national grid. The projects not connected to the national grid will be operated/dispatched as per the approved framework within the province. Further, PGCL stated that the limitations and constraints of NTDC and network of DISCO(s) are established from the data the Authority publishes in its State of Industry Report and that of GoP which is duly analyzed and reflected in the FS submitted with the application. The constraints of NTDC are neither baseless nor without evidence. The data that NTDC and DISCO(s) submitted to PPDB was analyzed and it is found that a number of transmission and

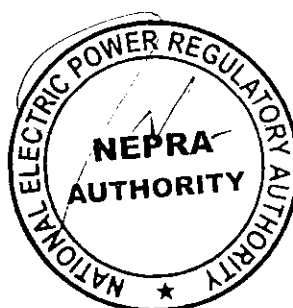


transformation constraints are there. Moreover, in order to verify further data was obtained from NPCC which supplemented the constraint of NTDC and DISCO(s). Further to the said, it was submitted that the Authority in its Performance Evaluation Report 2022 pertaining to the Transmission Companies (i.e. NTDC and KEL) categorically mentioned that in the last few years, NTDC has been reporting constraints in transmission system as one of the major causes of underutilization of efficient power plants. During the period, there were several instances where the transmission system remained incapable to transmit the electric power from efficient power plants to load centers. Therefore, NTDC needs to take measures/steps to remove constraints in its network to off-take electric power from existing power plants as well as upcoming power projects. Accordingly, the load shedding is still being carried out because of inadequate transmission network and transformation capacity to evacuate the electric power from existing generation plants to load centers in many areas of the province Punjab. It may be noted that the role of PGC is supplementary and complementary to NTDC and DISCO(s) as far as network expansion is concerned. It was submitted that the constraints/problems related to DISCO(s) and the potential projects (RE as well that of conventional) with resource availability and the stages of their implementations, have been duly provided in the FS submitted with the application. PGCL submitted that based on the data and information of the PC-I of five (05) years Expansion, Rehabilitation and Rural Electrification (ER&RE) plans, many of the DISCO(s) had identified that many of the 11 KV feeders are uneconomically lengthy which are creating more losses and need bifurcation to make them efficient. The setting up of PGCL would create a competitive and efficient environment for transmission service sector in the province of Punjab resulting in promotion of technically sound practices. PGCL explained that the potential projects pertaining to generation of electric power have also been indicated in the FS and these projects can serve the BPC(s) in the province of Punjab through its transmission service, enable optimal utilization of generation potential in the province with minimal or no reliance on the national grid. Further, the standalone projects of TL(s) of PGCL as PGC are mentioned in the FS which includes the proposed 250 MW



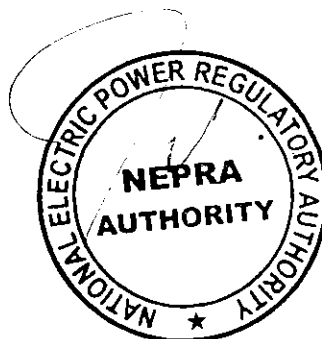
solar park of Chishtian that can be supplied to facilities of WASA located at Multan, Bahawalpur, Faisalabad, Lahore as well as Lahore Orange Line Metro Train (OLMT) through a wheeling arrangement or through dedicated TL(s). Similarly, the 135 MW Taunsa Hydropower Project and 250 MW of Rojhan Solar farms are also strong contenders for the proposed arrangement for PGC. Further, the GoPb is considering implementation of Mini/Micro grid in the province of Punjab as it has a large irrigation system on canals that has potential for small/mini hydropower and this potential could be exploited for providing cheap electricity to the population and small industry located in nearby areas. PGCL clarified that the FS was carried out with the main objective to assess the potential of setting up a PGC and the specific projects in this regard and their suitability will be assessed on a case to case basis before finalization. The concerns that GEPCO has shown have been duly addressed in the FS which PGCL submitted with its application. The framework for coordination between PGCL, NTDC and DISCO(s) have been finalized after detailed discussions with all the stakeholders which will be further improved to avoid any difficulty. It is to be noted that the role of the PGCL as PGC will be to supplement and complement NTDC and DISCO(s) in the expansion of the network. The FS of PGCL/PGC was presented in consultative sessions inviting representatives from public and private sectors and all DISCO(s) operating in the province of Punjab, including GEPCO duly participated and contributed in the consultative sessions and all the observations raised and the solutions thereto were incorporated in the final version of the same. It is once again reiterated that PGCL as PGC intends to implement the projects in a collaborative manner with DISCO(s) to avoid any duplication of resources. About the manpower and HR requirements of the company, PGCL submitted that the same are set out in the application and the FS. Further, the organogram and the roles and responsibilities of the key functionaries and staffing plan have also been set-out in the same. PGCL stressed that its application is complete in all aspects and meets the requirement of Section-18A of the NEPRA Act and all the information provided is relevant and is for the assistance of the Authority.





(iii). On the observations of LESCO, it was submitted that a detailed reasoning has been submitted on the issues of constraints in areas of DISCO which are reiterated. About the observations related to the IGCEP, it was submitted that the first two versions of the same have heavy reliance on large hydro. Out of about 33000 MW additional power generation projects as per the projected load increase, about 27,000 MW are based on large hydro. Resultantly, there is very little space left for RE based power projects including huge solar potential available in the province of Punjab. The IGCEP does not cater for small projects of below 20 MW capacities whereas almost all hydropower potential available in Punjab comprises of projects individually below 20.00 MW. The current approved IGCEP has no block allocation for projects with new technology including Waste to Energy (WtE), Biomass and concentrated solar. The said situation may result in delay in the maturity of the available potential of power generation in the province of Punjab. Further to the said, PGCL clarified under Article-157 (2)(c) of the Constitution of Pakistan, the Government of a Province may construct power houses and grid stations and lay TL(s) for use within the Province therefore, the mandate of NTDC under NEPRA Act has always been subject to the said article since its inception.

(iv). About the comments of FESCO and MEPCO, it was submitted that most of the observations were identical as in the case of GEPCO and LESCO therefore, the same are reiterated and only those are being replied which are not already addressed as explained in the preceding paragraphs. PGL submitted that FESCO in its comments had referred to Section-17(3) of NEPRA Act which relates to the NGC not PGC for which there exists a separate section. About the comments of FESCO in respect of clause 5.2.2 of the NEP-2021 while referring to the role of NTDC as custodian/lead on TSEP, it was confirmed that the same has been duly acknowledged in the submitted FS that is part of the application.

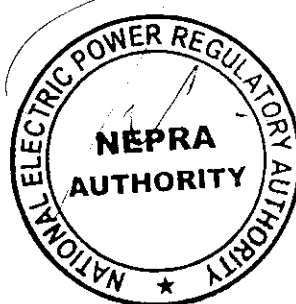


(v). The Authority considered the above comments of the stakeholders and decided to hold a public hearing in the matter at its main/head office in Islamabad. Further, based on the observations/comments of the stakeholders and other relevant facts related to the case, the Authority also framed "issues of hearing" for the proposed public hearing.

(C). Public Hearing

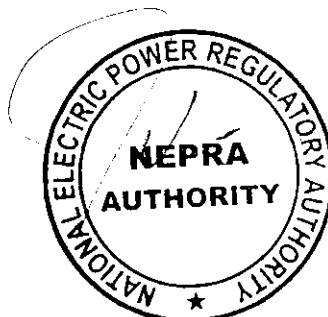
(i). In consideration of the above, a public notice was published in the press on May 27, 2023 informing the relevant stakeholders, interested, affected parties/persons and the general public about the public hearing and their participation. Further, letters were also sent on May 27, 2023 to different Ministries, their attached departments and representative organizations about the public hearing and their participation thereof for the issues of hearing as detailed below:-

- (a). The eligibility criteria prescribed in the NEPRA Act for the grant of Licence as a PGC include (i). Minimum solvency requirements; and (ii). Minimum technical and human resource requirements. What is the status of the PGCL in terms of the said criteria/benchmarks?
- (b). What is the status of the PGCL in terms of the eligibility criteria prescribed under Section-18A of the NEPRA Act for the grant of Licence as a PGC?
- (c). In the absence of the above prescribed rules, is it legally plausible for PGCL to file an application and to make a request to the Authority for the grant of Licence for PGC?

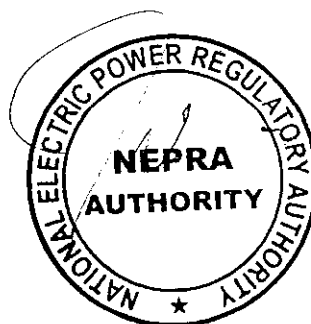


- (d). What is the experience of the Applicant (i.e. PGCL) and its management in the electric power sector, especially in the business of construction of TL(s) to justify itself as a PGC in the province of Punjab?
- (e). Whether PGCL for its proposed scope as a PGC has carried out any proper bankable FS for the project(s) to ascertain the exact scope of work being envisaged?
- (f). The proposed scope of the PGC includes laying of various types of TL(s) of 132 KV, 220 KV and 500 KV. Does PGCL possess the required capability to design, construct, own and operate such TL(s) for different voltage levels?
- (g). Whether there are specific projects which PGCL as PGC intends to undertake after the grant of licence and what will be the source of funding/options for financing these projects?
- (h). Whether the envisaged scope of PGCL as a PGC is consistent/compliant with the scope of the proposed IGCEP and TSEP or not?
- (i). NTDC, FESCO, GEPCO, LESCO and MEPCO have been constructing TL(s) in the province of Punjab for dispersal of electric power from the generation facilities set up in the province. Has any coordination been made to avoid any duplication of work?

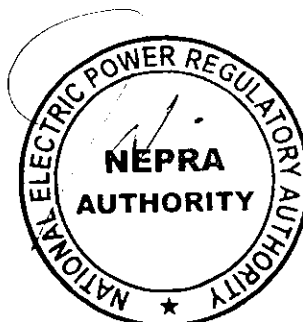
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- (j). Right of Way (RoW) is a precious resource considering the fact that most of the resources for generation of power are located in the south of the province of Punjab. What measures have been taken up with NTDC and other DISCO(s) to ensure that RoW is utilized in an optimum manner?
- (k). Whether, the applicant/PGCL has the required capability, expertise and other relevant skills to acquire the required RoW for the construction of the proposed TL(s) as stated above?
- (l). What is the ability of the applicant/PGCL and its Management to raise the required funds for the construction of the proposed TL(s) connecting various generation facilities proposed to be constructed in the province for wheeling the power to various locations?
- (m). In terms of Section-18B of the NEPRA Act, the PGC is required to operate and provide safe and reliable transmission services on a non-discriminatory basis. Does PGCL understand that it will be able to adhere to the said provision or otherwise?
- (n). According to Section-18B of the NEPRA Act, a PGC is required to fulfil a number of requirements for providing transmission and inter-connection services to the NGC and to others. Does PGCL understand that it will be able to fulfil the various provisions or otherwise?



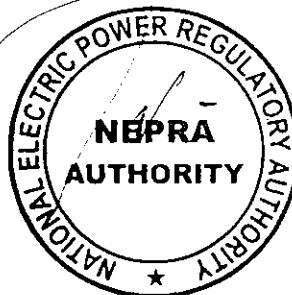
- (o). Whether the infrastructure to be developed by PGCL as a PGC will be subject to non-discriminatory open access and centralized system operation and dispatch by the System Operator i.e. NPCC or NTDC as NGC as the case may be?
- (p). What type of infrastructure will be deployed by PGCL as a PGC for the purpose of coordination, interconnection services and connecting its facilities with NGC?
- (q). Will PGCL as a PGC adhere to the performance standards laid down by the Authority for transmission of electric power, including Health, Safety and Environmental protection instructions issued by the Authority or any Govt. agency?
- (r). Whether the grant of Licence to PGCL as PGC will result in infringement of the rights of NTDC under Section-17(2) of the NEPRA Act as National Grid Company or not?
- (s). If the Authority approves the grant of Licence to PGCL as a PGC, what should be the minimum term of the proposed Licence and its justification for the same in this regard? and
- (t). Whether PGCL for its proposed Licence for PGC has obtained necessary/requisite authorizations from the relevant Govt. agencies including but not limited to Safety, Health and Environment?



(ii). The public hearing in the matter was held on June 13, 2023 wherein the stakeholders had the option to join the proceedings either through ZOOM or to participate physically at main office of the Authority in Islamabad. In this regard, the representatives of Central Power Purchasing Agency (Guarantee) Limited (CPPAGL) and NTDC joined the proceedings through ZOOM wherein the representatives of PGCL joined the public hearing physically at Islamabad.

(iii). The team of PGCL gave a detailed presentation on the background of the case and also elaborated the point of the company on the observations that a few stakeholders specially DISCO(s) have made and reiterated its position as explained in the preceding Paragraphs. Further, the representatives of PGCL submitted their position on the different issues that the Authority had framed in the matter.

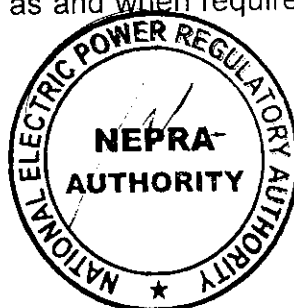
(iv). In this regard, it was submitted that Article-157-(2)(c) of the Constitution of Islamic Republic of Pakistan, 1973 provides that the Government of a province may construct power-houses and grid stations and lay TL(s) for use within the Province. Further, Section-18A of the NEPRA Act also allows the establishment of a PGC for transmission of electricity within a province. It was submitted that the province of Punjab was the major stakeholder in the electric power sector of the country in terms of Installed Generation Capacity (43,775 MW), No. of Consumers (33.19 Million), Consumption (107.87 TWh), Revenue Collected (2,193 Billion PKR) and the contribution of the province of Punjab is Installed Generation Capacity (18,524 MW-42.31%), No. of Consumers (26.01 Million-78.39%), Consumption (83.68 TWh-77.58%), Revenue Collected (1810 Billion PKR-82.54%). In view of the said, it is clear that the province of Punjab is the major center for consumption of the generated electric power and accordingly the major revenue collection. Similarly, the province of Punjab has the largest consumer base for the Industrial, Commercial and BPC(s) which forms about 83.72%, 79.24% and 67.04% of the total consumer base of the country meaning that the key beneficiaries of the same will be Industrial,



Commercial & BPC(s) in the province of the Punjab, if there is connectivity that can be provided through PGCL. In consideration of the said, the cabinet of the GoPb approved the establishment of PGC in its 45th meeting on June 14, 2021 and accordingly the company in the name of PGCL was incorporated with the Securities & Exchange Commission of Pakistan (SECP). On the directions of cabinet of the GoPb, the FS was completed and accordingly PGCL submitted the application for PGC.

(v). About the issue of the eligibility criteria prescribed in the NEPRA Act for the grant of Licence for PGC, it was submitted that as explained in reply to the comments of different stakeholders, PGCL is a wholly owned company of the GoPb which has mandated it to act as PGC on behalf of the province as per Section-18A and 18B of the NEPRA Act and in this regard, has committed to provide sufficient funds to meet minimum solvency requirement as required under the NEPRA Act. The Section-18A of the NEPRA Act provides the guiding requirements for minimum solvency and HR and the submitted application of the company provides the details about financial & HR plans in this regard. The GoP has not yet framed the rules under the said section of the NEPRA Act however, the non-prescription of rules does not preclude PGCL from obtaining the licence for PGC. In this regard, the Authority had already granted licences to two companies of the provinces of Sindh and Khyber Pakhtunkhwa to act as PGC in the absence of such rules in the field therefore, PGCL is of the considered opinion that it has a case for the required licence even in the absence of these rules.

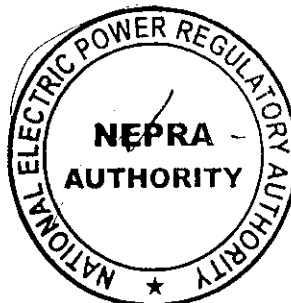
(vi). About the experience of PGCL and its management in the electric power sector, especially in the Transmission Line Business to justify itself as PGC, it was stated that a FS was carried out which provides the details about the proposed HR plan of the company in the matter including the description of each position, its eligibility criteria and the Job Description for each position/slot. The GoPb has appointed a core team of seasoned professionals with vast experience in electric power sector including the transmission business. The company plans to expand the HR requirements on as and when required basis once projects are



at the stage of execution. The said approach has been opted for the optimal use of resources and to avoid any extra burden on the public exchequer. Further, the management of the company/PGCL has also chalked out a program with an option to outsource some of its activities including EPC, etc. It is pertinent to mention that the said approach has gained popularity being cost effective and consequently DISCO(s) and NTDC have adopted the same.

(vii). Regarding carrying out any proper bankable FS for the project to ascertain the exact scope of work being envisaged by PGCL as PGC, it was stated that a detailed FS for the scooping of PGCL to work as PGC has been conducted to assess its technical, commercial and legal viability. The FS includes business plan of PGCL as PGC and has identified the proposed short, medium and long term projects that can be potentially executed under the scheme of arrangement envisaged. In this regard, all the key stakeholders including NTDC, LESCO, FESCO, IESCO, GEPCO and MEPCO were consulted on outcome of the draft FS and their respective inputs were incorporated in the final report of the FS. In order to ensure more transparency for the projects to be executed, separate detailed bankable FS(s) will be carried out prior to its execution for each project that PGCL plans to execute under the umbrella of PGC. In this regard, PGCL submitted that all the stakeholders i.e. NTDC, CPPAGL and relevant DISCO(s), etc. will be taken on board before undertaking any project.

(viii). Regarding the capability of PGCL to design, construct, own and operate TL(s) having voltage levels of 132KV, 220 KV and 500 KV, it was submitted that the enabling laws do not impose any restriction on the voltage level of TL(s) under scope of PGC. However, for the comfort of all the stakeholders, PGCL has already hired the services of the core experts, having extensive experience in carrying out above mentioned scope for the transmission business. Further to the said, in-house as well as required external resources will be acquired as per the scope of work. In order to implement the projects involving TL(s) of 132KV, 220 KV and 500 KV, the business model of outsourcing will be adopted through engineering/consulting firm(s) having sufficient experience in the designing of

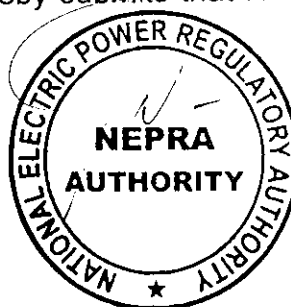


relevant projects with accredited experience of EPC. The management of PGCL hereby confirms that either it will have the required resources available in-house or otherwise the alternate will be arranged through open market without any exception.

(ix). About the specific projects that PGCL as PGC intends to undertake after the grant of licence with source of funding/options for financing, it was submitted that the business plan of PGCL as given in the FS, provides a complete plan for the projects to be executed in the short, medium and long terms basis. These include the short term standalone projects for sale of electricity to public sector consumers, the TL(s) from waste landfill of Lakhodair to OLMT and from 300 MW Solar Park located at Chishtian to the Industrial Estate of Vehari etc. Further to the said, it was submitted that initially, the GoPb plans to fund the projects from its Annual Development Plan (ADP) however, at a later stage other funding options may also be explored through the introduction of investment policy for the TL(s).

(x). About the envisaged scope of PGCL as PGC to be consistent/compliant with the scope of the proposed IGCEP, it was stated that PGCL as PGC intends to carry out standalone as well as grid integrated transmission projects. In this regard, PGCL will regularly share its proposed grid integrated projects with its federal counterpart. Further, all the future grid integrated projects will be compliant with the IGCEP/TSEP and all other applicable regulations and codes etc.

(xi). Regarding coordination with NTDC, FESCO, GEPCO, LESCO and MEPCO to avoid any duplication of work of TL(s) and grids, it was submitted that PGCL strongly believes in coordination with all the stakeholders of electric power sector including the DISCO(s) and NTDC working in the province of Punjab. In view of the said very reason PGCL has been working in proper coordination with all the stakeholders from its inception. The FS provides a detailed protocol of coordination between PGCL, NTDC and DISCO(s) to avoid any confusion and lack of coordination. In this regard, PGCL hereby submits that NTDC and DISCO(s) will



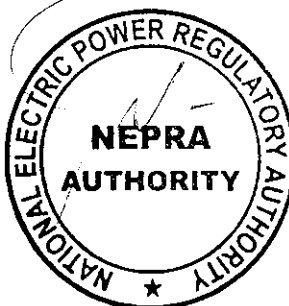
continue the construction and operation of transmission lines in the province of Punjab without any hindrance and it will be working in addition to the operation/scope of NTDC and DISCO(s).

(xii). Regarding the issue of optimum use of RoW and coordination with stakeholders including NTDC and relevant DISCO(s), it was submitted that the issue will emerge once the project is conceived and entered into planning phase. PGCL reiterated that it intends to work in collaboration with all the relevant stakeholders holding government or private land therefore, the RoW for any particular project will be finalized once the location is identified. PGCL, NTDC and all the relevant DISCO(s) shall work in tandem with and support efforts of each other for resolving the issues of RoW. In this regard, PGCL submitted that being a provincial entity, it will have an advantage wherever facilities for TL(s) are to be provided for the projects relating to the industrial growth that are part of ADP.

(xiii). With regards to the required capability, expertise and other relevant skills to acquire the required RoW for the construction of the proposed TL(s) and raising funds for the projects, it was explained that PGCL will acquire the same from private/public land owners under the applicable laws of the land. In this regard, PGCL will closely work with the Board of Revenue of the GoPb and local administration to achieve the required facilitation. It is pertinent to mention that GoPb is already providing necessary facilitation to NTDC/DISCO(s) for acquiring RoW for their respective projects therefore, arranging the same for PGCL shall not be a matter of concern.

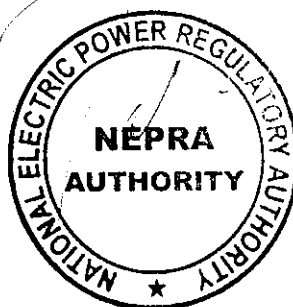
(xiv). About the adherence to the provisions of Section-18B of the NEPRA Act, it was stated that the PGCL is fully aware of the said provisions and will fully adhere to the responsibilities as a PGC on a non-discriminatory basis, providing transmission and inter-connection services to the NGC and others, wherever necessary, at such rates, charges and terms and conditions as the Authority may determine. Further, PGCL as PGC will be purchasing the required inter-connection service from the NGC as may be necessary and to connect its

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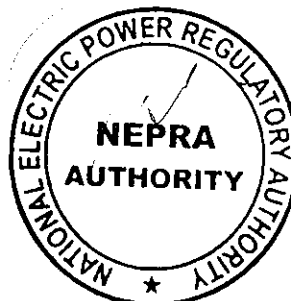


facilities to it at the rates, charges and terms and conditions that the Authority will be determining. Also, PGCL will follow the performance standards that the Authority will lay down for the transmission of electric power and will adhere to the safety, health and environmental protection instructions that the Authority or any other Govt. agency will issue. It will also make available to general public the tariff specifying the Authority's approved rates, charges and other terms and conditions for transmission services; not levy any rate or charge or impose any condition for transmission of electric power which has not been approved by the Authority as a tariff; not cause a division or any associated undertaking to engage in generation and distribution; and develop, maintain and publicly make available, with prior approval of the Authority, an investment program for satisfying its service obligations and acquiring and selling its assets. Furthermore, PGCL will adhere to the relevant regulations for providing non-discriminatory open access and will adhere to all the necessary requirements for providing transmission and interconnection services to the NGC and others.

(xv). In consideration of the above, PGCL reiterated that it will follow the policy of open access subject to the condition that the same is technically and commercially feasible. In this regard, PGCL confirmed that it has already taken on board an Engineer resource for SCADA keeping in view the future requirements of the centralized system operation as the network grows further. Wherever required, PGCL will work in coordination with NGC and NPCC. It was also confirmed that PGCL will strictly adhere to the latest approved Grid Code and will follow the relevant specifications of NTDC, in order to harmonize with the national grid. It was also stated that PGCL will work in coordination with NGC to support the fast track implementation of the projects of TL(s) for which it is already facing constraints and impediments leading to delays in evacuation of power from power projects in the province of Punjab which is cause of major concern for the Federal Government and the GoPb. PGCL further confirmed that as a PGC it will strictly comply with the performance standards that the Authority or any Governmental Agency will be specifying.



(xvi). PGCL submitted that after amendment of the NEPRA Act and the proposed electricity competitive market, all the existing applicable documents of NEPRA require review. The PGC will actively participate in the development of subordinate documents and follow the approved documents. The senior professionals of PGCL possess Diploma in Health, Safety & Environment (HSE) awarded by the Pakistan Institute of Management (PIM) and a course of Institution of Occupational Safety & Health (IOSH). The said professionals will be responsible to conduct periodic training of Operations & Maintenance staff of PGCL to ensure health & safety at all levels to guarantee zero fatalities/injuries during the execution and operation and maintenance of the TL(s) due to stringent monitoring of health & safety of the O&M staff. PGCL being a PGC seeks its first right to establish new network of TL in the jurisdiction of Punjab in collaboration with NTDC to avoid duplication and overlapping of network. PGCL is very well cognizant of the importance of national grid. Further, each project will be planned and executed in coordination with NTDC, wherever required. Section-18A of the NEPRA Act enables, entitles and permits establishment of PGC and grant of licence thereto. PGCL as PGC will focus on new/distressed transmission line projects and therefore, rights of NTDC as per Section-17(2) of the NEPRA Act will remain the same. PGC does not intend to interfere the current infrastructure of NGC. It is pertinent to mention that under Article 157(2) of the Constitution of the Islamic Republic of Pakistan, the government of a province may—(a) to the extent electricity is supplied to that province from the national grid, require supply to be made in bulk for transmission and distribution within the Province; (b) levy tax on consumption of electricity within the province; (c) construct power houses and grid stations and lay transmission lines for use within the Province; and (d) determine the tariff for distribution of electricity within the Province. In view of the said, a province enjoys constitutional right of construction, operation and wheeling of transmission and distribution facilities and electric power services as the case may be within its territorial jurisdiction.



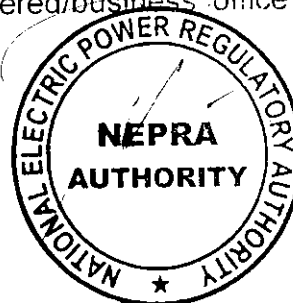
(xvii). About the term of the proposed licence, it was submitted that generally the feasible lifecycle of TL projects is 25-30 years therefore, the initial term of the Licence of PGCL should be at-least of 30 years, consistent with the current transmission licence of NTDC, PGC(s) of Govt. of Sindh, Govt. of Khyber Pakhtunkhwa and SPTL(s) for other companies. Regarding concerns of health and safety concerns and that of the environment, it was confirmed that the same will be reviewed and addressed during the detailed studies to be carried out for each project. The GoPb has already mandated PGCL to act as a PGC for the province of Punjab and has also been ratified by the cabinet of province of Punjab, subject to the condition that the Authority grants it the Licence for PGC. Once the project location is identified and finalized, authorization of Environmental Protection Department, Punjab (EPDGoPb) for environmental impact assessment will be conducted and no objection certificate (NOC)/approval will be obtained from EPDGoPb on project to project basis.

(xviii). The Authority considered the above submissions of the PGCL and in view of the submissions made to the various issues of hearing, considered it appropriate to proceed further in the matter as stipulated in the NEPRA Act and relevant regulations.

(D). Findings & Analysis of the Authority

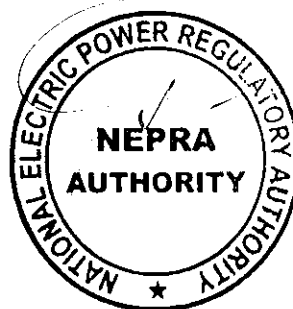
(i). The Authority considered and examined the submissions of PGCL including the information provided with its application, comments of the stakeholders, rejoinder submitted, and the relevant regulation(s)/laws in the matter. The observations and findings of the Authority in the matter are explained in the following paragraphs.

(ii). The applicant i.e. PGCL is an entity incorporated under Section-16 of the Companies Act, 2017 (XIX of 2017), having Corporate Universal Identification No. 0219574, dated January 03, 2023. It is a public limited company owned by the GoPb having its registered/business office at 1st Floor Irrigation



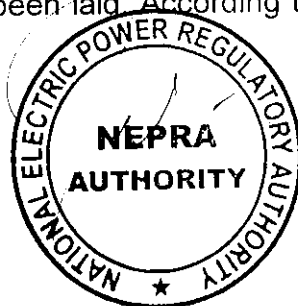
Secretariat, Old Anarkali Lahore, Punjab. According to the Memorandum of Association of the company, its main objectives, *inter alia*, include the business of laying of TL(s) as envisaged under the NEPRA Act.

(iii). In this regard, Section-18A of the NEPRA Act, *inter alia*, stipulates that the Authority may grant a licence authorizing a company owned by a Provincial Government to engage in the transmission of electric power within the territorial limits of such province, provided that only one such licence shall be granted for each province at any one time. In this regard, the said Section prescribes the eligibility criteria for grant of such licence which include (a). minimum solvency requirements; and (b). minimum technical and human resource requirements. In terms of Section-2 (xxii) of the NEPRA Act, the said criteria are to be prescribed by the Federal Govt. through rules and the same were not in place till the time the Authority took up the matter of the request of PGCL for the consideration of licence for PGC. In this regard, the Authority refers to the pronouncements of the Superior Court of Pakistan, wherein it has been determined that the absence of the Rules or inaction of the government functionaries to frame Rules cannot be held to be prejudicial to the rights of the other party. Notwithstanding what has been stated hereinabove, the clause (c) of Article 157 (2) of the Constitution of Pakistan confers constitutional right to the provincial governments to carry out transmission business in their respective provinces. Further, the provision of setting up of PGC i.e. Section-18A was incorporated in the NEPRA Act through amendments of 2018. As explained above, the Federal Govt. was required to frame the rules prescribing the "Eligibility Criteria" for the PGC(s) which are still in the process of notification however, once prescribed shall be applicable to all the PGC(s) including the Applicant/PGCL. In view of the said, the Authority is of the considered opinion that the Applicant/PGCL cannot be refused the licence of PGC in the absence of the required Rules and therefore it decided to move ahead with the request of PGCL. Further to the said, PGCL/GoPb has submitted an undertaking and confirmation that once the Federal Govt. notifies the required rules, it will fulfil the same in letter and spirit including the requirements of minimum solvency and minimum technical and human resource requirements.



(iv). Further to the above, Section-18B of the NEPRA Act, prescribes various responsibilities of PGC including (a). to operate and provide safe and reliable transmission services on a non-discriminatory basis, including to a BPC which proposes to become directly connected to its facilities; (b). providing transmission and inter-connection services to the NGC and to others, wherever necessary, at such rates, charges and terms and conditions as the Authority may determine; (c). purchasing inter-connection service from the NGC as may be necessary and to connect its facilities to the national grid at the rates, charges and terms and conditions determined by the Authority; (d). follow the performance standards laid down by the Authority for transmission of electric power, including safety, health and environmental protection instructions issued by the Authority or any governmental agency; (e). make available to the general public the tariff specifying the rates, charges and other terms and conditions for transmission services approved by the Authority; (f). not levy any rate or charge or impose any condition for the transmission of electric power which has not been approved by the Authority as a tariff; (g). not cause a division or any associated undertaking to engage in generation and distribution; and (h). develop, maintain and publicly make available, with the prior approval of the Authority, an investment program for satisfying its service obligations and acquiring and selling its assets. In this regard, PGCL has confirmed that all the above provisions shall be complied with, without any exception.

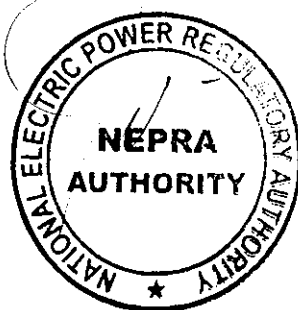
(v). The Authority has further observed that Council of Common Interests (CCI) has been established under Article-153 of the Constitution, mandated under Article-154 to formulate and regulate the policies in relation to matters in Part II of the Federal Legislative List and to exercise supervision and control over related institutions. Electricity being a Federal Legislative subject is listed at Serial No. 4 of Part-II of the Federal Legislative List, which falls within the purview of CCI. In consideration of the above, CCI being a constitutional body, has approved NEP-2021 whereby the framework for integrated planning of the electric power sector of the country has been laid. According to clause 5.2.2 of the NEP-



2021, the Provincial Governments shall have the powers to construct grid stations, lay transmission lines and engage in the transmission of electric power within the territorial limits of such province subject to Article-157 (2) of the Constitution and the laws. In consideration of the said, the NEP-2021 harmonized the functions of PGC by stating that it shall coordinate with the NGC and provide all relevant data required, at the conception stage prior to any execution. The National Electricity Plan 2022-27 (the "NE Plan-2022-27") also recognizes the establishment of PGC(s) and their coordination with the NGC for preparation of the TSEP.

(vi). According to the information provided by the company, the scope for the PGC will include construction of various TL(s) of different voltage levels for evacuation of electric power from the various proposed (a). Hydro Power Plants [HPP(s)] projects located on different canals and barrages with a cumulative capacity of about 250.00 MW; (b). solar and wind projects with cumulative capacity of about 1530.00 MW for short term scenario; and (c) solar projects with cumulative capacity of about 1390.00 MW for Medium Term Scenario. In this regard, PGCL has confirmed that proper FS for each project will be carried out in consultation with all the relevant stakeholders. In view of the said, the Authority decides to include the said provision pertaining to carrying out the FS of each and every project, in the proposed terms and conditions of the licence.

(vii). PGCL has also confirmed that the Initial Environmental Examination (IEE)/Environmental Impact Assessment (EIA) for each of the project will be carried out. In this regard, once any of the project as explained above is initiated and necessary approval will also be obtained. About the term of the proposed Transmission Licence of PGCL as PGC, the Authority considers that transmission lines and other related infrastructure have a useful life of more than thirty (30) years and accordingly the same may be considered as a benchmark for setting the term of the proposed licence.

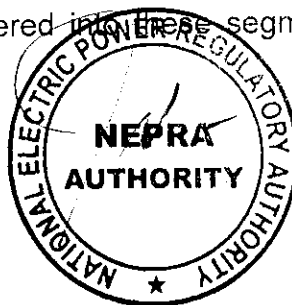


(viii). Regarding the tariff/Use of System Charges (UoSC) of PGCL as PGC, it is hereby clarified that under Section-7(3)(a) of the NEPRA Act, determining tariff, rate and charges, etc. is the sole prerogative of the Authority. In this regard, PGC will be required to submit a petition for tariff under the NEPRA Act, relevant rules and regulations, for determination of its tariff/UoSC.

(E). Grant of Licence for PGC

(i). The sustainable and affordable energy/electricity is a key prerequisite for socio-economic development of any country. In fact, the economic growth of any country is directly linked with the availability and dispatch of safe, secure, reliable and cheaper supply of energy/electricity. In view of the said reasons, the Authority is of the considered opinion that for sustainable development, all types of resources especially the indigenous should be utilized for generation of electric power and the required infrastructure for transmission and distribution must also be developed to utilize the generated/available electric power.

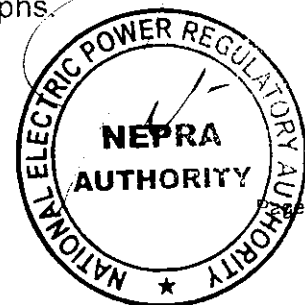
(ii). The Authority also considers that the ultimate dream of safe, secure, reliable and cheaper supply of energy/electricity for the end consumer can only be realized if the complete supply chain of electric power including generation, transmission, distribution and supply is complete and robust. In this regard, the Authority is of the considered opinion that in the previous years a lot of investment has been made in the generation segment of the supply chain of electric power however, the required level of investment in the remaining segments of transmission, distribution and supply could not be made. Resultantly, the full benefits of the addition in capacity in the generation segment have not been achieved. This is primarily due to the fact that transmission, distribution and supply segments are mainly controlled by the public sector entities and have their limitation to arrange the required amount of funds to carry out the expansion(s) required in this regard. Lately, there have been a few instances whereby private sector entities and provincial Govts. have entered into these segments specially transmission



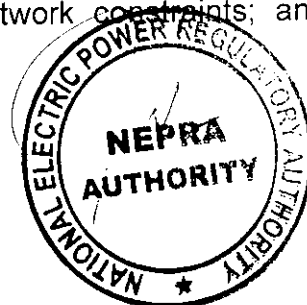
business for which the Authority has granted Special Purpose Transmission Licences.

(iii). As explained in the preceding paras, in the last decade a considerable investment has been made in the generation segment of the country, especially in the RE sector of the country including Hydel resources. In this regard, a significant potential of the hydel, solar and wind resources are located in northern, center and southern part of the country in the province of Punjab. Although significant efforts are being made to enhance the share of Hydel, Wind and Solar in the overall energy mix of the country but availability of the required transmission and grid is proving to be a handicap for addition of more such resources. In this regard, the Authority has observed that even the existing HPP(s), Solar, Wind and local coal based generation facilities are facing numerous issues pertaining to dispersal of electric power due to relatively weak infrastructure in the north and south of the country including curtailment of power during peak season. In view of the said, the Authority is of the considered opinion that there is huge scope for investment in the transmission segment of the electric power sector of the country.

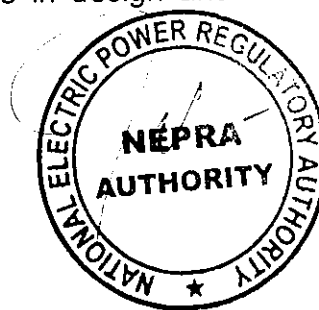
(iv). The latest amendments in the NEPRA Act envisage the development of a competitive and sustainable electric power market with special emphasis on the development of RE. The said amendments envisage a number of new concepts/licences including Captive Generation, PGC, Market Operator Licence, Electric Power Trader, Electric Power Supplier, System Operator licence and Registration etc. In terms of Section-18A of the NEPRA Act, the Authority may grant a licence authorizing a company owned by a provincial Government to engage in the transmission of electric power within the territorial limits of such Province. In accordance with the provisions of Section-18A, the GoPb through its 100% owned subsidiary in the name of PGCL has approached the Authority for the grant of a Transmission Licence to act as PGC. In this regard, the Authority has considered the submissions made by PGCL in its application and comments of the stakeholders received in this regard. The determination of the Authority on the various issues has been given in the following paragraphs.



(v). As explained in the preceding paragraphs, the Federal Govt. has to prescribe the "Eligibility Criteria" for the grant of PGC licence and includes (a). Minimum solvency requirements; and (b). Minimum technical and human resource requirements in terms of Section-18A of the NEPRA Act. In this regard, the Authority approved the grant of Licence for PGC for PGCL on August 15, 2023 however, before the issuance of this determination the Federal Govt. vide its SRO No. 1111(I)/2023, dated August 25, 2023 notified the Eligibility Criteria Rules (Transmission Licences) Rules 2023 (the "Eligibility Criteria Rules 2023") . According to Rule-3 of the Eligibility Criteria Rules 2023, where the Authority has already granted a Licence to a person pursuant to Section-18A of the NEPRA Act, it shall fulfill the eligibility criteria inter alia including (a) company is registered with the SECP; (b). shall fulfill minimum solvency requirements as provided in the Eligibility Criteria Rules 2023 to ensure effective and efficient performance of its duties and responsibilities; (c). shall fulfill minimum technical and human resource requirements as provided in the Eligibility Criteria Rules 2023 in order to perform its duties and responsibilities; (d). shall have the capability to coordinate and ensure compliance with the instructions issued by the system operator regarding operations on the transmission facilities, transmission scheduling, transmission congestion management and system planning for long term capacity pursuant to the NEPRA Act and grid code; (e). shall have the ability to ensure prompt and effective coordination with the system operator, market operator and other relevant entities to comply with the provisions of the grid code, commercial code and other relevant legal instruments as applicable; (f). shall have the ability to ensure its quality of transmission service by (i). establishing and maintaining the standardized and non-discriminatory procedures for the timely provision of inter-connection services and maintenance of transmission facilities; (ii). ensuring compliance with grid code and performance standards specified by the Authority for provision of transmission services; (iii). fulfilling the requirements of minimum technical resources as prescribed under these rules; (iv). sharing the information and data through website or portal related to the approved transmission system expansion plan and information regarding network constraints; and (v). maintaining the

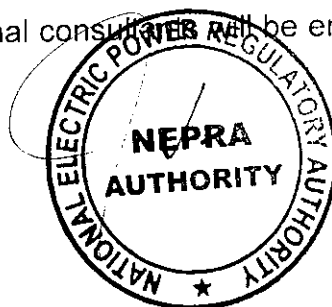


complete and accurate records and data in respect of transmission services. All such records and data shall, unless provided otherwise under the law, be maintained for a period of five years after the creation of such record or data; and (g). shall have a robust IT strategy outlining the planning and execution roadmap for ensuring transparency, effectiveness, efficiency and security in all operations, comprising (i). a secure and reliable server, storage and network infrastructure for hosting backend as well as key applications; (ii). a reliable data backup and recovery system for operation continuity; (iii). an effective information security mechanism, to ensure confidentiality, integrity and the secure availability of data as part of an IT governance framework; and (iv). an effective and efficient mechanism of analysis and reporting of information through transparency portals, website and other secure information sharing techniques. Further, the person having Licence for PGC shall also have the ability to support NGC for preparation of TSEP as well as DISCO(s) for preparation of plan for the expansion and augmentation of transmission & distribution facilities of such distribution licensees. Apart from the said, the Eligibility Criteria Rules 2023 prescribe (a). Minimum solvency requirements; (b). Minimum technical resources requirements and (c) Minimum human resource requirements. The provisions pertaining to the Minimum solvency requirements envisage that the applicant for PGC (i). shall have and maintain minimum long-term credit rating of "A" from a credit rating agency licensed by the SECP and submit a report to the Authority; (ii). shall have minimum paid-up capital equivalent to five hundred million rupees; and (iii). shall have minimum long-term debt-to-equity ratio equal to 80:20 for project of TL(s). Similarly, the Minimum technical resources requirements require that applicant for Licence for PGC shall have or deploy the following minimum technical resources including (i). tools for power system studies and analysis, protection and control; (ii). infrastructure and equipment to develop, operate, rehabilitate and maintain the transmission facilities including inter-connection to meet the requirement for stable and reliable grid as per the Grid Code and performance standards specified by the Authority for the provision of transmission services; (iii). tools and plants required for the human and equipment safety; (iv). expertise in design and execution of civil and electrical



works; and (v). secured Information and Communications Technology (ICT) infrastructure for operation & control of its transmission facilities and for coordination with the system operator. Regarding the minimum human resource requirements, the above mentioned rules envisage applicant for PGC shall employ at least fifty percent of their sanctioned strength at all times in order to perform its functions and duties. Further, the "sanctioned strength" for the above shall mean the number of posts in various scales and cadres, which have been duly approved by the board of directors of an applicant. In consideration of the above, the Authority has observed that most of the requirements envisaged in the rules notified were deliberated during the processing of the application of PGCL for the grant of Licence for PGC. In this regard, PGCL fulfilled most the requirements and provided the required documents, undertakings and confirmations about the compliance of the rules. Notwithstanding the above, the Authority considers that PGCL as applicant or the prospective Licence as PGC is still to provide/confirm about (i). its long-term credit rating from a credit rating agency licensed by the SECP; (ii) the minimum paid-up capital; and (iii). the minimum long-term debt-to-equity ratio for projects of TL(s). In view of the said, the Authority directs PGCL to submit within three (03) months of issuance of this Licence for PGC, an undertaking that it will adhere to the provisions of the rules all the requirements envisaged under Rule-3 of the Eligibility Criteria Rules 2023 including minimum solvency requirements, minimum technical resources requirements and minimum human resources requirements.

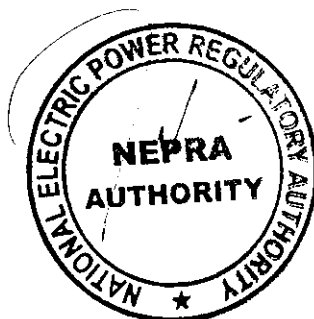
(vi). About the experience of the applicant/PGCL and its management in the Electric Power Sector, especially in the business of TL(s) to justify itself as PGC the Authority has observed that the PGCL has been recently set up with an objective to act as PGC for the province of Punjab and has not executed any project however, it has engaged the services of experienced individuals and consulting firms for different activities including scoping of the projects, resource requirements in terms of manpower and financing of the projects. The representatives of the PGCL during the public hearing submitted that for future projects, services of reputable local and international consultants will be engaged at all levels to make



up for any lack of experience. In this regard, the Authority considers that deployment/hiring of consultants for the implementation of large infrastructure projects is an industry norm that not only results in acquisition of required expertise but enhances the probability of the success of the projects. In view of the said, the Authority directs PGCL to engage the services of reputable consultants through a competitive and transparent process for the proposed scope being envisaged as PGC.

(vii). Regarding the bankable FS for the projects envisaged to be carried out as PGC, the representatives of PGCL during the public hearing, conceded that at present only the general scope has been identified and proper FS(s) in this regard are still to be carried out. The Authority considers that before carrying out any project, a proper bankable FS is a pre-requisite. Accordingly, the Authority directs PGCL to prepare a bankable FS of each project through reputable consultants before taking any project in hand as PGC. On the capability to design, construct own and operate Transmission Lines having voltage levels of 132 kV, 220 kV and 500 kV, it was submitted that PGCL does not possess the required capability but the same will be acquired by hiring suitable consultants and contractors. In this regard, the Authority considers it appropriate directing PGCL that before embarking on any project of 132kV, 220 kV or 500 kV to not only engage experienced and reputable consultant(s) but also to have close liaison with NTDC so that the equipment of suitable specification are selected and the same are integrated with the system of national grid without causing any problem.

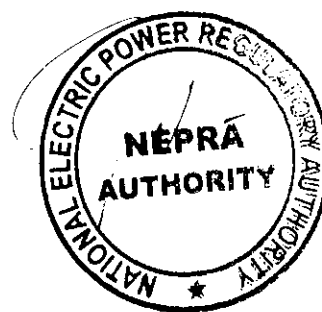
(viii). About the envisaged scope of PGCL as PGC and its integration with the scope of the proposed IGCEP, PGCL confirmed if the said plan is approved by the competent forum and becomes a binding document, it will be followed in letter and spirit. In this regard, the Authority considers that IGCEP is an offshoot of the Grid Code and is a binding document for PGCL. Therefore, once the Authority approves it will be obligatory on the part of PGCL to comply with the same without any exception.



(ix). Regarding coordination with NTDC, FESCO, GEPCO, LESCO and MEPCO, the company/PGCL confirmed that before carrying out any work of construction of any Transmission Line or grid station as envisaged in the scope of the PGC, proper coordination will be made to avoid any duplication of work. The Authority considers that coordination between all the above-mentioned entities is very important and therefore directs PGCL to have a proper coordination so that there is no duplication of effort and wastage of resources including best utilization of RoW for the future project(s) in the province as well as in the country.

(x). About the capability, expertise and other relevant skills to arrange funds and RoW for the construction of the proposed TL(s), PGCL confirmed that it has all the requisite expertise and capability in this regard. PGCL submitted that GoPb has set up projects for power generation for which financing were obtained from commercial banks. Similarly, GoPb has been facilitating the public sector utilities including XW-DISCO(s) and NTDC in acquiring the RoW for the projects of TL(s) all across the province including the recently constructed 660 KV HVDC TL from Matiari to Lahore therefore, arranging the financing and RoW for the projects envisaged to constructed through PGCL should not a matter of concern for any party. In view of the above, the Authority considers that the submissions that PGCL has made are plausible and the company has the requisite capability in the matter. On the issue of the terms and conditions prescribed in Section-18B of the NEPRA Act for PGC, the company/PGCL has confirmed that all the said provisions will be adhered to. The Authority considers that submissions of the PGCL are plausible however, the company is directed to follow provisions of Section-18B of the NEPRA Act at all times without any exception.

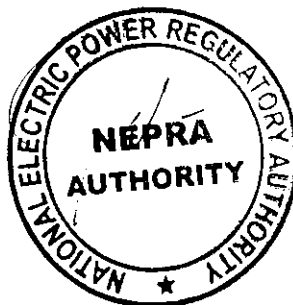
(xi). As explained in the preceding paragraphs, PGCL has confirmed that as PGC it will adhere to the performance standards for transmission of electric power, including safety, health and environmental protection instructions that the Authority or any Governmental agency will be issuing. Further, PGCL also confirmed that it will obtain necessary/requisite authorizations from the relevant



Government agencies including but not limited to safety, health and environment for any of the projects that will be initiated. The Authority hereby directs PGCL to follow the standard norms and good utility practices and seek proper approval from the relevant agencies when initiating any of the projects envisaged in the scope of the PGC.

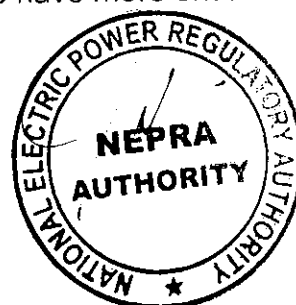
(xii). About the term of the proposed licence, as explained in the preceding paragraphs, the infrastructures pertaining to TL(s) and grid stations normally have a useful life of more than thirty (30) years. The Authority has considered the same benchmark while granting licences for NGC, PGC and SPTLs. In this regard, PGCL has confirmed that infrastructure to be laid under the proposed scheme of arrangement will have a useful life of 30-50 years but has consented that the term of the proposed licence for PGC may be fixed to thirty (30) years. Further to the above, the Rule-6 of the Eligibility Criteria Rules 2023 envisages that the Authority shall grant the Licence for transmission of electric power for a minimum term of thirty (30) years. In view of the consent of the PGCL, previous determinations made for similar cases and the provisions of the Eligibility Criteria Rules 2023, the Authority hereby fixes the term of the licence of PGCL as PGC to thirty (30) years. Regarding the tariff, it is hereby clarified that under Section-7(3)(a) of the NEPRA Act, determining tariff, rate and charges etc. is the sole prerogative of the Authority. Accordingly, the Authority directs PGCL to file a petition for determining of Use of System Charge of its project(s) for TL(s) and grid stations as stipulated in the relevant rules.

(xiii). The Authority has considered the comments of the stakeholders and has observed that most of the stakeholders, have supported the grant of licence to PGCL as PGC whereas, GEPCO, FESCO, LESCO and MEPCO have raised various observations as explained in the preceding paragraphs. It is pertinent to mention that during the course of the public hearing, even the stakeholders conceded that PGC can be granted as the same is permissible/allowed under the NEPRA Act subject to fulfilment of the "Eligibility Criteria". In this regard, the different concerns that GEPCO, FESCO, LESCO and



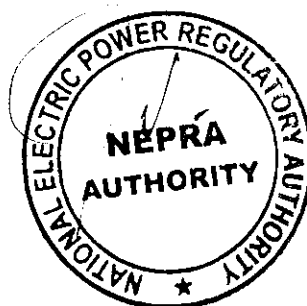
MEPCO have raised in their comments include (a). the lack of the "Eligibility Criteria" in terms of the NEPRA Act; (b). the objectives of System Operator/Scheduling and dispatching of plants in conflict with the NEPRA Act; (c). the limitations/constraints of NTDC and DISCO(s) stated in the application are general, mostly baseless and without any evidence; (d). details of the RE and other conventional projects delayed due to NTDC and DISCO be provided; (e). PGCL has alleged political interference in NTDC/DISCO(s) and how this will be mitigated in its case; (f). the indicated projects in the scope of work pertaining to NTDC/DISCO without identification of additional scope to justify; (g). PGCL has failed to provide professionally designed/formulated "project selection criteria"; (h). adequate details of primary resources, i.e. manpower (technical, administrative, support, Linemen, Assistant Linemen, Foremen etc.) have not been provided to demonstrate the capacity to undertake the responsibility as PGC; (i). According to NEP-2021, the sole responsibility for the centralized TSEP is with NGC/NTDC therefore, a suitable strategy be formulated to ascertain that there will not be any impact on the already granted licence of NTDC.

(xiv). In consideration of the above, the Authority has given its determination on the Eligibility Criteria Rules as explained in the preceding paragraphs above. About the observation that the objectives of PGCL include System Operator/Scheduling and dispatching of plants which is in conflict with the provisions of the NEPRA Act, the Authority has considered the submission of PGCL which categorically submitted that its scope of work will be strictly restricted to the provisions of the Section-18B of the NEPRA Act without any exception. Regarding the observations about the limitations/constraints of NTDC and DISCO(s) stated in the application which the XW-DISCO(s) considered as general, mostly baseless and without any evidence, the Authority is of the view the same is reality and cannot be denied and the main reason for the same is the lack of funds, human resource and other procedural difficulties which are generally associated with entities having a huge scope to cover as in the case of NTDC and XW-DISCO(s). The Authority is of the considered opinion that there is a need to have more entities that are able to supplement the efforts of existing companies.



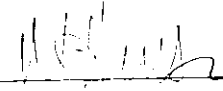
(xv). About the emphasis of GEPCO and MEPCO for providing the details of the RE and other conventional projects delayed due to NTDC and DISCO(s) and the comments about the political interference, PGCL has made its submissions and the Authority considers that the same as pragmatic and need no further discussion/deliberation. Regarding the observations of GEPCO/MEPCO that the indicated projects in the scope of work pertain to NTDC/DISCO(s) without identification of new scope, the Authority has considered the same and is satisfied that PGCL has identified different projects to be executed as PGC subject to inclusion of the same in the TSEP. With regard to the comments of GEPCO and MEPCO that PGCL has failed to provide professionally designed/formulated "project selection criteria", the Authority has considered the submissions and is of the view that provided details on the selections of the projects are adequate. With regards to the details of primary resources, i.e. manpower (technical, administrative, support, Linemen, Assistant Linemen, Foremen etc.), PGC has submitted its detailed organogram in the matter. Further to the said, PGCL has also confirmed that additional human resources will be hired if there is a need for the same and the Authority concurs with the arguments. About the comments of FESCO that in terms of the NEP-2021, the responsibility for the centralized TSEP is with NGC/NTDC, the Authority considers that there is no ambiguity in the matter in terms of the provisions of the said policy and the related plan and therefore it is hereby reiterated that the said entity i.e. NGC/NTDC will act as focal entity for the centralized TSEP. In view of the above, the observations of the different stakeholders stand addressed.

(xvi). In view of the foregoing, the Authority hereby approves the grant of Transmission Licence to PGCL to act as PGC for the province of the Punjab, on the terms and conditions set out in the licence annexed to this determination. The grant of this licence will be subject to the provisions contained in the NEPRA Act, relevant rules, regulations framed thereunder and other applicable documents.

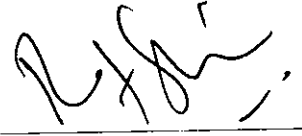


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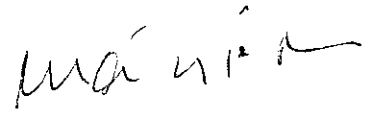
Engr. Maqsood Anwar Khan
(Member)



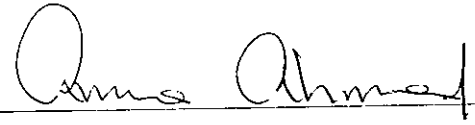
Engr. Rafique Ahmed Shaikh
(Member)



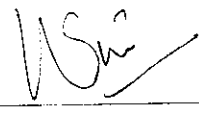
Engr. Mathar Niaz Rana (nsc)
(Member)

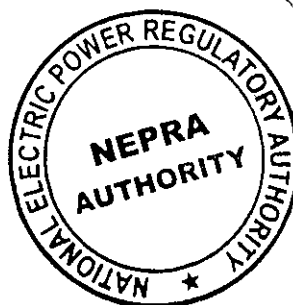



Amina Ahmed
(Member)



Engr. Waseem Mukhtar
(Chairman)





 8/11/23

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

Islamabad – Pakistan

**TRANSMISSION LICENCE/
PROVINCIAL GRID COMPANY**

No. PGCL/03/2023

In exercise of the powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section-18A of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, as amended or replaced from time to time, the Authority hereby grants Transmission Licence as Provincial Grid Company to the company having particulars as follows: -

PUNJAB GRID COMPANY LIMITED

Incorporated Under Section-16 of the
Companies Act, 2017 (XIX of 2017) Having Corporate Universal Identification No.
0219574, dated January 03, 2023

to engage in Transmission Business for its Different Projects to be Executed as a Provincial Grid Company in the Province of Punjab subject to and in accordance with the Articles of this Licence.

Given under my hand on 08th day of November Two Thousand & Twenty Three and expires on 07th day of November Two Thousand & Fifty-Three.

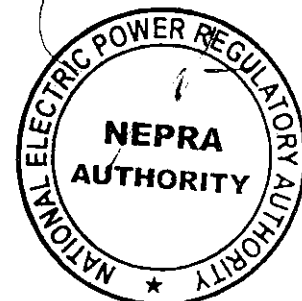

Registrar



Article-1 **Definitions**

1.1 In this Licence unless there is anything repugnant in the subject or context:

- (a). "**Act**" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997) as amended from time to time;
- (b). "**Affiliate**" in relation to any person, means any person who owns or controls, or is owned or controlled by, or is under common ownership or control with, that person, and for the purpose of this definition: -
 - (i). "**control**" means the right, power or ability to influence or determine any decision in respect of the conduct of affairs of the person under control; and
 - (ii). "**ownership**" means the ownership or the right to own the shares or voting securities of the person owned;
- (c). "Ancillary Services" means the services ancillary or incidental to the safe, reliable, stable and efficient availability and utilization of electrical energy and net capacity and include without limitation, the following, namely: -
 - (i). energy imbalance service;
 - (ii). spinning reserve service;
 - (iii). supplemental reserve service;
 - (iv). reactive supply and voltage control service; and
 - (v). regulation and frequency response service;



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(d). "**Applicable Documents**" mean the Act, the rules and regulations framed by the Authority under the Act, any documents or instruments issued or determinations made by the Authority under any of the foregoing or pursuant to the exercise of its powers under the Act, the Grid Code, the applicable Distribution Code, the 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;

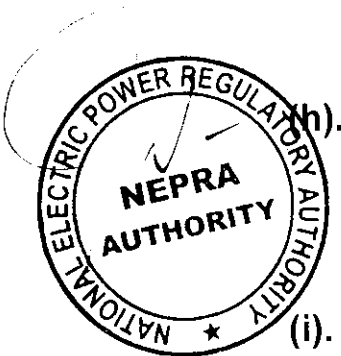
(e). "**Authority**" means the National Electric Power Regulatory Authority constituted under Section-3 of the Act;

(f). "**Commercial Code**" means the commercial code prepared CPPAGL in terms of National Electric Power Regulatory Authority (Market Operator, Registration, Standards and Procedure) Rules, 2015 as amended or replaced from time to time;

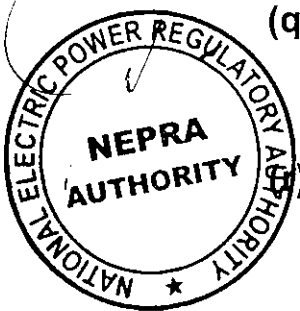
(g). "**Commercial Operations Date (COD)**" means the day immediately following the date on which the transmission facility of the Licensee is commissioned;

(h). "**CPPAGL**" means the Central Power Purchasing Agency (Guarantee) Limited or any other entity created for the like purpose;

(i). "**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;



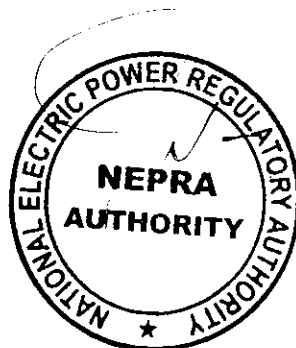
- (j). "Eligibility Criteria Rules" means the Eligibility Criteria (Transmission Licences) Rules, 2023 that the Federal Government has prescribed, as amended or replaced from time to time;
- (k). "FESCO" means Faisalabad Electric Supply Company Limited or its successors or permitted assigns;
- (l). "GEPCO" means Gujranwala Electric Power Company Limited or its successors or permitted assigns;
- (m). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;
- (n). "IESCO" means Islamabad Electric Supply Company Limited or its successors or permitted assigns;
- (o). "Laws" include all statutes, rules and regulations made pursuant thereto, judicial decisions, in each case as may be notified to the Licensee or its Affiliates;
- (p). "LESCO" means Lahore Electric Supply Company Limited or its successors or permitted assigns;
- (q). "Licence" means this transmission licence granted to the Licensee to act as Provincial Grid Company (PGC);
- (r). "Licensee" means Punjab Grid Company Limited or its successors or permitted assigns;
- (s). "MEPCO" means Multan Electric Power Company Limited or its successors or permitted assigns;



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- (t). **"NTDC"** means National Transmission and Despatch Company Limited and its successors or permitted assigns which has granted a Transmission Licence (No. TL/01/2002, dated December 31, 2002 and amended/modified from time to time) under Section-17 and Section-7(4) of the Act;
- (u). **"Public Sector Entity"** means any authority, agency, division or instrumentality of the Federal or Provincial Government or a local authority but does not include the Authority;
- (v). **"Regulations"** means the National Electric Power Regulatory Authority regulations made under Section-47 of the Act;
- (w). **"Rules"** means the National Electric Power Regulatory Authority rules made under Section-46 of the Act;
- (x). **"Transmission Business"** means the business of transmission of electric power carried on or to be carried on by the Licensee pursuant to and in accordance with the terms of this Licence in planning, development, construction and maintenance of the transmission facilities of the Licensee and operation of such facilities for the transmission of electric power including the inter-connection services;
- (y). **"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 in the Rules.



Article-2 **Grant of Licence**

2.1 This Licence is granted to the Licensee in terms of Section-18A of the Act and the Applicable Documents to engage in the transmission of electric power within the territorial limits of the province of Punjab, as set out in Schedule-I to this Licence.

2.2 The details specific to the transmission facilities of the Licensee, including length of line, transmission line type (underground/overhead), connecting grids, technical limits, technical functional specifications and other information are set out in Schedule-II of this Licence.

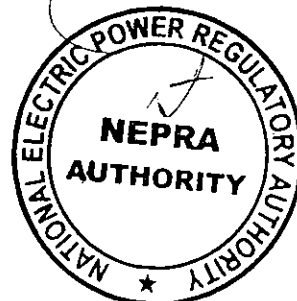
Article-3 **Licence fee**

The Licensee shall pay to the Authority the Licence fee, in the amount, manner and time specified in the relevant rules or regulations as amended or replaced from time to time.

Article-4 **Term and Renewal of Licence**

4.1 This Licence shall become effective from the date of its issuance and will have a term of thirty (30) years from the said date. The Authority may renew this Licence for such further term as deemed appropriate subject to the provisions of the relevant regulations.

4.2 While considering renewal of Licence the Authority may keep in view the performance of the Licensee during the then expiring term and the interests of consumers and the electric power industry as a whole.



Article-5

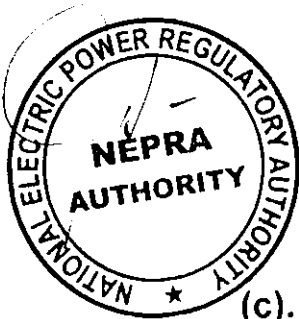
Revocation and Suspension

5.1 The Authority may suspend or revoke this Licence upon the persistent failure of the Licensee to comply with the terms and conditions of the Licence as stipulated in Section-28 of the Act.

5.2 The Authority shall determine, on a case to case basis, the degree of recurrence of a specific breach of any term or condition of this Licence, provided that a breach shall be deemed to be recurring on a daily basis where the effects of breach are continuing beyond the time of breach and no measures for rectification thereof are undertaken by the Licensee to the satisfaction of the Authority.

5.3 Subject to the provisions of Sub Article-5.2 and 5.4, the occurrence of the following events shall constitute failure of the Licensee to comply with the terms and conditions of this Licence:-

- (a). failure of the Licensee to pay the Licence fee when due;
- (b). a breach by the Licensee of any of the provisions of the Applicable Documents which materially and adversely affects the standards, price and quality of service, the reliability and integrity of the transmission facilities, distribution systems or any generation facility, or the safe and efficient operation of the electric power industry, save where such breach occurs without the willful or negligent default of the Licensee;
- (c). failure of the Licensee to prepare or adhere to any codes, programmes or manuals required to be prepared by the Licensee and, where applicable, obtain approval of the Authority, where such failure has a material adverse effect on the performance by the Licensee of its obligations under the Applicable Documents;



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(d). except for the purposes of an amalgamation, reconstruction or re-organisation of the Licensee approved by the Authority, the occurrence of any of the following events:-

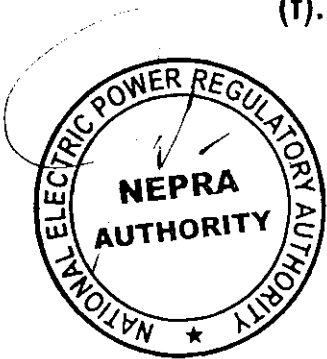
(i). the passing of a resolution by the shareholders for the winding-up of the Licensee, with the majority required under the Companies Act, 2017 (XIX of 2017), as amended or replaced from time to time, to give effect to such resolution;

(ii). the appointment of a receiver, official assignee or administrator of the affairs of the Licensee which appointment has not been set aside or stayed within ninety (90) days of the date of such appointment; or

(iii). the making by a court of competent jurisdiction of an order for the winding-up of the Licensee that has not been stayed or set aside within thirty (30) days of the date of the order;

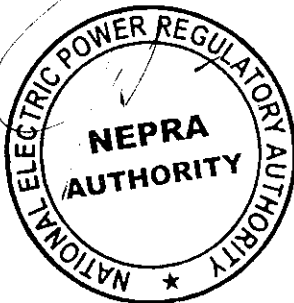
(e). abandonment by the Licensee of the operation of the Transmission Business or any part thereof;

(f). the incurring by the Licensee of cumulative operating losses in an amount which materially and adversely affects, or is likely to affect, the financial viability of the Licensee and which disables or is likely to disable the Licensee from carrying out its Transmission Business and the failure of the Licensee to implement measures for improvement of its financial position within the time limit and with the results specified in this behalf by the Authority;



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- (g). the assignment or transfer of this Licence or the transfer, conveyance, loss or relinquishment by the Licensee of the ownership or control or the right to own, control or operate the Transmission Business or any material part thereof without an authorization in accordance with the provisions of the Act or this Licence, except where such transfer, conveyance, loss or relinquishment is effected pursuant to a contract approved by the Authority for the management or operation of the transmission facilities by a person other than the Licensee;
- (h). any statement or representation made or information provided by the Licensee in the application for this Licence or subsequently on the directions of the Authority or pursuant to any Applicable Documents proving to have been incorrect, inaccurate or misleading in any material aspect and having a material adverse effect on the ability of the Licensee to perform its obligations under this Licence or causing the Authority to issue or renew this Licence in the belief of the accuracy and correctness of such statement, representation or information irrespective of whether or not the Authority would have issued this Licence if it had knowledge of the inaccuracy of such statement, representation or information;
- (i). the exercise by the lenders, if any, of the Licensee of their remedies under the documentation relating to loans by such lenders in respect of the Transmission Business, where the exercise of the remedies renders the Licensee incapable of performing its obligations in its own right under this Licence or the Applicable Documents including, without limitation, the removal of the management of the Licensee from the control of the Transmission Business and the failure of the Licensee to obtain approval of the Authority for the appointment of the successor management within one hundred and twenty (120)



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days after such removal;

- (j). any default by the Licensee in the making of any payment, other than the Licence fee, required to be made by it under the Applicable Documents within ninety (90) days of the due date thereof; or
- (k). failure of the Licensee to comply with the objects, terms and articles of this Licence due to supervening impossibility notwithstanding the best efforts of the Licensee to comply, where such non-compliance continues for a period of ninety (90) days consecutively or for a cumulative period of one hundred and twenty (120) days in a calendar year.

5.4 Notwithstanding the provisions of this Article, the Authority shall not revoke or suspend this Licence where the Licensee demonstrates to the satisfaction of the Authority that the breach of the terms of the Licence is a direct result of the failure of the Licensee to obtain consent or its renewal except where such consent is not granted or renewed because of the failure or inability of the Licensee to comply with the laws in relation to such consent or renewal and without providing an opportunity of hearing.

5.5 Any decision to suspend or revoke this Licence shall be taken in accordance with the Act and the Applicable Documents.

Article-6 **Procurement of Electric Power**

6.1 The Licensee shall ensure that neither it nor any of its Affiliates or related undertakings on its own or in concert with others purchases electric power for the purpose of sale to a third party.



6.2 The Licensee shall not take any measure to prevent or unduly delay changes to Applicable Documents to which it is a party and are required for the development of competitive electricity market and complete and timely enforcement and operation of competitive electricity market.

Article-7 **Accounting Practices and Audit**

7.1 Subject to and in accordance with the terms of this Licence, the Licensee shall prepare the accounts of its business and other businesses, if any, in accordance with the Act and the Applicable Documents.

7.2 The Licensee shall ensure that the Licensee and each of its Affiliates maintains accounting and financial reporting arrangements which enable separate accounts to be prepared for each separate business and showing the financial affairs of each such separate business as if it was a separate company so that the revenues, costs, assets, liabilities, capital, reserves and provisions of or reasonably attributed to, each separate business are separately identifiable in the books of the Licensee and its Affiliates from those of any other business, in sufficient detail.

7.3 The Licensee and any of its Affiliates shall:-

- (a). maintain and preserve the books of account and accounting records in respect of each financial year for a period of five(5) years; and
- (b). prepare on a consistent basis for such financial records in respect of each financial year, accounting statement comprising of a profit and loss account, balance sheet and a statement of source and application of funds, together with notes thereto, and showing separately in respect of each separate business and in appropriate detail the amounts of any revenue, costs, assets, liability, reserve or provision which has been either:-



- (i). charged from or to any other business, whether or not a separate business, together with a description of the basis of that charge; or
- (ii). determined by apportionment or allocation between any separate business together with a description of the basis of the apportionment or allocation.

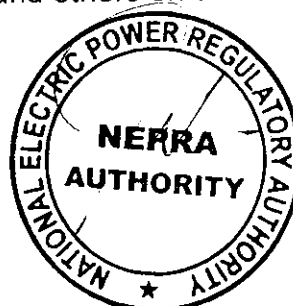
7.4 Without prejudice to the provisions of the Applicable Documents regarding the audit of the accounts of the Licensee, the Authority may, after giving the Licensee an opportunity to be heard in this regard, appoint independent auditors of national/international repute from amongst a panel of auditors specified in this behalf by the Authority through a notification in the official Gazette, for the audit of the accounts of the Licensee, where the Authority has reason(s) to believe that the accounts provided to the Authority by the Licensee do not provide a complete, true and fair view of the Transmission Business or any separate business of the Licensee, provided that such audit shall be restricted to accounting matters under question and shall not be carried out more than once in a financial year.

7.5 The costs of audit as referred to in Sub Article-7.4 shall be borne by the Licensee.

7.6 The Licensee shall ensure that the accounting statements in respect of each financial year prepared under Sub Article-7.3 (b) and report of the Auditor in respect of each financial year are made available to any person requesting them at a price not exceeding fair copying charges.

Article-8 **Open Access**

8.1 Subject to Section-18B of the Act, the Licensee shall offer its transmission and inter-connection services to NTDC and others on such terms and conditions as may be determined by the Authority.



8.2 The Licensee in consultation with NTDC shall administer access (offer to connect) to its transmission facilities in a fair, transparent and open manner setting out rules, policies, procedures and charges as described in this Licence or Applicable Documents to be developed by the Licensee and approved by the Authority.

Article-9 **Tariff**

9.1 The Licensee shall submit to the Authority a petition for determination of tariff/use of system charge in respect of its transmission business at least one hundred and eighty (180) days before starting any project.

9.2 The Authority shall determine tariff in respect of the transmission business of the Licensee pursuant to NEPRA (Tariff Standards and Procedure) Rules, 1998 (as amended or replaced from time to time).

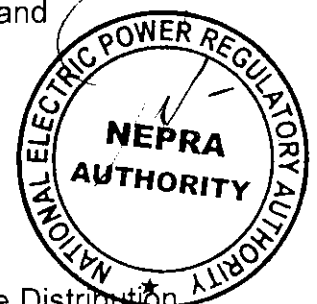
9.3 The Licensee shall make available to general public the tariff specifying the rates, charges and other terms and conditions for transmission and inter-connection services determined/approved by the Authority.

Article-10 **Grid Code**

The Licensee shall comply with the provisions, terms & conditions of the Grid Code (as amended from time to time), prepared by the NTDC and approved by the Authority.

Article-11 **Compliance with Distribution Codes**

11.1 The Licensee shall comply with the relevant provisions of the Distribution Code of the concerned distribution licensee to the extent applicable to the Licensee in the discharge of its obligations under this Licence.



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11.2 The Licensee shall comply with any request of a distribution company with respect to its obligations to comply with the Distribution Code as long as such compliance by the Licensee is not in violation of the Grid Code.

Article-12 **Commercial Code**

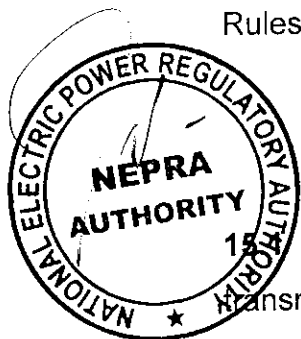
The Licensee shall comply with all relevant provisions in the Commercial Code approved by the Authority relevant to transmission, reliable operation, balancing and Ancillary Services and provision of information to CPPAGL.

Article-13 **Acquisition and Disposal of Assets**

The Licensee shall not, except under prior authorisation of the Authority, sell or dispose in any manner any tangible assets comprised in the transmission facilities or any intangible assets accruing or likely to accrue to the Licensee from the Transmission Business.

Article-14 **Compliance with Performance Standards**

The Licensee shall comply with the relevant provisions of the National Electric Power Regulatory Authority Performance Standards (Transmission) Rules, 2005, as amended or replaced from time to time.



Article-15 **Security Standard and Quality of Service**

The Licensee shall plan, construct, own, operate and maintain its transmission facilities in accordance with the Grid Code and subject to the approval of the Authority.

15.2 Within three (03) months after the end of each financial year the Licensee shall submit to the Authority a report providing details of the performance of the Licensee during the previous financial year in maintaining the security, availability and quality of service of its transmission facilities.

15.3 The criteria referred to in the Sub Article-15.2, against which the performance of the Licensee will be measured will be set out in a statement drawn up consistent with the NEPRA Performance Standards (Transmission) Rules, 2005 and approved by the Authority in consultation with the Licensee.

15.4 The Authority may following consultation with the Licensee and, where appropriate with other licensees, issue directions relieving the Licensee of its obligations under Sub Article-15.1 in respect of certain parts of the transmission facilities of the Licensee.

Article-16 **Compliance with Environmental Standards**

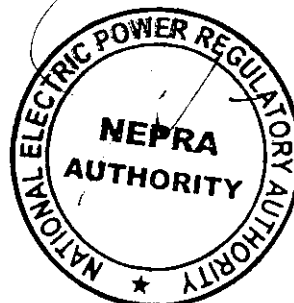
The Licensee shall conform to the environmental standards as may be prescribed by the relevant competent authority from time to time.

Article-17 **Availability of Resources**

17.1 The Licensee shall at all times act in a manner to ensure that it has sufficient management and financial resources to enable it to:

- (a). carry out the Transmission Businesses; and
- (b). comply with its obligations under this Licence, the Act and the Applicable Documents.

17.2 Not later than two (02) calendar months following the beginning of each financial year, the Licensee shall submit a statement in writing to the Authority informing the Authority of its ability (or inability as the case may be) to fulfill its obligations under the Sub Article-17.1.



17.3 The Licensee shall, as soon as it becomes aware, notify the Authority of any circumstances that may prevent it from fulfilling its obligations under the Sub Article-17.1.

Article-18 **Industry Standards and Codes of Conduct**

18.1 The Licensee shall participate in such measures and activities as may be initiated by the Authority for the development of industry standards and uniform codes of conduct.

18.2 The Licensee shall be obliged to comply with such industry standards and uniform codes of conduct which may be specified by the Authority as having a bearing on the safety, reliability, stability, integrated operability and efficiency of the whole or a material part of the electric power system.

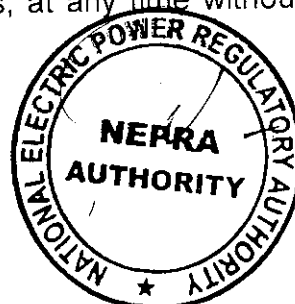
Article-19 **Insurance**

The Licensee may obtain and maintain such policies of insurance as deemed fit and appropriate in accordance with the prudent utility practices.

Article-20 **Maintenance of Records**

20.1 The Licensee shall keep complete and accurate records and data in respect of all aspects of each of its separate businesses. All such records and data shall, unless provided otherwise under the Laws or the Applicable Documents, be maintained for a period of five (05) years after the creation of such record or data.

20.2 The Authority may authorize any of its officer/professional staff to inspect documents, record and data as may be necessary to carry out the purposes of the Act and the Applicable Documents, at any time without prior notice to the Licensee.



20.3 For the purposes of Sub Article-20.2, the authorized officer/professional staff shall have full and free access to any premises, place, documents or work station and may make copy of relevant record, information and data as may be necessary for the purposes of the Act and the Applicable Documents. The Licensee shall provide all reasonable facilities and assistance to ensure the effective exercise of the right of inspection.

Article-21 **Safety to Public**

The Licensee shall plan, design, operate and maintain its transmission facilities in such a manner so as not to endanger public life or property.

Article-22 **Health and Safety of Employees**

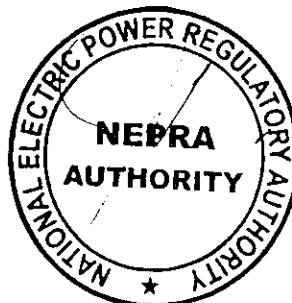
The Licensee shall arrange and maintain appropriate machinery in respect of the health and safety of the employees of Licensee at work.

Article-23 **Provision of Information to the Authority and General Public**

Pursuant to Section-44 of the Act, the Licensee shall furnish to the Authority, in such manner and at such times as the Authority may require, such information and shall procure and furnish such reports, as the Authority may require and deem necessary.

Article-24 **Eligibility Criteria**

The Licensee shall, in accordance with the provisions of the Section-18A of the Act, adhere to the provisions of the Eligibility Criteria Rules including but not limited to (a). eligibility criteria the (b). minimum solvency requirements; and (c). minimum technical and human resource requirements, without any exception.



Article-25
Responsibilities of the Licensee as Provincial Grid Company

In accordance with the provisions of the Section-18B of the Act, the Licensee shall adhere to the provisions relating to its responsibilities as provincial grid company, without any exception. The decision of the Authority in this regard shall be final.

Article-26
Bankable Feasibility Studies

The Licensee shall, carry out bankable feasibility study through renowned consultant(s) for each of its project relating to its transmission business, without any exception. The decision of the Authority in this regard shall be final.

Article-27
Scope of the Projects

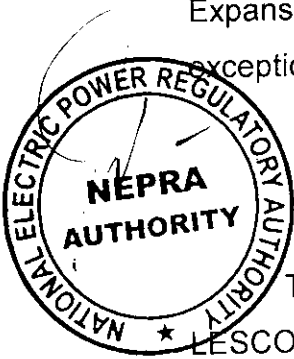
The Licensee shall consult all the relevant stakeholders including but not limited to CPPAGL, FESCO, IESCO, GEPCO, LESCO, MEPCO and NTDC to firm up the scope of its various projects relating to its Transmission Business, without any exception. The decision of the Authority in this regard shall be final.

Article-28
Adherence to Integrated Generation Capacity Expansion Plan

The Licensee shall adhere to the Integrated Generation Capacity Expansion Plan prepared by NTDC and approved by the Authority, without any exception. The decision of the Authority in this regard shall be final.

Article-29
Right of Way

The Licensee shall coordinate with NTDC, FESCO, IESCO, GEPCO, LESCO and MEPCO or any other related entity to best utilize the available right of way so that it is utilized in an optimum way without affecting the overall planning being carried out in the country. Any dispute relating to the right of way



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shall be adjudicated by the Authority and decision in this regard will be final and binding on all the stakeholders.

Article-30
Safety, Health and Environment

The Licensee shall adhere to the relevant safety, health and environment standards without any exception.

Article-31
Compliance of Commercial Code

The Licensee shall comply with the relevant provisions of the Commercial Code without any exception.

Article-32
Interpretation of the Licence Provisions

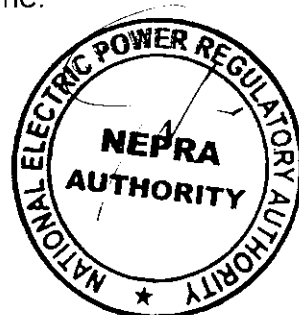
The Authority shall, in accordance with the provisions of the Act make the interpretation of any or all of the provisions of this Licence. The decision of the Authority in this regard shall be final.

Article-33
Corporate Social Responsibility

The Licensee shall comply with the NEPRA Social Investment Guidelines, 2021, as may be amended from time to time and submit a report on its activities pertaining to Corporate Social Responsibility (CSR) on an annual basis.

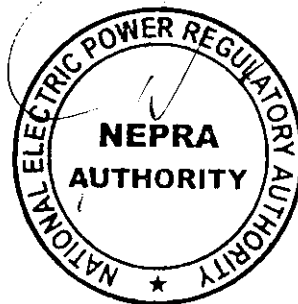
Article-34
Compliance with the Cyber Security Regulations

The Licensee shall comply with National Electric Power Regulatory Authority (Security of Information Technology and Operational Technology) Regulations, 2022 as amended from time to time.



SCHEDULE-I

The Specified Transmission Facilities the Licensee (is allowed to construct, own, maintain and operate in the province of Punjab) are set out in this Schedule

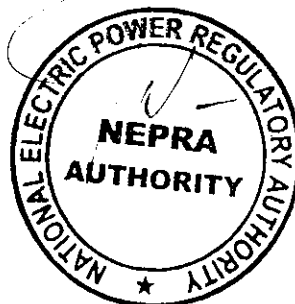


Description of **the Proposed Transmission Facilities** **of the Licensee as PGC**

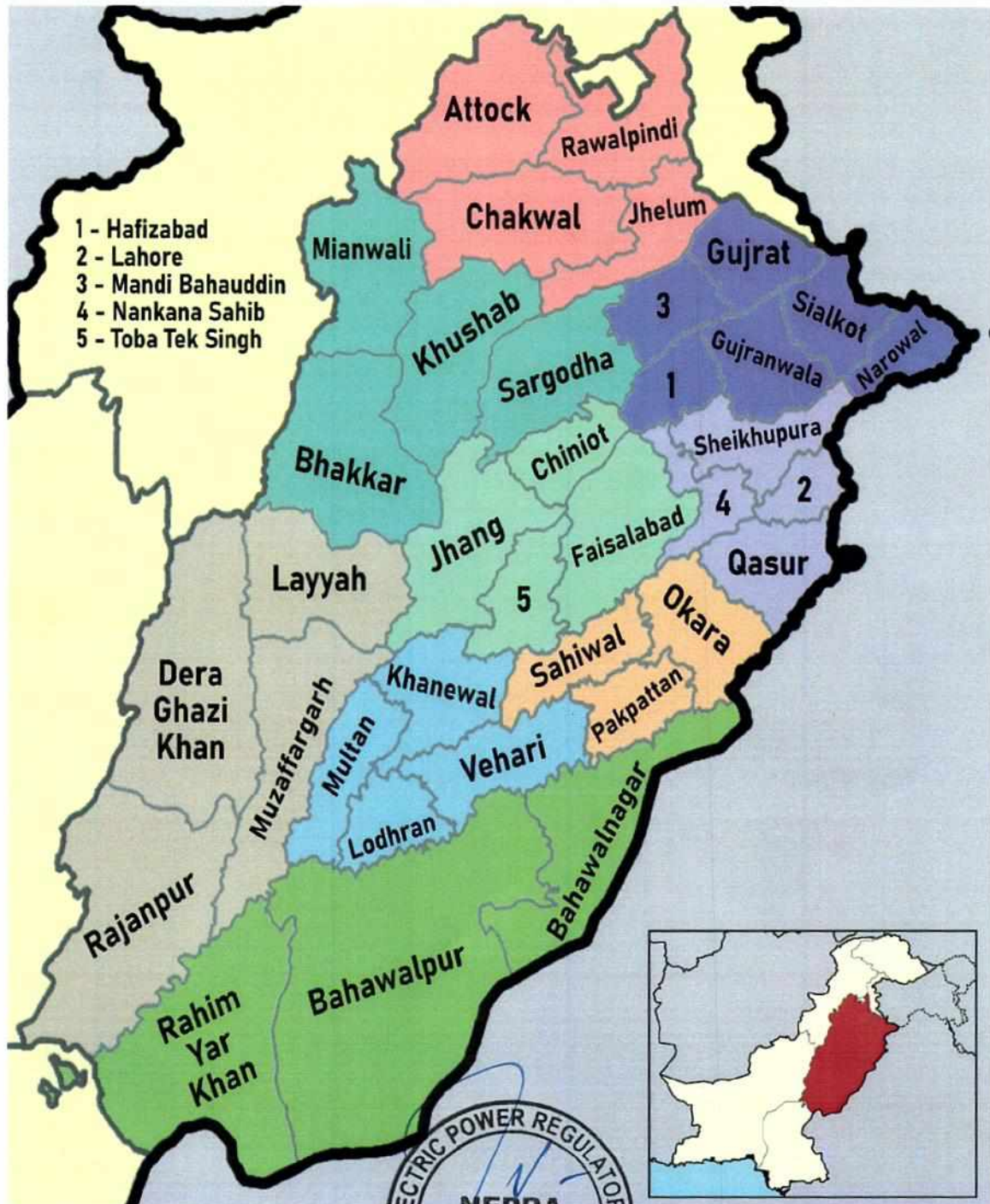
The province of Punjab is the most populous province having high commercial, agricultural and industrial activities and thus the major load centres of the country are located there. The population of the province is about 110 million which is increasing day by day and presently the demand for electricity in the province is around 18000 MW, during summer which is expected to grow substantially in future due to rapid industrialization, urbanization and lifestyle improvement and population growth.

(2). The demand of the province of Punjab is forecasted to rise exponentially in years to come to the above reasons. There are a number of existing industrial estates/Export Processing Zones [EPZ(s)]/Special Economic Zones [SEZ(s)]/Bulk Power Consumers [BPC(s)] in the province. In addition, new industrial zones are being planned in the province. Some of these are under development thereby the demand for electric power is increasing day by day. In consideration of the said, the Govt. of Punjab has embarked on an ambitious plan to tap the potential of Waste to Energy, Solar, Wind and small hydroelectric power for generation of electric power.

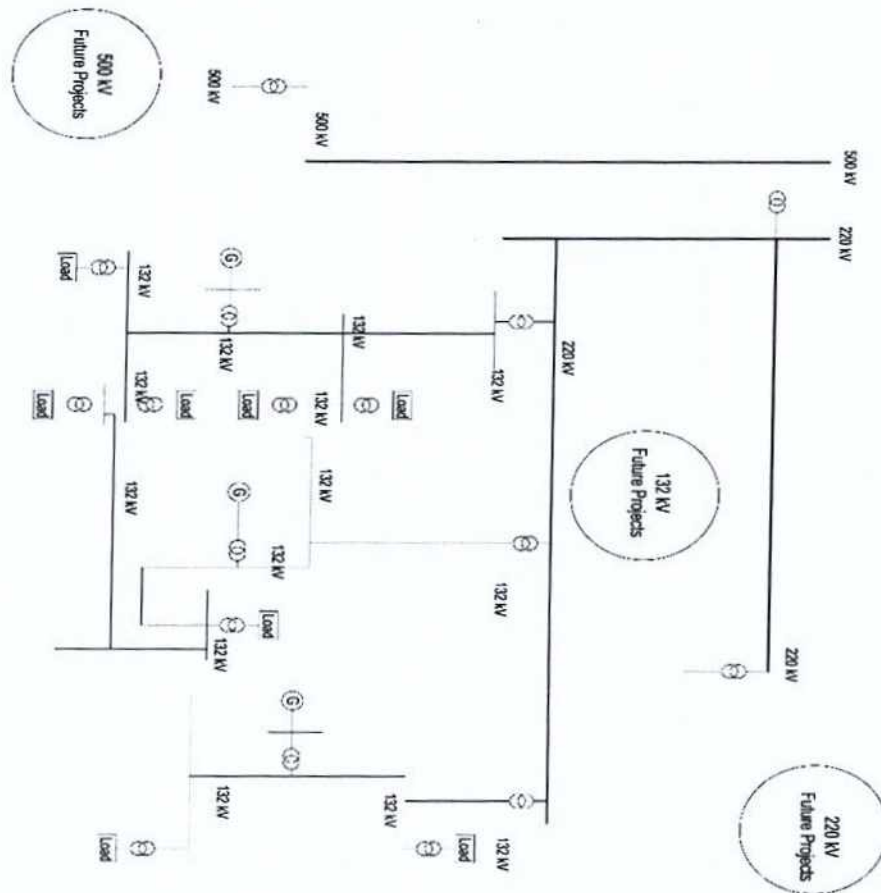
(3). The dispersal of electric power from the above mentioned resources of electric power requires network of 500 KV, 220 KV and 132 KV transmission lines to connect these generation facilities in the most optimal and integrated fashion to transport this power to reach the potential load centres. The evacuation strategy has been divided into three (03) stages and each stage further divided into various phases, which will be planned, designed and executed accordingly and under a priority list contemplated to meet needs and requirements of various stock holders.



Map of the Province of Punjab
Where the Licensee is Allowed to Work as a
Provincial Grid Company

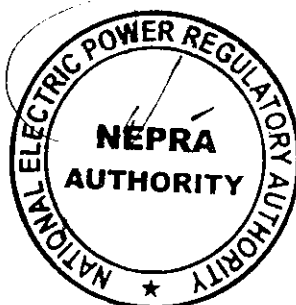


Integrated Scheme
for Interconnection/Evacuation of Electric Power
from Various Regions for Dispersal of Electric
Power from Different Solar, Wind, Waste to
Energy, thermal and Hydro Power Plants etc.) &
Transmission Facilities of the Licensee as PGC



SCHEDULE-II

The details specific to the Transmission Facilities of the Licensee, including length of line, transmission line type (overhead/ underground), connecting grids, technical limits, technical functional specifications and other information are described in this Schedule.



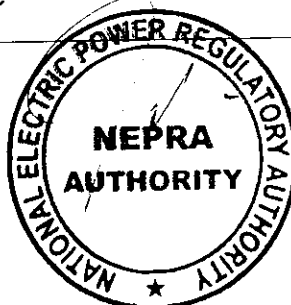
Detail of Transmission Facilities of the Licensee

(A). General Information

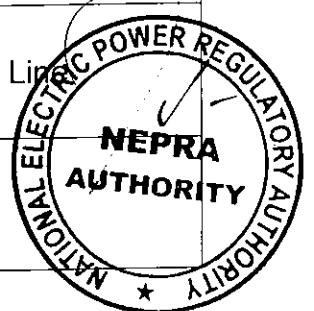
(i).	Name of Company/ Licensee	Punjab Grid Company Limited
(ii).	Registered/Business Office of the Company/Licensee	1 st floor, Irrigation Secretariat, Old Anarkali Lahore, province of Punjab
(iii).	Type of Transmission Facilities	Overhead/underground Transmission Lines-T/L(s)

(B). List of Potential Projects

Sr. No.	Name of Project
(1).	132 KV D/C Chishtian Solar Plant to Bahawalpur Industrial Estate Transmission Line
(2).	132 KV D/C Chishtian Solar Plant to Multan Industrial Estate Transmission Line
(3).	132 KV D/C Chishtian Solar Plant to Muzaffargarh Industrial Estate Transmission Line
(4).	132 KV D/C Chishtian Solar Plant to Vehari Industrial Estate Transmission Line
(5).	132 KV D/C Chishtian Solar Plant to Okara Industrial Estate Transmission Line



(6).	132 KV D/C Chishtian Solar Plant to Chunnian Aqua Business Park Transmission Line
(7).	132 KV D/C Taunsa to Multan Industrial State Transmission Line
(8).	132 KV D/C Multan Industrial State to Vehari Industrial State Transmission Line
(9).	132 KV D/C Taunsa to DGK Industrial State Transmission Line
(10).	132 KV D/C Rojhan to RYK Industrial State Transmission Line
(11).	132 KV D/C Rojhan to New Grids Areas Transmission Lines
(12).	132 KV D/C Reshma Power Plant to Sundar Industrial Estate Transmission Line
(13).	132 KV D/C Reshma Power Plant to Orange Line Authority Lahore Transmission Line
(14).	220 KV D/C H.Faqirian – Ludewala Transmission Line
(15).	220 KV D/C Nokhar (500 kV) – Gujranwala-II Transmission Line
(16).	220 KV D/C Chishtian – Vehari S/C at Lal Sohanra Transmission Line
(17).	220 KV D/C Sialkot New – Sialkot (Sahuwala) Transmission Line
(18).	220 KV D/C Sialkot New – Gujranwala-II Transmission Line
(19).	220 KV D/C Qasimpur – Multan Transmission Line



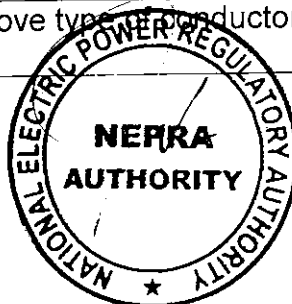
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(20).	500 S/C Maira – Islamabad West Transmission Line
(21).	500 KV S/C Sialkot New – Lahore North Transmission Line
(22).	500 KV S/C Ludewala – Faisalabad West Transmission Line

(C). Material for 132 KV Transmission Lines

Sr. No.	Type of Material ¹	Quantity/Bill of Quantities
(1).	Suspension/Normal Towers (ZM-1° or Equivalent as per specification of FESCO/GEPSCO/IESCO/LESCO/MEPCO/NTDC)	As per Actual Survey/decided route/The quantities will be firmed after actual survey and related activities
(2).	Light Angle Towers (ZM-30° or Equivalent as per specification of FESCO/GEPSCO/IESCO/LESCO/MEPCO/NTDC)	-Do-
(3).	Heavy Angle Towers (ZM-60° or Equivalent as per specification of FESCO/GEPSCO/IESCO/LESCO/MEPCO/NTDC)	-Do-
(4).	ACSR/AASC Conductor for Transmission Line(s) (LYNX/RAIL/GREELY/CAIRO or Equivalent as per specification of FESCO/GEPSCO/IESCO/LESCO/MEPCO/NTDC)	-Do-
(4).	Single Suspension Strings for above type of conductor(s) for Suspension/Normal Towers (ZM-1° or Equivalent as per specification of FESCO/GEPSCO/IESCO/LESCO/MEPCO/NTDC)	-Do-
(5).	Single Tension Strings for Angle Towers (ZM-30°/ZM-60° or Equivalent as per specification of FESCO/GEPSCO/IESCO/LESCO/MEPCO/NTDC)	-Do-
(6).	Mid Span Joints for above type of conductor(s) (as per specification of	-Do-

¹ Indicative detail only

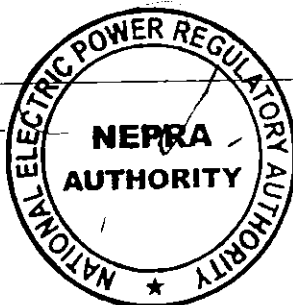


	FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	
(7).	Repair Sleeve Joints for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(8).	Stock Bridge Dampers for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(9).	Earth Wire for above (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(10).	Single Suspension Strings for above type of Earth wire(s) for Suspension/Normal Towers (ZM-1° or Equivalent as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(11).	Single Tension Strings for above type of Earth wire(s) for Angle Towers (ZM-30°/ZM-60° or Equivalent as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(12).	Mid Span Joints for above type of Earth wire(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(13).	Repair Sleeve Joints for above type of Earth wire (s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(14).	Stock Bridge Dampers for above type of Earth wire (s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-

(D). Material for 220 KV Transmission Lines

Sr. No.	Type of Material ²	Quantity/Bill of Quantities
(1).	Suspension/Normal Towers (EA° or Equivalent as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	As per Actual Survey/decided route/The quantities will be firmed after actual survey and related activities

² Indicative detail only



(2).	Light Angle Towers (ED/EG or Equivalent as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(3).	Heavy Angle Towers (JKD or Equivalent as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(4).	ACSR/AASC Conductor for Transmission Line(s) (RAIL/GREELY or Equivalent as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(4).	Single/Double Suspension Strings for above type of conductor(s) for Suspension/Normal Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(5).	Single/Double Tension Strings for Angle Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(6).	Mid Span Joints for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(7).	Repair Sleeve Joints for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(8).	Stock Bridge Dampers/Spacer Dampers for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(9).	Earth Wire for above (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(10).	Single Suspension Strings for above type of Earth wire(s) for Suspension/Normal Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(11).	Single Tension Strings for above type of Earth wire(s) for Angle Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(12).	Mid Span Joints for above type of Earth wire(s) (as per specification of	-Do-

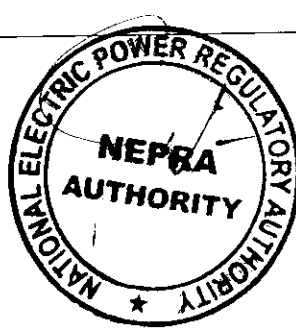


	FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	
(13).	Repair Sleeve Joints for above type of Earth wire (s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(14).	Stock Bridge Dampers for above type of Earth wire (s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-

(E). Material for 500 KV Transmission Lines

Sr. No.	Type of Material ³	Quantity/Bill of Quantities
(1).	Suspension/Normal Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	As per Actual Survey/decided route/The quantities will be firmed after actual survey and related activities
(2).	Light Angle Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(3).	Heavy Angle Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(4).	ACSR/AASC Conductor for Transmission Line(s) (RAIL/GREELY or Equivalent as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(4).	Single/Double Suspension Strings for above type of conductor(s) for Suspension/Normal Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(5).	Single/Double Tension Strings for Angle Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(6).	Mid Span Joints for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-

³ Indicative detail only



(7).	Repair Sleeve Joints for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(8).	Spacer Dampers for above type of conductor(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(9).	Earth Wire for above (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(10).	Single Suspension Strings for above type of Earth wire(s) for Suspension/Normal Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(11).	Single Tension Strings for above type of Earth wire(s) for Angle Towers (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(12).	Mid Span Joints for above type of Earth wire(s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(13).	Repair Sleeve Joints for above type of Earth wire (s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-
(14).	Stock Bridge Dampers for above type of Earth wire (s) (as per specification of FESCO/GEPCO/IESCO/LESCO/MEPCO /NTDC)	-Do-

