



National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/R/LAT-01/6674-94

March 21, 2023

Rana Abdul Jabbar Khan
Managing Director
National Transmission & Despatch Company Limited
414-WAPDA House
Lahore

**Subject: Modification Transmission Licence No. TL/01/2002 (Modification-III)
Licence Application No. LAT-01
National Transmission & Despatch Company Limited, (NTDC)**

Reference: NTDC's LPM submitted vide letter No. MD(NTDC)/3044 dated 21.12.2022

It is intimated that the Authority has approved Modification - III in Transmission Licence No. TL/01/2002 dated December 31, 2002 in respect of National Transmission & Despatch Company Limited (NTDC) pursuant to Section 26 of the NEPRA Act read with Regulation 10(11) of the NEPRA Licensing Regulations.

2. Enclosed please find herewith determination of the Authority in the matter of Licensee Proposed Modification of NTDC alongwith Modification-III duly approved by the Authority in the Transmission Licence No. TL/01/2002.

Enclosure: As Above


(Engr. Mazhar Iqbal Ranjha)

Copy to:

1. Secretary, Power Division, Ministry of Energy, 'A' Block, Pak Secretariat, Islamabad
2. Secretary, Ministry of Planning & Development, Government of Pakistan, 'P' Block, Pak Secretariat, Islamabad
3. Secretary, Ministry of Finance, Government of Pakistan, 'Q' Block, Pak Secretariat, Islamabad
4. Secretary, Energy Department, Government of Punjab, EFU House, 8th Floor, 6-D Jail Road, Lahore
5. Secretary, Energy Department, Government of Sindh, State Life Building -3, Dr. Zia-ud-din Ahmed Road, Karachi
6. Secretary, Energy & Power Department, Government of Khyber Pakhtunkhwa, Block-A, 1st Floor, Abdul Wali Khan Multiplex, Civil Secretariat, Peshawar
7. CEO, Central Power Purchasing Agency (Guarantee) Ltd, 73 East, A.K. Fazl-ul-Haq Road, Blue Area, Islamabad
8. Managing Director, Private Power & Infrastructure Board (PPIB), Ground & 2nd Floors, Emigration Tower, Plot No. 10, Mauve Area, Sector G-8/1, Islamabad
9. Chief Executive Officer, Alternative Energy Development Board (AEDB), 2nd Floor, OPF Building, G-5/2, Islamabad

P-1/2

- | | |
|--|--|
| 10. Chief Executive Officer Lahore Electric Supply Company (LESCO) 22-A, Queen Road, Lahore | 11. Chief Executive Officer Gujranwala Electric Power Company (GEPCO) 565/A, Model Town, G.T Road, Gujranwala |
| 12. Chief Executive Officer Multan Electric Power Company (MEPCO) NTDC Colony, Khanewal Road, Multan | 13. Chief Executive Officer Peshawar Electric Supply Company (PESCO) NTDC House, Shami Road, Peshawar |
| 14. Chief Executive Officer K Electric Limited (KEL) KE House, 39 B Main Sunset Boulevard, DHA Phase-II, Karachi | 15. Chief Executive Officer Quetta Electric Supply Company (QESCO) Zarghoon Road, Quetta |
| 16. Chief Executive Officer Islamabad Electric Supply Company (IESCO) IESCO Head Office Street 40 Sector G-7/4, Islamabad | 17. Chief Executive Officer Faisalabad Electric Supply Company (FESCO) Abdullahpur, Canal Bank Road, Faisalabad |
| 18. Chief Executive Officer Sukkur Electric Supply Company (SEPCO) Old Thermal Power Station, Sukkur | 19. Chief Executive Officer Hyderabad Electric Supply Company (HESCO) HESCO Headquarter WAPDA Complex, Hussainabad, Hyderabad |
| 20. Chief Executive Officer Tribal Areas Electricity Supply Company (TESCO) 213-NTDC House Shami Road, Peshawar | |

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

TRANSMISSION LICENCE

No. TL/01/2002

In exercise of the powers conferred under Section-26 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, as amended from time to time, the Authority hereby modifies the Transmission Licence (No. TL/01/2002 dated December 31, 2002, with subsequent Modification-I dated April 11, 2014 and Modification-II dated May 29, 2015) granted to National Transmission and Despatch Company Limited, to the extent of changes mentioned hereunder:

- (a). Changes made in **Articles** of the Transmission Licence are attached as **Revised/Modified Articles**;
- (b). Changes made in **Schedule-I** of the Transmission Licence are attached as **Revised/Modified Schedule-I**; and
- (c). Changes made in **Schedule-II** of the Transmission Licence are attached as **Revised/Modified Schedule-II**.

This **Modification-III** is given under my hand on this 21ST **day** of **March** **Two Thousand & Twenty Three** and shall come into force from the effective date of the System Operator Licence (No. SOL/01/2023).



Registrar

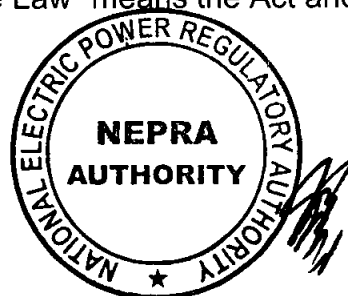




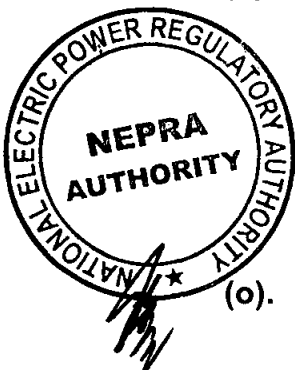
Article-1
Definitions

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

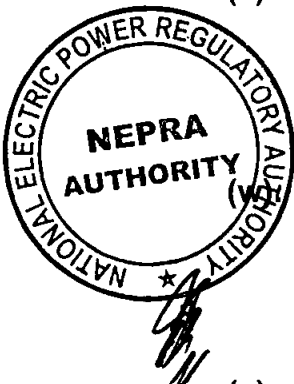
- (a).** "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997) as amended from time to time;
- (b).** "affiliate" in relation to any person, means any person who owns or controls, or is owned or controlled by, or is under common ownership or 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).** "Applicable Documents" means the rules, regulations, terms and conditions of any licence, registration, authorisation, determination, any codes, manuals, directions, guidelines, orders, notifications, agreements and documents issued or approved under the Act;
- (d).** "authorised electricity operator" means any person other than the Licensee, who is authorised by the Authority through a licence or otherwise for the purpose of using the Transmission System of the Licensee;
- (e).** "Authority" means the National Electric Power Regulatory Authority constituted under Section 3 of the Act;
- (f).** "Applicable Law" means the Act and the Applicable Documents;



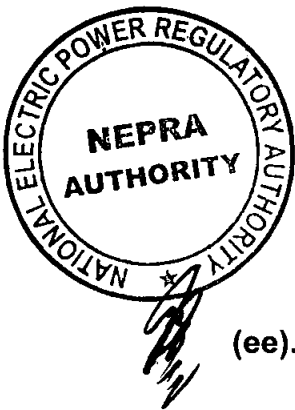
- (g). "Associated Company" or "Associated Undertakings" shall have the same meanings as assigned to them in the Companies Act, 2017 (Act No. XIX of 2017);
- (h). "CMOD" or "Competitive Market Operation Date" means the date on which the competitive trading under CTBCM shall commence;
- (i). "CTBCM" or "Competitive Trading Bilateral Contract Market" means electric power market established in accordance with the high-level and detailed designs approved by the Authority vide its determinations dated December 05, 2019 and November 12, 2020, respectively, as may be amended by the Authority from time to time;
- (j). "Commercial Code" or "Market Commercial Code" means the commercial code prepared and maintained by the Market Operator pursuant to Sections 23A and 23B of the Act and approved by the Authority from time to time;
- (k). "consents" means all permissions or approvals required from any public sector entity;
- (l). "Core Business" means each of the transmission business and tie-line business;
- (m). "CPPA-G" means the Central Power Purchasing Agency (Guarantee) Limited;
- (n). "Distribution Code" means the code prepared by the distribution licensees and approved by the Authority, which defines the technical and operational standards and procedures for distribution licensees and all those connected to the system of distribution licensees;
- (o). "encumbrance" means any mortgage, charge, right of possession, assignment by way of security or other form of security interest;

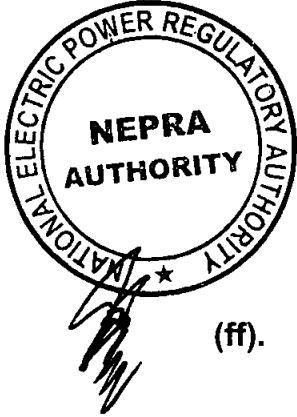


- (p). "Grid Code" means the grid code prepared and maintained by the Licensee under Section 23G of the Act, and approved by the Authority;
- (q). "laws" include all statutes, rules and regulations made pursuant thereto, judicial decisions, administrative practices or directions having the force of law in Pakistan, in each case as may be applicable to the Licensee or its affiliates;
- (r). "Licence" means this Transmission Licence granted to the Licensee to act as a National Grid Company;
- (s). "Licensee" means **"National Transmission and Despatch Company Limited"** to whom this Licence is granted;
- (t). "Licensing Regulations" means the National Electric Power Regulatory Authority (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 as amended or replaced from time to time;
- (u). "PGC" or "Provincial Grid Company" means any person who has been granted transmission licence under Section 18A of the Act to engage in transmission business for its projects in the respective province;
- (v). "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 and other enabling provisions of the Act;
- (x). "Rules" means the National Electric Power Regulatory Authority rules made under Section 46 of the Act;



- (y). "separate business" means each of the transmission business of the Licensee, tie-line business of the Licensee, and any other business of the Licensee, undertaken separately;
- (z). "System Operations" means the functions, system operations, power system planning and responsibilities to be performed and discharged by the System Operator in accordance with provisions of the National Electric Power Regulatory Authority Licensing (System Operator) Regulations, 2022, as amended or replaced from time to time, the Grid Code, the Act, and other Applicable Documents;
- (aa). "System Operator" means a person licensed under the Section 23G of the Act to administer System Operations, Dispatch and Power System Planning;
- (bb). "tie-line" means interconnection facility which connects two different transmission zones in the power system, including cross border transmission lines;
- (cc). "Total System" means the Transmission System of the Licensee and the transmission and distribution systems of all authorised electricity operators located in Pakistan;
- (dd). "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 System of the Licensee and operation of such system for the transmission of electric power including interconnection services;
- (ee). "Transmission System" means one or more systems comprising electrical facilities including, without limitation, electrical lines or circuits, electrical plant, transformers, substations, switches, meters, interconnection facilities or other facilities operating at or





above minimum transmission voltage constructed, owned, managed, controlled or operated by the Licensee or by one or more special purpose transmission licensees and used for transmission of electric power from the generation facility to sub-stations or to or from other generation facilities or between substations or to or from any interconnection facilities or from the distribution facilities of one licensee to the distribution facilities of another licensee or from a generation facility to a distribution facility or a Bulk Power Consumer (BPC);

(ff). "Transmission System Expansion Plan" or "TSEP" means the plan for expansion of the transmission capacity prepared in accordance with the Grid Code and approved by the Authority;

(gg). "use of transmission system charges" means the charges made or levied or to be made or levied by a transmission licensee for the use of its transmission system, as determined by the Authority, for the purposes of the transmission services but shall not include connection charges.

1.2 Words and expressions used but not defined herein shall bear the meaning given thereto in the Act and the Applicable Documents.

Article-2 **Grant of Licence**

2.1 This Licence is granted to the Licensee to engage in the transmission business within the territory as set out in Schedule-I to this Licence.

2.2 The details specific to the Transmission System 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.

2.3 The Licensee shall comply with and adhere to the relevant rules, regulations, directions and orders as may be prescribed or issued by the Federal Govt. or the Authority from time to time.

2.4 For the purpose of this Licence the minimum transmission voltage is declared to be 220 kV and above. Provided that such other voltage levels may be considered for the generation facilities connected directly or indirectly to the Transmission System of the Licensee pursuant to Section 14B(4) of the Act.

2.5 This Licence is granted subject to the provisions of the relevant rules and regulations as amended from time to time.

Article-3
Functions of the Licensee

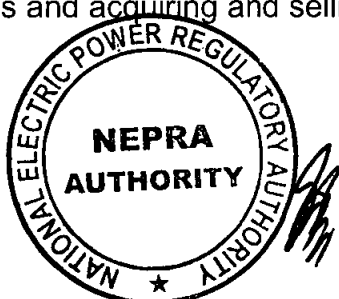
3.1 As provided in Section 18 of the Act, the Licensee as National Grid Company shall be responsible for operating and providing safe, reliable transmission and inter-connection services on a nondiscriminatory basis, including to a BPC who proposes to become directly connected to its facilities.

3.2 Without prejudice to the responsibilities mentioned in Article-3.1, the Licensee shall:

- (a). make available to the general public the tariffs specifying the Authority's approved rates, charges and other terms and conditions for transmission and inter-connection services;
- (b). 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;
- (c). not cause a division or any associated undertaking to engage in generation and distribution;

Provided that this clause shall not apply to the KESC and WAPDA so long as their electric systems remain integrated;

- (d). develop, maintain and publicly make available, with the prior approval of the Authority, an investment programme for satisfying its service obligations and acquiring and selling its assets.



Article-4
Licence fee

The Licensee shall pay to the Authority the licence fee, in the amount, manner and time specified in the National Electric Power Regulatory Authority (Fees) Regulations 2021 as amended or replaced from time to time.

Article-5
Term and Renewal of Licence

5.1 This Licence is effective and valid for a term of thirty (30) years from the date of its issuance i.e. December 31, 2002.

5.2 If the Licensee intends to renew the term of this Licence at the expiry of the term, it shall submit to the Authority an application for renewal of its Licence ninety (90) days prior to the expiry of the current term.

5.3 The application for renewal of Licence shall be accompanied with such documents, information and evidence as may be required under the Act and the Applicable Documents.

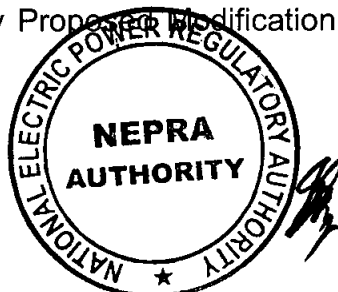
5.4 In the event the Authority decides to grant an application for renewal of Licence, the Authority may renew the Licence on such revised terms and conditions as the Authority deems appropriate in accordance with the Act and the Applicable Documents at the time of renewal of the Licence.

5.5 The Authority may grant or refuse an application for renewal of Licence after recording the reasons in writing therefor.

Article-6
Modification of Licence

6.1 The Licensee may, at any time during the term of the Licence, request a modification in this Licence from the Authority in accordance with the relevant provisions of the Act and the Licensing Regulations.

6.2 The Authority may at any time during the term of this License, communicate to the Licensee an Authority Proposed Modification or a Modification by Operation of

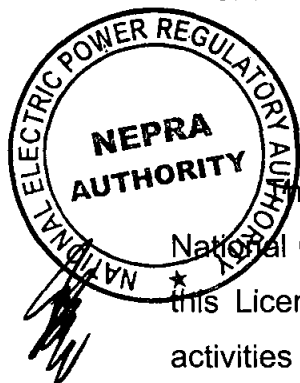


Law in accordance with the relevant provisions of the Act and the Licensing Regulations.

Article-7
Transfer and Assignment of Licence

The Licensee shall not, without prior written approval of the Authority, surrender, assign or transfer its Licence to any other person, as stipulated in Section 27 of the Act.

Article-8
Exclusivity



The Licensee shall during the term of this Licence have the exclusive right as National Grid Company in respect of the Service Territory specified in Schedule-I of this Licence to (a). carry out transmission of electric power; (b). engage in other activities incidental to the transmission business; (c). coordinate with Provincial Grid Companies in accordance with the Act, Grid Code and other Applicable Documents and (d). coordinate with special purpose transmission licensees in accordance with the Act, Grid Code and other Applicable Documents.

Article-9
Obligations with Respect to CTBCM

9.1 The Licensee shall facilitate the development of a liquid and efficient competitive electric power market and may submit to the Authority any proposals in furtherance of this objective.

9.2 The Licensee shall not engage in any activity that may disrupt or impede competition in the market.

Article-10
Availability of Resources

10.1 The Licensee shall, while maintaining functional separation as required in Article-19 of this Licence, employ the required number of qualified personnel as may be prudent to ensure that the operation of its Transmission System is conducted effectively, efficiently, reliably, and prudently.

10.2 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 Business; and
- (b). comply with its obligations under this Licence, the Act and the Applicable Documents.

10.3 The Licensee shall maintain the required and adequate capacity for training and professional development of its staff.

10.4 No 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 Article-10.2.

10.5 The Licensee shall, as soon as it becomes aware, notify the Authority of any circumstances that may prevent it from fulfilling its obligations under Article-10.2.

Article-11

Provision of Information to the Authority and General Public

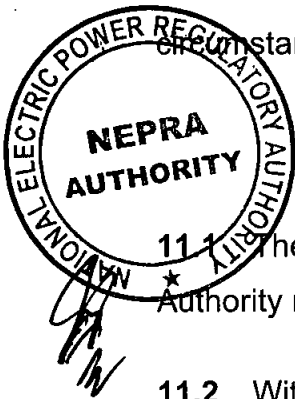
11.1 The Licensee shall provide all such information, in such a manner and time as the Authority may require from time to time in accordance with Section 44 of the Act.

11.2 Without prejudice to Article-11.1, the Authority may direct the Licensee to furnish the Authority with accounting information that is more extensive than or differs from that required to be prepared and supplied to the Authority under Article-24.

11.3 The Licensee shall provide information to any person requesting such information, which is necessary and required by that person for carrying out analysis or contracts for the provisions under this Licence.

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

11.5 The Licensee shall publish all information that is necessary to ensure



transparency of its operations on its website in order for it to be easily available to the users of its Transmission System and other interested parties.

11.6 The Licensee shall keep confidential the information of Grid Code users, licensees and registered entities through a combination of appropriate controls, security, transparency, and consent mechanisms relating to the collection and use of their personal data.

11.7 The Licensee shall establish an information exchange system to collect, organize and process data received from the users of its Transmission System, the Market Operator and other relevant entities.

11.8 The Licensee shall submit progress reports to the Authority on the status of activities and projects being undertaken and, where required by the Authority and Applicable Law, publish the required reports in an appropriate manner.

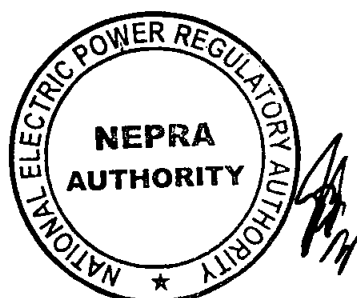
11.9 The Licensee shall submit an annual report to the Authority within one (01) month of the close of the financial year and shall also make the same available on its website.

11.10 The Licensee shall make available its audit reports and financial statements on its website in a timely manner.

Article-12 **Compliance with the Applicable Law**

12.1 The Licensee shall comply with the Act and the Applicable Documents, as amended or replaced from time to time, while performing its functions as the National Grid Company.

12.2 The Licensee shall be obligated to follow and comply with the relevant rules and regulations in letter and spirit, as if all provisions of the said rules and regulations are incorporated in the terms and conditions of this Licence.



Article-13
Compliance with Health, Safety and Environmental Standards

13.1 The Licensee shall plan, design, operate and maintain its Transmission System in conformation to the health, safety and environmental standards as may be issued by the relevant competent authority from time to time.

13.2 The Licensee shall invariably comply with the Power Safety Code as approved and amended by the Authority from time to time.

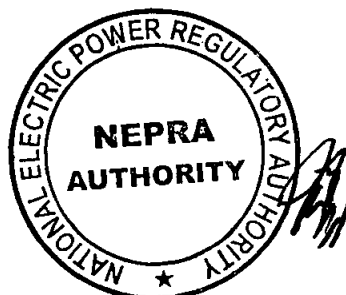
Article-14
Corporate Social Responsibility

The Licensee shall comply with the NEPRA Social Investment Guidelines, 2021 and provide the descriptive as well as monetary disclosure of its activities pertaining to corporate social responsibility on an annual basis.

Article-15
Investigations, Fines and Penalties

15.1 Without prejudice and in addition to the powers of the Authority under the Act, and rules and regulations made thereunder, where the Authority determines that the Licensee is in violation of any Applicable Law or the terms and conditions of this Licence, the Authority may:

- (a). investigate the violation as per Section 27A of the Act;
- (b). order the Licensee to:
 - (i). cease a specific activity; or
 - (ii). direct its external auditor to report directly to the Authority;
- (c). appoint and engage an external auditor to review the operations and compliance of the Licensee with Applicable Laws and this Licence;
- (d). appoint an administrator to take over the functions of the Licensee for such time or until such event as the Authority may approve; or

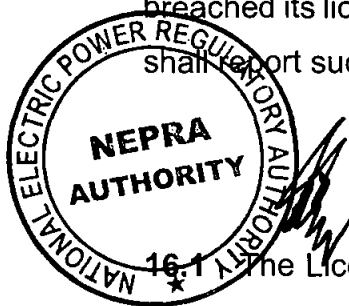


- (e). increase the reporting requirements of the Licensee on any matter related to its technical and financial performance or related to service quality.

15.2 Any contravention or non-compliance on the part of the Licensee or any of its officers with respect to this Licence, or the terms and conditions and time limits prescribed herein, shall constitute grounds for initiating penal action by the Authority.

15.3 Any instrument, document, contract or agreement, or any part thereof, may be declared void if executed in contravention or non-compliance of this Licence, the provisions of the Act, the rules and regulations made thereunder, or any other Applicable Documents.

15.4 Where it comes to the attention of the Licensee that any other person has breached its licence or registration or violated any Applicable Document, the Licensee shall report such non-compliance to the Authority.



Article-16 **Tariff**

16.1 The Licensee shall not levy any tariff, fee, rate or charge which has not been approved/specified by the Authority. The Licensee shall submit to the Authority an application for determination/modification of charges and revenue requirements in respect of its transmission business.

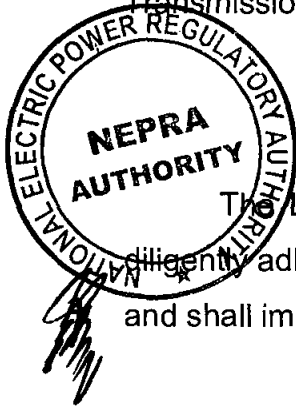
16.2 The Authority shall determine the tariff in respect of the transmission business of the Licensee pursuant to NEPRA (Tariff Standards and Procedure) Rules, 1998 (as amended or replaced from time to time). The Licensee shall make available to the general public the tariff specifying the rates, charges and other terms and conditions for transmission and interconnection services approved by the Authority. The revenue requirement of the Licensee may be determined by the Authority periodically on an annual or multi-year basis as deemed appropriate.

Article-17 **Communication System**

17.1 The Licensee shall ensure the deployment of Supervisory Control and Data Acquisition (SCADA) and other necessary tools for effective and efficient System

Operations within a period of one (01) year from the effective date of the System Operator Licence.

17.2 The Licensee shall operate, maintain, expand and upgrade the SCADA system from time to time, as per the requirements arising on account of the operation of its Transmission System.



Article-18 **Risk Management**

The Licensee shall, subject to the provisions of this Licence, promptly and diligently adhere to all reasonable risk-management and risk containment measures, and shall implement risk-mitigation measures.

Article-19 **Functional and Legal Separation**

19.1 The functional and legal separation of the Licensee as a National Grid Company shall be undertaken in accordance with the provisions of this Licence, determination and directions of the Authority, as issued from time to time.

19.2 The Licensee shall, at the earliest but not later than two (02) years from the effective date of the System Operator Licence, separate the functions of System Operator from its existing role as part of the National Grid Company, into two distinct legal entities. In the event, these two functions are not separated into two distinct legal entities as stated above, the same shall be treated as a persistent contravention of the terms and conditions of the Licence and the Authority may initiate legal proceedings against the Licensee accordingly, and also issue such directions as may be deemed appropriate that may include appointment of an administrator in respect of the System Operator functions of the Licensee.

19.3 Until such time the functions of the Licensee as a National Grid Company and System Operator are not separated into two distinct legal entities, the Licensee shall ensure that its business is operated in such a manner that the management responsible and resources for operation of the Transmission System are segregated from the System Operations and Power System Planning so that both the functions are carried out independently, transparently, and impartially. This segregation of the

two functions of the Licensee shall be ensured at the earliest but in any event not later than three (03) months from the date of grant of the System Operator Licence.

19.4 The Licensee shall submit for the prior approval of the Authority, any changes to its management control, ownership, or nature of business. The Licensee shall inform the Authority, in writing, at least thirty (30) days prior to any change in its address and other contact details.

Article-20 **Effective Coordination**

20.1 The Licensee shall designate a person that will act as a primary contact with the Authority on the matters relating to this Licence. The Licensee shall inform the Authority promptly if there is any change in the primary contact.

20.2 All the communications with the Authority shall be done in writing which may include facsimile transmission or by other related electronic means of communication sources as deemed appropriate.

20.3 The Licensee 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 relevant rules, regulations and other Applicable Documents.

Article-21 **Infrastructure for Information & Operational Technology**

21.1 The Licensee shall develop automated systems and software tools relating to its various functions. All the computer programs or systems used by the Licensee shall be adequately secured as per the requirements of the Applicable Documents and relevant information technology and operational technology standards.

21.2 The Licensee shall engage in organization of a cybersecurity protection system for the energy sector with well-defined communication and reporting channels. The Licensee shall enforce security standards to measure and manage risks, as well as to define and maintain the processes. In developing an IT infrastructure, all the cybersecurity risks shall be addressed in a timely manner and managed to prevent cascading incidents.



Article-22
Preparation for Emergencies and Security Arrangements

22.1 The Licensee shall inform the relevant entities of any emergencies or security issue immediately that may arise in association with or relevant to its obligations under this Licence.

22.2 The Licensee shall take such actions as the Authority may reasonably require to plan and prepare for emergencies including taking part in necessary tests and exercises.



Article-23
Financial and Organizational Affairs

The Licensee or any of its Affiliate shall not, except to the extent specified in the terms and condition of this licence, stand surety, give guarantees, acquire or offer to acquire any interest in any entity without prior written approval of the Authority.

Article-24
Accounting Practices and Audit

24.1 Subject to and in accordance with the terms of this Transmission Licence, the Licensee shall prepare the accounts in respect of each of its separate business and other businesses, if any, in accordance with the NEPRA (Uniform System of Accounts) Regulations, 2022 as amended or replaced from time to time. Provided that the requirements with regard to maintenance of accounts specified in the said regulations shall apply in addition to any other requirements as may be applicable in any other law for the time being in force

24.2 The Licensee shall ensure that the Licensee and each of its affiliates maintain 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 were 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.

24.3 The Licensee and any of its affiliates shall:

- (a). maintain and preserve the books of accounts and accounting records in respect of each financial year for a period of five (05) 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.



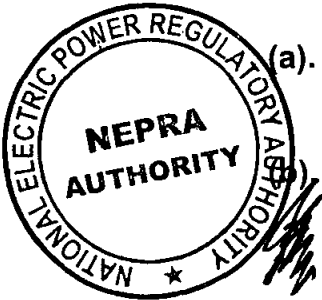
24.4 Without prejudice to the provisions of the Applicable Documents regarding the audit of the accounts of the Licensee, the Authority may, after giving the Licensee an opportunity to be heard in this regard, appoint independent auditors of national repute from amongst a panel of auditors specified 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 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.

24.5 The costs of audit as referred to in Article-24.4 shall be borne by the Licensee.

24.6 The Licensee shall ensure that the accounting statements in respect of each financial year prepared under Article-24.3(b) and the 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-25 **Open Access**

25.1 The Licensee shall offer a non-discriminatory open access transmission inter-connection service to any party or parties who are either connected to or intend to be connected to its Transmission System. The inter-connection service shall be offered in terms of non-preferential point-by-point network service on comparable terms and conditions. The following parties are qualified to obtain inter-connection service from the Licensee:



- (a). an authorised electricity operator or a person who is intending to become one; and
a person who is or intends to become a BPC taking power supply directly from the Transmission System of the Licensee.

25.2 The Licensee shall administer its transmission access (offer to connect) in a fair, transparent and open manner as stipulated in the NEPRA Open Access (Interconnection and Wheeling of Electric Power) Regulations, 2022, setting out rules, policies, procedures and charges as described in this Licence or other Applicable Documents to be developed by the Licensee and approved by the Authority.

Article-26 **Connection and Use of Transmission System - Requirement to Offer Terms**

26.1 Within sixty (60) days following the grant of this Licence the Licensee shall propose to the Authority a form to be used for the preparation of charges statements in respect of connection and use of the Transmission System of the Licensee. The Authority shall, within fifteen (15) days of submission, approve that form in consultation with the Licensee or direct such modification or revision as deemed necessary.

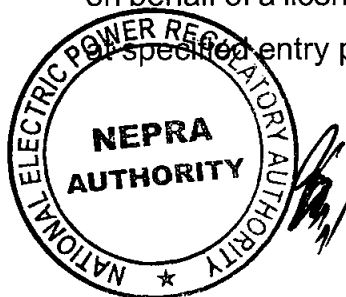
26.2 The Licensee shall within ninety (90) days following approval of the form accorded by the Authority subject to Article-26.1, submit to the Authority for approval a statement setting out the basis upon which the use of transmission system charges and charges for inter-connection services (connection charges) in each case, as part of the transmission business, shall be calculated in all cases in such manner and with such detail as shall be necessary to enable any authorised electricity operator in respect of the Service Territory to make a reasonable estimate of the charges which may be payable by such person for the use of the Transmission System of the Licensee.

26.3 The charges statement shall include such details and set out the methods by which and the principles on which the use of transmission system charges and connection charges shall be calculated.

26.4 The use of Transmission System and connection charges shall be calculated on a basis which reflects the costs prudently incurred or to be incurred, less any gains achievable through efficiencies, in the provisions, procurement, installation, operation or maintenance of the facilities for use of Transmission System or the connection including, without limitation, in respect of any work, replacement or reinforcement of the Transmission System or any part thereof, as the case may be, together with a reasonable return on the capital represented by such costs, in any event, in accordance with Article-28 of this Licence. Provided that if determined earlier by the Authority as part of Licensee tariff, the use of transmission system charges and connection charges approved through this Article shall not be in variance with the tariff so determined.

26.5 Subject to the provisions of Article-26.8 and not later than thirty (30) days following receipt of an application from a licensee for the use of the Transmission System of the Licensee, the Licensee shall offer to enter into an agreement with the applicant:

- (a). to accept specified quantities of electric power to be provided by or on behalf of a licensee into the Transmission System of the Licensee at specified entry point or points; and/or

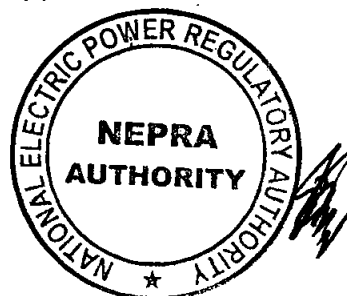


- (b). to deliver such quantities of electric power as adjusted for transmission losses to a licensee or to a BPC connected to the Transmission System of the Licensee at specified exit point or points on the Transmission System of the Licensee; and
- (c). to specify tariff and the use of transmission system charges, as approved by the Authority, which are to be paid by the applicant.

26.6 The Licensee shall prepare the relevant connection agreements to be signed with the Users, as mentioned in Article 26.5 above, and submit the same for approval of the Authority.

26.7 Subject to the provisions of Article-10.8 and not later than ninety (90) days following receipt of an application made by any person the Licensee shall offer to enter into an agreement with the applicant:

- (a). for carrying out any work necessary to connect the Transmission System of the Licensee to any other system for the transmission;
- (b). for carrying out any work required in connection with necessary extension, reinforcement or modification of the Transmission System of the Licensee for the transmission of electric power;
- (c). for obtaining any consents necessary for carrying out works;
- (d). for the installation of appropriate metering equipment at the entry point(s) and at the exit point(s);
- (e). for setting the date by which work needed to permit the applicant access to the Transmission System of the Licensee or extend or reinforce the Transmission System of the Licensee will be completed; and
- (f). to specify the Authority approved connection charge, which is to be paid by the applicant.



26.8 The principles for determining the costs directly or indirectly incurred in carrying out work under any agreement referred to in Article-10.3, shall have regard to:

- (a). any benefit or loss that may accrue to the Licensee or any other person or persons as a result of carrying out the work; and
- (b). the likelihood of the Licensee recouping a portion of the costs from other parties.

26.9 The Licensee shall not be obliged to offer terms or enter into an agreement:

- (a). in the event of any failure of the Licensee:
 - (iii). to fulfill its responsibilities under Section 18 of the Act;
 - (iv). to comply with any industry standard, as well as health, safety, environmental laws;
 - (v). to comply with the Grid Code; and
 - (vi). to comply with its responsibilities under this Licence.
- (b). the applicant ceases to be a licensee or an authorised person; or
- (c). the person making the application does not undertake to be bound insofar as it is applicable, by the terms of Grid Code.



26.10 Any dispute arising between the Licensee and an applicant shall be referred to Authority whose decision shall be final and binding on the parties.

26.11 The Licensee shall, within thirty (30) days of the receipt of a request for information from potential applicant share information in the possession of the Licensee that may be reasonably required by the applicant to make the application.

26.12 Not later than three (03) working days following the receipt of an application from a licensee or an authorised person for use of the Transmission System of the Licensee or connection to the Transmission System of the Licensee, the Licensee shall confirm the receipt of such application in writing to the applicant. The date that

the Licensee shall be deemed to have received the application shall be the date that the Licensee would have signed as received from a mail delivery/courier service.

Article-27
Non-discrimination in the Provision of Use of Transmission System and Connection to the System and Prohibition of Cross-subsidy

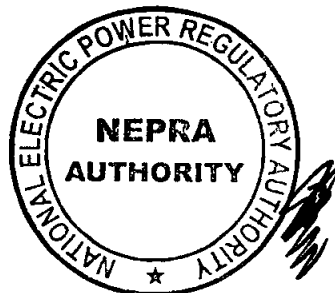
27.1 The Licensee shall not discriminate between any authorised electricity operators, BPCs, classes of BPCs, persons or classes of persons in the:

- (a). provision of open access and use of the Transmission System of the Licensee; or
- (b). carrying out of works for the purpose of connection to the Transmission System of the Licensee.

27.2 The Licensee shall charge uniformly for the provision of use of Transmission System to any authorised electricity operator or class or classes of authorised electricity operators, BPCs or persons and such charges shall not differ for the provision of similar items under use of Transmission System to any other authorised electricity operator or class or classes of authorised electricity operators, BPCs or persons except where such differences are attributable to the cost associated with the provision of such services, any dispute arising on account of the application of this sub-article shall be referred to the Authority whose decision in the matter shall be final and binding on all parties.

27.3 In setting its charges for use of Transmission System and connection, the Licensee shall not restrict, distort or prevent competition in generation, transportation or sale of electricity as allowed or established under the competitive trading arrangement.

27.4 The Licensee shall ensure that none of its separate businesses shall give or receive subsidy to or from any other business of the Licensee or of an affiliate or related undertaking of the Licensee.



Article-28

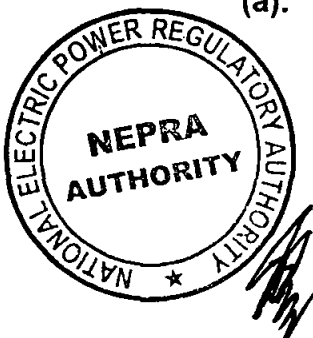
Basis of Charges for Use of Transmission System and Connection to System

28.1 The statement referred to in Article-26, in respect of use of the Transmission System of the Licensee shall include:

- (a). a schedule of charges for use of Transmission System;
- (b). the rules and methodology of calculation which will be used to quantify the use of transmission system charges to be made or levied by the Licensee in respect of the transmission of electric power;
- (c). the methods by and principles on the basis of which the charges (if any) for availability of circuit capacity on the Transmission System of the Licensee will be calculated;
- (d). a schedule of charges (if any) which may be devised for the provision and installation of metering equipment or electrical plant at entry or exit points, the provision and installation of which is ancillary to the grant of use of Transmission System, and the maintenance of meters or electrical plant; and
- (e). the methods and principles on the basis of which entry and exit charges for connection in operation will be calculated.

28.2 The statement referred to in Article-26, in respect of connection to the Transmission System of the Licensee shall include:

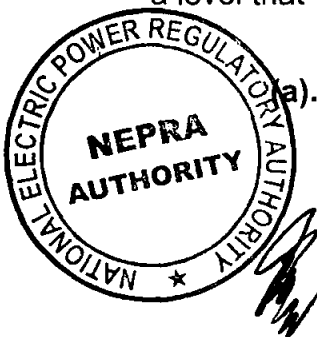
- (a). a schedule listing those items (including the carrying out of works and the provision of installation of electric lines or electrical plant or meters) of significant cost that may be required for the purpose of connection to the Transmission System of the Licensee for which connection charges may be made or levied and including (where practicable) indicative charges for each such item and an



explanation of the methodology and the principles on which such charges are calculated;

- (b). the methodology and principles upon which any charges will be made for the extension or reinforcement of the Transmission System of the Licensee rendered (in the opinion of the Authority) necessary or appropriate by virtue of providing the connection or use of Transmission System to any person seeking such connection or use of Transmission System;
- (c). the methodology and principles upon which connection charges will be made in circumstances where electric lines or electrical plant to be installed are (at the discretion of the Licensee) of greater size or capacity than that required for use of Transmission System by the person seeking connection;
- (d). the methodology and principles upon which any charges (including any capitalized charge) will be made for maintenance and repair of electric lines, electrical plant or meters provided and installed for making a connection to the Transmission System of the Licensee; and
- (e). the methodology and principles upon which charges will be made for disconnection from the Transmission System of the Licensee and the removal of electrical plant, electric lines and meters following disconnection.

28.3 Connection charges for those items referred to in Article-28.2 shall be set at a level that will enable the Licensee to recover:



- (a). the appropriate proportion of the costs directly or indirectly incurred in carrying out any works, the extension or reinforcement of the Transmission System of the Licensee or the provision and installation, maintenance and repair or removal following disconnection of any electric lines, electrical plant or meters; and

[Signature]

- (b). a reasonable return on the capital represented by such costs.

28.4 The Licensee shall not later than six (06) calendar months after the grant of this Licence prepare and submit a statement to the Authority in a form approved by the Authority in respect of each of the five (05) succeeding financial years forecast of power flows, circuit capacity, and loading on each part of the Transmission System of the Licensee and fault levels for each transmission node, together with:

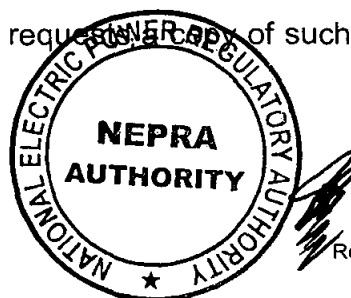
- (a). any additional information that may be necessary to enable any person seeking use of the Transmission System of the Licensee to identify and evaluate the opportunities available when connecting to and making use of Transmission System of the Licensee; and
- (b). a commentary prepared by the Licensee indicating the Licensee's views as to those parts of the Transmission System of the Licensee most suited to new connections and transport of further transfer of electricity.

28.5 The Licensee shall include in every statement given or sent under Article-28.4 the information required by therein except that the Licensee may with the prior consent of the Authority omit from such statement any details as to power flows, circuit capacity, loading or other information, disclosure of which would, in the view of the Authority, seriously and prejudicially affect the commercial interest of the Licensee or any third party.

28.6 The Licensee shall at least once every year after the grant of this Licence submit a revised statement to the Authority so that the information contained in it shall continue to be accurate in all material respects.

28.7 The Licensee shall not alter the form of the statements prepared in accordance with Articles 28.1 to 28.4 without the prior approval of the Authority.

28.8 The Licensee shall provide a copy of the statements prepared in accordance with Articles 28.1 to 28.4 to any person who requests a copy of such a statement or any modified or revised version thereof.



28.9 The Licensee may make a reasonable charge for any statement provided pursuant to Article-28.8 to any person.

Article-29
Transfer Price

29.1 The Licence, the Licensee shall specify transfer price for the users of its Transmission System or the methodology on the basis of which such price is established on a monthly, daily, part of the day, hourly or such other periods as the Authority may specify.

29.2 Prior to CMOD, the total transfer price for the authorised electricity operators receiving electric power through the Transmission System of the Licensee shall comprise:

- (a). an element of generation component worked out by the Licensee following the principles laid down in Article-20, save to the extent that Article-29.2(a) shall not be applicable to a BPC or a distribution licensee for that part of power which they are purchasing directly from generation licensee(s);
- (b). an element of transmission tariff determined by the Authority for the Licensee in respect of its transmission business pursuant to Article-28; and
- (c). an element of tariff on account of connection charges to the extent applicable.

29.3 Provided that, the Authority may in the absence of the elements stated in Article-29.2(a) & (c) above, allow the Licensee to specify its total tariff corresponding to Article-29.2(b).

29.4 Subsequent to CMOD, charges for the authorised electricity operators receiving electric power through the Transmission System of the Licensee shall be subject to the terms and conditions of CTBCM.



Article-30
Compliance with the Grid Code and Distribution Code

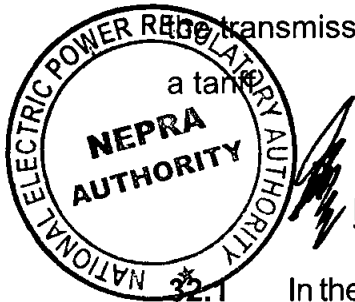
30.1 The Licensee shall comply with the relevant provisions of the Grid Code and Distribution Code of any distribution licensee to the extent applicable to the Licensee in the discharge of its obligations under this Licence.

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

Article-31
Prohibited Activities

31.1 The Licensee shall not at any time, directly or indirectly, acquire or undertake, any beneficial interest in or associate itself with, as far as the generation, distribution, marketing or trading businesses of electric power are concerned with any other licensee or persons involved in the generation and distribution businesses or intending to generate or distribute, market or trade electric power within or outside its service territory.

31.2 The Licensee shall 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.



Article-32
Non-discrimination in the Provision of Use of Tie-lines

32.1 In the provision of use of tie-lines the Licensee shall not discriminate between any authorised electricity operators, BPC, classes of BPCs, persons or classes of persons.

32.2 Without prejudice to Article-32.1, in the provision of use of tie line, due regard shall be had to the circumstances of provision, including volumes, conditions of interruption, and the date and duration of the agreement.

32.3 The Licensee shall not in setting its charges for use of tie line restrict, distort or prevent competition where applicable or intended.

32.4 The Licensee shall not be in breach of this Article where by reason of having previously granted use of tie line, there is no further available capacity in respect of which to grant use of tie line.

32.5 Notwithstanding the provisions of this Article, the Licensee shall not be liable to offer to enter into an agreement with any person or classes of persons if it is tantamount to a violation of the provisions of the Act or the Licence.

32.6 In case of dispute in respect of provision of use of tie lines, the matter shall be referred to the Authority whose decision shall be final and binding on all parties.

Article-33 **Commercial Code**

The Licensee will comply with all relevant provisions in the Market Commercial Code approved by the Authority relevant to transmission, reliable operation, metering and provision of information to CPPA-G as Market Operator or the power exchange as applicable.

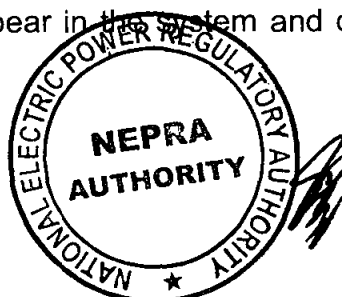
Article-34 **Transmission System Planning**

34.1 The Licensee shall coordinate with the System Operator in the development of plans for the Transmission System of the Licensee in accordance with the Grid Code and such other standards of planning as the Licensee may propose following consultation with any other licensee and authorised electricity operator and approved by the Authority.

34.2 The Licensee shall develop or modify its Transmission System according to the plans approved by the Authority.

Article-35 **Provision of Metering Services**

35.1 The Licensee shall perform role of the sole metering service provider, till the time, the market develops, more CDPs appear in the system and other companies improve



their metering infrastructure. At that time, the Authority will decide whether other companies should also be authorised as metering service providers or otherwise.

35.2 As a metering service provider, the Licensee shall strictly comply with the relevant conditions established in the Grid Code and Distribution Code. In addition to the said, the Licensee shall also be responsible:

- (a). to collect all metering information and its operational procedures, as per the Applicable Documents, for the Market Operator to perform the settlement functions;
- (b). to assess the completeness and consistency of the metering information; and
- (c). to transfer the metering information to the Market Operator through electronic means, at such intervals as stipulated in the relevant operational procedures.

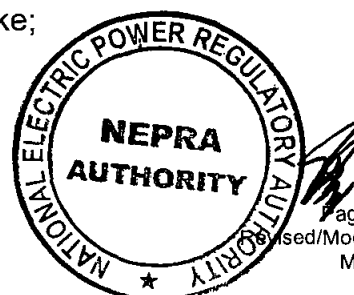
Article-36

Investment Programmes, Acquisition and Disposal of Assets

36.1 The Licensee shall pursuant to Section 32 of the Act and the Applicable Documents, submit its investment programme to the Authority for approval.

36.2 The Licensee shall not, except under prior authorisation, acquire (whether on ownership basis, lease, hire-purchase or other mode of possession or use), any tangible or intangible asset of a nature or value inconsistent with or which is not expressly or by necessary implication stated in the investment programme of the Licensee approved by the Authority provided however that, until such time the investment programme of the Licensee is approved by the Authority in terms of Article-35.1, the Authority shall grant an authorisation required under this Article when the Licensee demonstrates to satisfaction of the Authority that:

- (a). there is a need for investment in the Transmission System, which the Licensee proposes to undertake;



- (b). the Licensee has examined the economic, technical, system and environmental aspects of all available alternatives to the proposals for investing in or acquiring new transmission assets;
- (c). that the proposed investment is the least cost alternative out of the feasible alternatives subject to clause (b) above; and
- (d). the Licensee will meet its obligation to purchase economically in a manner to be proposed by the Licensee and approved by the Authority.

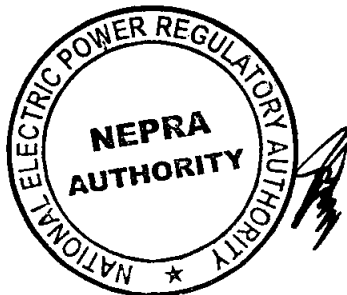
36.3 The Licensee shall not, except under prior authorisation, sell or dispose in any manner any tangible assets comprised in the Transmission System or any intangible assets accruing or likely to accrue to the Licensee from the transmission business in a manner inconsistent with or which is not expressly stated in the investment programme of the Licensee approved by the Authority, provided that until such time the investment programme of the Licensee is approved by the Authority in terms of Article-35.1, the Licensee may dispose or sell assets of a value not exceeding one hundred million rupees.

Article-37
Acquisition of Controlling Interests in the Licensee

The Licensee shall ensure that there is no controlling interest by a generation or distribution business in it. Upon acquiring information that any person intends to acquire a controlling interest in it, the Licensee shall inform Authority forthwith of the proposed acquisition and shall furnish to the Authority with all relevant details in its possession.

Article-38
Compliance with Performance Standards

The Licensee shall conform to the relevant performance standards rules of the Authority as amended or replaced from time to time.



Article-39
Transmission System Security Standard and Quality of Service

39.1 The Licensee shall plan, operate and maintain the Transmission System of the Licensee in accordance with the Grid Code and subject to the approval of the Authority, such other standards of planning and operation as the Licensee may, following consultation with any relevant authorised electricity operator liable to be materially affected, adopt from time to time.

39.2 Within three (03) months of 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 Transmission System security and availability and quality of service.

39.3 The criteria referred to in Article-39.2, against which the performance of the Licensee will be measured will be set out in a statement drawn up consistent with NEPRA Performance Standards (Transmission) Rules, 2005 (as amended or replaced from time to time) and approved by the Authority in consultation with the Licensee.

39.4 The Authority may, following consultation with the Licensee and, where appropriate with other licensees and relevant authorised electricity operator, issue directions relieving the Licensee of its obligations under Article-39.1 in respect of certain parts of the Transmission System of the Licensee.

Article-40
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-41
Industry Standards and Codes of Conduct

41.1 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.



41.2 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-42 **Insurance**

The Licensee may, pending decision of the Authority in respect of insurance to be obtained by the entire electric power industry, obtain and maintain such policies of insurance as deemed fit and appropriate in accordance with the prudent utility practices.

Article-43 **Maintenance of Records**

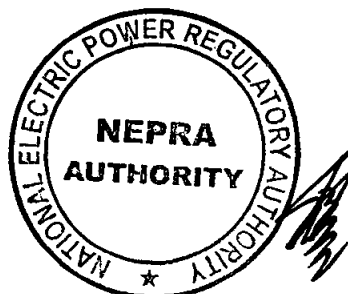
43.1 The Licensee shall keep complete and accurate records and data in respect of all aspects of each of its separate businesses.

43.2 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, provided that the Licensee shall not destroy or dispose of any such records or data after the aforesaid period without thirty (30) days prior written notice to the Authority. The Licensee shall not dispose of or destroy any records or data that the Authority directs the Licensee to preserve.

43.3 The Authority shall have the right, upon forty-eight (48) hours prior written notice to the Licensee to examine the records and data of the Licensee at any time during normal office hours.

Article-44 **Interpretation of the Provisions of the Licence**

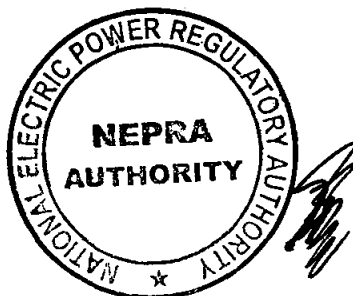
The Authority shall, in accordance with the provisions of the Act, shall make the interpretation of any or all of the provisions of this Licence. The decision of the Authority in this regard shall be final.



Article-45
Revocation, Suspension and Cancellation

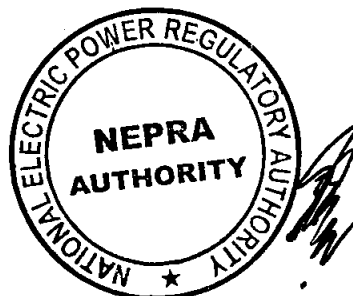
45.1 Upon being satisfied that the Licensee is not discharging its functions in accordance with the terms and conditions of this Licence and the Applicable Documents, or otherwise fails to carry on its business in the interests of the electricity market, the Authority may initiate proceedings for suspension, revocation or cancellation of the licence under the relevant regulations or the Act and take such other action as may be necessary to safeguard the interests of all stakeholders and the power industry as a whole.

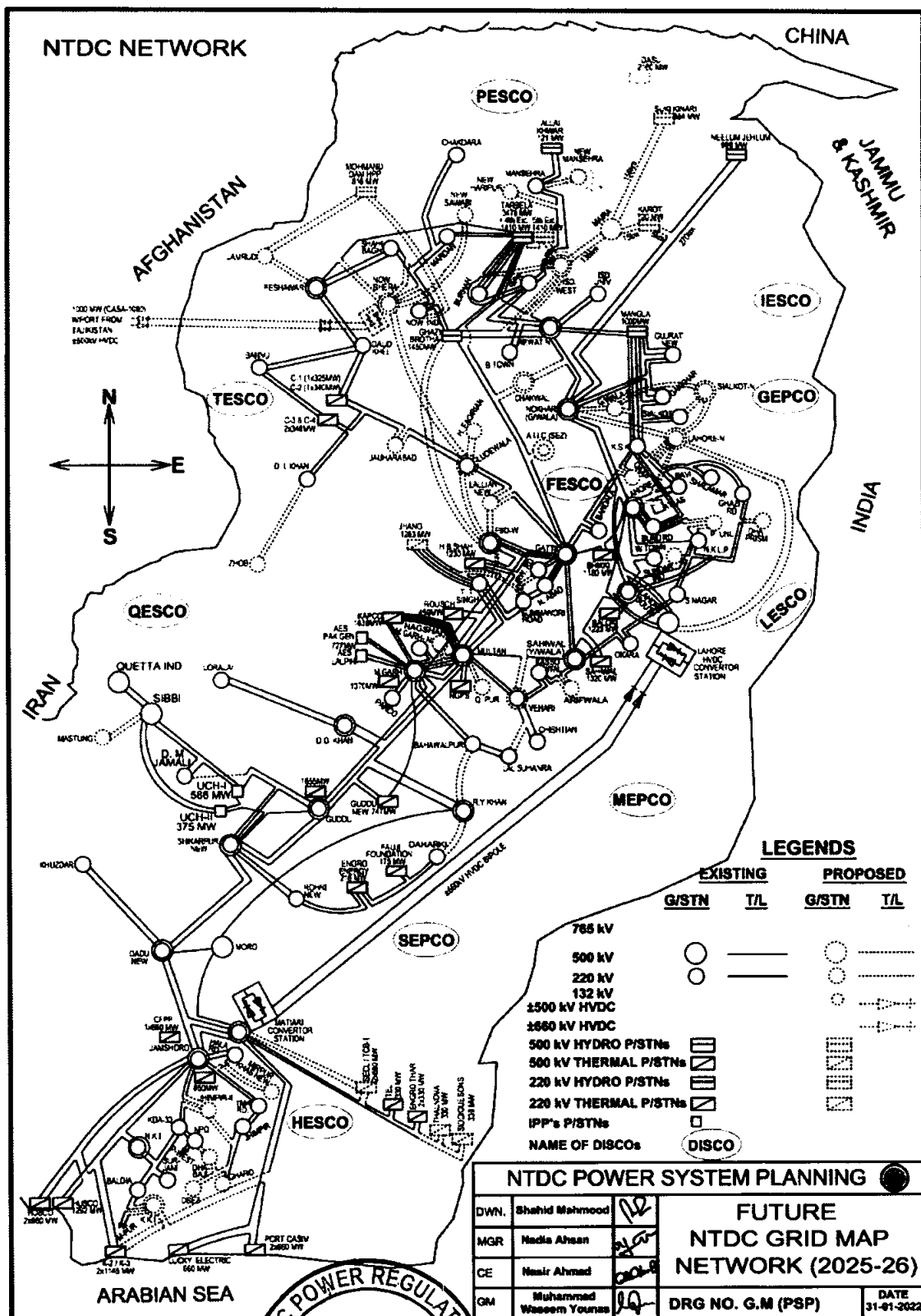
45.2 Notwithstanding the provisions of the Article-45.1 above, the Authority shall not revoke, cancel or suspend this Licence where the Licensee demonstrates to the satisfaction of the Authority that the breach of the terms of Licence is a direct result of the failure of the Licensee to obtain consent 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. Further, the Authority may appoint an administrator to take over the functions of the Licensee if the Licence is revoked or suspended.



SCHEDULE-I
(Revised/Modified)

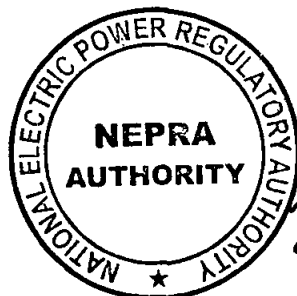
The Territory within which
the Licensee is allowed to engage in the Transmission business is
described in this Schedule.





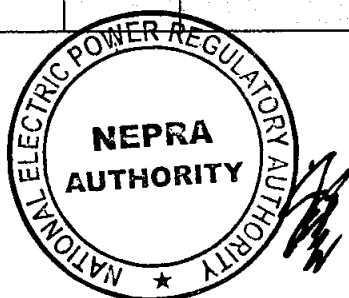
SCHEDULE-II
(Revised/Modified)

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



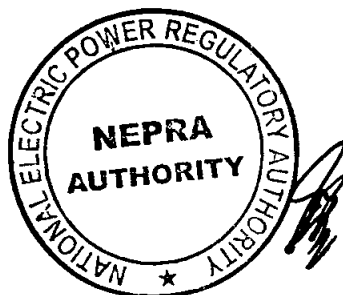
LIST OF EXISTING 500 kV SUBSTATIONS/SWITCHING STATIONS IN NTDC NETWORK

| Sr. No. | Name | DISCO | Province | T/Fs | Capacity (MVA) | T/Fs | Capacity (MVA) | Total Capacity (MVA) |
|------------------------------|--------------------------|------------|----------|------|----------------|------|----------------|----------------------|
| A. Substations | | | | | | | | |
| Lahore Region | | | | | | | | |
| 1 | Gatti | FESCO | Punjab | | | 4 | 450 | 1,800 |
| 2 | Sheikhupura | LESCO | Punjab | 4 | 600 | | | 2,400 |
| 3 | Yousafwala | MEPCO | Punjab | 3 | 600 | | | 1,800 |
| 4 | Lahore South | LESCO | Punjab | 3 | 750 | | | 2,250 |
| 5 | Nokhar | GEPCO | Punjab | 3 | 600 | | | 1,800 |
| 6 | Faisalabad West | FESCO | Punjab | 2 | 750 | | | 1,500 |
| Islamabad Region | | | | | | | | |
| 7 | Rawat | IESCO | Punjab | 1 | 750 | 3 | 450 | 2,100 |
| 8 | Sheikh Muhammadi | PESCO | KPK | | | 3 | 450 | 1,350 |
| Multan Region | | | | | | | | |
| 9 | Multan | MEPCO | Punjab | | | 2 | 450 | 900 |
| 10 | TPS Muzaffargarh | MEPCO | Punjab | 2 | 600 | | | 1,200 |
| 11 | D.G. Khan | MEPCO | Punjab | 2 | 600 | | | 1,200 |
| 12 | R.Y. Khan | MEPCO | Punjab | 2 | 600 | | | 1,200 |
| Hyderabad Region | | | | | | | | |
| 13 | Jamshoro | HESCO | Sindh | | | 3 | 450 | 1,350 |
| 14 | Dadu | HESCO | Sindh | | | 2 | 450 | 900 |
| 15 | Guddu | SEPCO | Sindh | | | 3 | 450 | 1,350 |
| 16 | Shikarpur | SEPCO | Sindh | 2 | 600 | | | 1,200 |
| 17 | NKI | K-Electric | Sindh | 2 | 600 | | | 1,200 |
| NTDC Total | | | | | | | | 25,500 |
| Other Power Stations | | | | | | | | |
| 18 | Ghazi Brotha HPP | PESCO | K.P. K | 2 | 600 | | | 1,200 |
| 19 | Tarbela HPP | PESCO | K.P. K | 3 | 450 | | | 1,350 |
| Total | | | | | | | | 2,550 |
| Grand Total | | | | | | | | 28,050 |
| B. Switching Stations | | | | | | | | |
| Hyderabad region | | | | | | | | |
| 1 | Moro (Switching Station) | SEPCO | Sindh | | | | | |

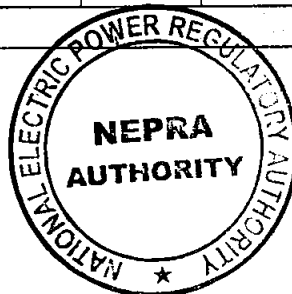


LIST OF EXISTING 220 kV GRID STATIONS **IN NTDC NETWORK**

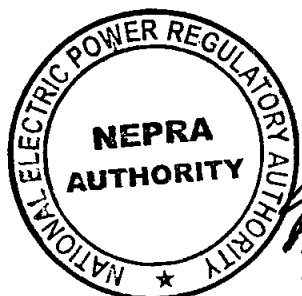
| Sr. No. | Name | DISCO | T/Fs | Capacity (MVA) | T/Fs | Capacity (MVA) | Total T/Fs | Total Capacity (MVA) |
|-------------------------|-----------------|-------|------|----------------|------|----------------|------------|----------------------|
| Lahore Region | | | | | | | | |
| 1 | Bund Road | LESCO | 4 | 250 | | | 4 | 1,000 |
| 2 | Bandala | FESCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 3 | Ghakkar | GEPCO | | | 4 | 160 | 4 | 640 |
| 4 | Ghazi Road | LESCO | 3 | 250 | | | 3 | 750 |
| 5 | Gujrat | GEPCO | 3 | 250 | | | 3 | 750 |
| 6 | Jaranwala Road | FESCO | | | 4 | 160 | 4 | 640 |
| 7 | Kala Shah Kaku | LESCO | | | 4 | 160 | 4 | 640 |
| 8 | Kassowal | MEPCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 9 | Lalian | FESCO | 1 | 250 | | | 1 | 250 |
| 10 | Ludewala | FESCO | 2 | 250 | 1 | 160 | 3 | 660 |
| 11 | New Kot Lakhpat | LESCO | 3 | 250 | | | 3 | 750 |
| 12 | Nishatabad | FESCO | | | 5 | 160 | 5 | 800 |
| 13 | Okara | LESCO | 2 | 250 | | | 2 | 500 |
| 14 | Ravi | LESCO | 3 | 250 | | | 3 | 750 |
| 15 | Samundari Road | FESCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 16 | Sarfaraz Nagar | LESCO | | | 4 | 160 | 4 | 640 |
| 17 | Sialkot | GEPCO | | | 3 | 160 | 3 | 480 |
| 18 | Shalamar | LESCO | | | 3 | 160 | 3 | 480 |
| 19 | T.T Singh | FESCO | 3 | 250 | 1 | 160 | 4 | 910 |
| 20 | WAPDA Town | LESCO | 1 | 250 | 2 | 160 | 3 | 570 |
| Total Lahore | | | | | | | 62 | 12,920 |
| Islamabad Region | | | | | | | | |
| 1 | Bannu | PESCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 2 | Burhan | IESCO | 4 | 250 | | | 4 | 1,000 |
| 3 | Daudkhel | FESCO | | | 2 | 160 | 2 | 320 |
| 4 | Islamabad Univ | IESCO | 2 | 250 | | | 2 | 500 |
| 5 | Mardan | PESCO | 3 | 250 | | | 3 | 750 |
| 6 | Sangjani (ISPR) | IESCO | | | 5 | 160 | 5 | 800 |
| 7 | Shahi Bagh | PESCO | | | 4 | 160 | 4 | 640 |
| 8 | New Mansehra | PESCO | 2 | 250 | | | 2 | 500 |
| 9 | Chakdara | PESCO | 2 | 250 | | | 2 | 500 |
| 10 | D.I. Khan | PESCO | 2 | 250 | | | 2 | 500 |
| 11 | Nowshera | PESCO | 2 | 250 | | | 2 | 500 |
| Total Islamabad | | | | | | | 31 | 6,580 |



| | | | | | | | | |
|--|--------------------|-------|---|-----|---|-----|-----------|--------------|
| Hyderabad Region | | | | | | | | |
| 1 | Daharki | SEPCO | 1 | 250 | 1 | 160 | 2 | 410 |
| 2 | Guddu (Switchyard) | SEPCO | | | 1 | 160 | 1 | 160 |
| 3 | Hala Road | HESCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 4 | Jhampir-I | HESCO | 3 | 250 | | | 3 | 750 |
| 5 | Jhampir-II | HESCO | 3 | 250 | | | 3 | 750 |
| 6 | Rohri | SEPCO | 2 | 250 | | | 2 | 500 |
| 7 | T.M. Khan | HESCO | | | 2 | 160 | 2 | 320 |
| Total Hyderabad | | | | | | | 17 | 3,710 |
| Quetta Region | | | | | | | | |
| 1 | D.M. Jamali | QESCO | | | 2 | 160 | 2 | 320 |
| 2 | Khuzdar | QESCO | | | 2 | 160 | 2 | 320 |
| 3 | Loralai | QESCO | 2 | 250 | | | 2 | 500 |
| 4 | Quetta | QESCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 5 | Sibbi | QESCO | | | 2 | 160 | 2 | 320 |
| Total Quetta | | | | | | | 11 | 2,030 |
| Multan Region | | | | | | | | |
| 1 | Muzaffargarh | MEPCO | | | 3 | 160 | 3 | 480 |
| 2 | Bahawalpur | MEPCO | 2 | 250 | 1 | 160 | 3 | 660 |
| 3 | Vehari | MEPCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 4 | Chishtian | MEPCO | | | 3 | 160 | 3 | 480 |
| 5 | Lal Sohanra | MEPCO | 1 | 250 | | | 1 | 250 |
| 6 | NGPS Multan | MEPCO | | | 3 | 160 | 3 | 480 |
| Total Multan | | | | | | | 16 | 2,920 |
| In Service Substations (500 kV) | | | | | | | | |
| Islamabad | | | | | | | | |
| 1 | Rawat | IESCO | 4 | 250 | | | 4 | 1,000 |
| 2 | Sheikh Muhammadi | PESCO | 4 | 250 | | | 4 | 1,000 |
| Total Islamabad | | | | | | | 8 | 2,000 |
| Lahore Region | | | | | | | | |
| 1 | Faisalabad West | FESCO | 2 | 250 | | | 2 | 500 |
| 2 | Sheikhupura | LESCO | | | 4 | 160 | 4 | 640 |
| 3 | Yousafwala | MEPCO | | | 4 | 160 | 4 | 640 |
| 4 | Nokhar | GEPCO | | | 3 | 160 | 3 | 480 |
| Total Lahore | | | | | | | 13 | 2,260 |
| Multan Region | | | | | | | | |
| 1 | Multan | MEPCO | | | 3 | 160 | 3 | 480 |
| 2 | D.G. Khan | MEPCO | 2 | 250 | | | 2 | 500 |
| 3 | R.Y. Khan | MEPCO | 2 | 250 | | | 2 | 500 |
| Total Multan | | | | | | | 7 | 1,480 |



| | | | | | | | | |
|------------------------------------|---------------------------|-------|---|-----|---|-----|---|---------------|
| | Hyderabad Region | | | | | | | |
| 1 | Shikarpur | SEPCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 2 | Dadu | HESCO | 1 | 250 | 2 | 160 | 3 | 570 |
| 3 | Jamshoro | SEPCO | | | 2 | 160 | 2 | 320 |
| Total Hyderabad | | | | | | | | 8 |
| NTDC Total | | | | | | | | 176 |
| | Other Power Plants | | | | | | | |
| 1 | KAPCO PP | MEPCO | 3 | 100 | 1 | 200 | 4 | 500 |
| 2 | Mangla HPP | IESCO | 3 | 138 | | | 3 | 414 |
| 3 | Bahria Town | IESCO | 1 | 63 | | | 1 | 63 |
| Total Power Plants | | | | | | | | 977 |
| Grand Total (NTDC + Others) | | | | | | | | 36,377 |



National Electric Power Regulatory Authority
(NEPRA)

Determination of the Authority
in the Matter of the Licensee Proposed Modification in the
Transmission Licence of National Transmission & Despatch
Company Limited

March 21, 2023
Case No. LAT-01

(A). Background

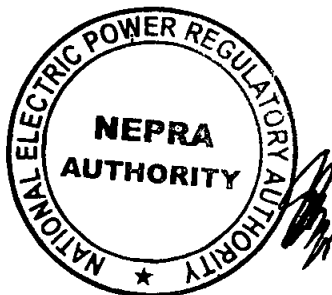
(i). In terms of Section-17 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act"), the Authority granted a Transmission Licence (No. TL/01/2002, dated December 31, 2002) to National Transmission & Despatch Company Limited (NTDC).

(ii). The above licence provides NTDC an exclusivity as National Grid Company (NGC) for performing functions as Transmission Network Operator (TNO) and System Operator (SO) in the whole country except for the service area of K-Electric Limited (KEL).

(iii). The NEPRA Act has been amended in 2018 whereby various new provisions have been introduced to provide a framework for the development of a competitive electric power market including, *inter alia*, segregation of transmission and system operation services to be performed under different licences. In this regard, Sections 23G and 23H *inter alia*, have been introduced, envisaging a separate licence for SO.

(B). Communication of Modification

(i). In accordance with Regulation-10 of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 (the "Licensing Regulations"), NTDC communicated a Licensee Proposed Modification (LPM) in its existing Transmission Licence on November 22, 2022. In the "text of the proposed modification", NTDC proposed to exclude the functions of SO from its



Transmission Licence and accordingly suggested amendments in various Articles of its Transmission Licence.

(ii). Regarding the "statement of the reasons in support of the modification", NTDC, *inter alia*, submitted that it has filed an application before the Authority for grant of licence for System Operator as a separate functional activity within NTDC along with a revised draft Grid Code for its approval. In order to avoid duplication of activities between the existing licence and the proposed licence for SO, the amendments are essential.

(iii). About the "statement of the impact on the tariff, quality of service and the performance by the Licensee of its obligations under the licence", NTDC *inter alia*, stated that it will file a Tariff Petition in due course. Further, NTDC submitted that the proposed modification will help in enhancing its performance and operational capabilities.

(C). Processing of LPM

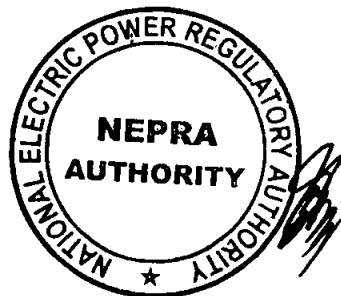
(i). After completion of all the required information, as stipulated under Regulations 10(1) and 10(2) of the Licensing Regulations, by NTDC, the Registrar under Regulation-10(3) of the Licensing Regulations published the communicated LPM on January 04, 2023 in one (01) English and one (01) Urdu newspaper, informing the general public about the communicated LPM and inviting their comments within a period of fourteen (14) days from the date of the said publication.

(ii). Apart from the above, separate letters were also sent to various other stakeholders, including Government Ministries and their attached departments, various representative organization and individual experts on January 04, 2023. In this regard, the stakeholders were informed about the communicated LPM and publication of the notice in the press. Further, the said entities were invited to submit their views and comments in the matter, for assistance of the Authority.

(D). Comments of Stakeholders

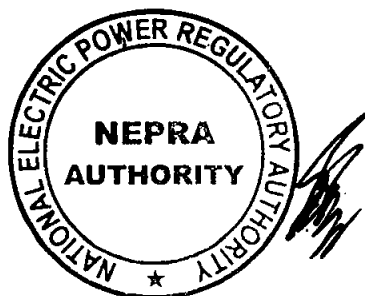
(i). In reply to the above, the Authority received comments from three (03) stakeholders, including Faisalabad Electric Supply Company Limited (FESCO), KEL

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and Board of Investment (BoI). The salient points of comments offered by the said stakeholders are summarized in the following paragraphs.

- (a). FESCO, in its comments, submitted that it has no reservations for the modification in the Transmission Licence of NTDC;
- (b). KEL expressed that it has submitted its comments earlier vide communication dated November 14, 2022 and gave feedback in the consultative sessions held with NTDC with regard to the revised Grid Code and raised certain observations and also requested for a consultative session of all stakeholders prior to the finalization of the Grid Code. Accordingly, KEL reiterates its request that the revised Grid Code be finalized after thorough consultation with all stakeholders. According to Section-2 of its Transmission Licence, KEL is the planner and SO for the area of its service. Accordingly, KEL owns and manages its own transmission network and also performs the functions of SO for its service area through its Load Despatch Centre (LDC). Further, with respect to the integration of KEL into CTBCM, considering its unique status as a VIU having ownership and managing its own Transmission Network as well as rights and obligations under its licence, various discussions with CPPA and NTDC/NPCC were held wherein it was discussed that to ensure implementation of central economic dispatch, the parties agreed that the same can be done through an agreed upon SOP with NPCC which will, among other modalities, also include mechanism for exchange of information/data between KE and NTDC/NPCC to enable both entities to plan for future generation additions in an integrated manner, as well as make fuel commitments, maintenance plan, etc. and the same has also been proposed as part of the Integration Plan of KEL for CTBCM. Accordingly, in line with its licensed obligation, KEL will continue to perform the functions of SO wherein central dispatch will be executed based on a mutually agreed SOP with NPCC. In this regard, KE through its letter dated November 14, 2022, had

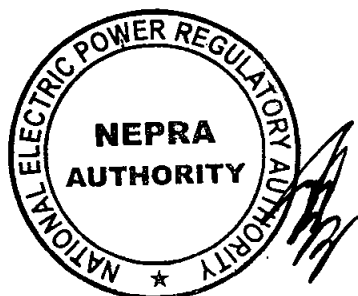


proposed inclusion of the concept of Regional Grid Company (RGC) or Regional System Operator (RSO) in the Grid Code. The same was also extensively discussed and agreed between KEL and NTDC teams during consultative sessions held on the revision of Grid Code as submitted in detail through above letter. Regarding Open Access (i.e. Article-9 of the licence of NTDC), it was submitted that KEL understands that transmission congestion should also be governed by the provisions of the respective Connection Agreements executed with relevant DISCO(s). Accordingly, it is submitted that this consideration should also be incorporated in above mentioned article of the licence of NTDC. About the Transmission System Development Planning (i.e. Article-23 of the licence of NTDC), it was submitted that under its Transmission Licence, KEL, in addition to being the Transmission Network Operator and System Operator for its Service Territory, is also obligated to prepare short-term and long-term plans, which is also supplemented by integrated structure of KEL. Accordingly, KEL requested that it may be allowed to prepare its own Transmission System Expansion Plan (TSEP). In order to facilitate integrated planning objective, KEL will collaborate with NTDC for provision of required information for the purpose of preparation/consolidation of NTDC's TSEP; and

- (c). Bol has submitted that being a technical matter, it is not in a position to comment however, BOI is of the view that the matter may be considered keeping in view the public interest and relevant laws/rules in vogue.

(ii). The Authority examined the above comments of stakeholders and considered it appropriate to seek the perspective of NTDC on the comments/observations of KEL. In this regard NTDC submitted that:

- (a). The observations/comments of KEEL on Grid Code and SO license application have already been addressed/responded by NTDC in



detail in the proceedings of SO licence application. In this regard, consultative sessions regarding KEL comments on Grid Code were held with the KEL team during their visit to NTDC office. After thorough review and consideration, the comments were addressed by either incorporating them in the Grid Code or detailed replies were provided to the respective queries. After the consultative process with KEL and other stakeholders, the revised version of Grid Code was submitted to the Authority for review/approval;

- (b). It has already been explained by KEL that there shall be central dispatch of all generation resources by the SO whereas operational details such as procedure of conveying of the SO instructions to KEL generators, preparation of maintenance plans etc. shall be as per mutually agreed SOP between KEL and NPCC. In this regard, KEL control centre shall act as an intermediary liaison office for generation and transmission control, as per the SOP. Moreover, according to the revised Grid Code submitted by NTDC to the Authority, the generation planning of the country shall be carried out by the SO. IGCEP is developed on the basis of inputs of all stakeholders including KEL. However, the procurement and implementation of generation projects can be done by KEL in its service area. The comment is already addressed by the NTDC team working on the Grid Code. According to the Revised Grid Code submitted by NTDC to NEPRA, every TNO (including KEL) shall prepare transmission expansion plans for their respective territories and assist NGC in the preparation of 10-year centralized TSEP. The procurement and implementation of transmission projects can be done by KEL in its service area; and
- (c). The comments of KEL about its obligations under its transmission licence for regarding provision of open access are irreverent to the instant case of LPM in transmission licence of NTDC. Further, congestion issue will be governed by the Grid Code. According to the revised Grid Code submitted by NTDC to NEPRA, each TNO

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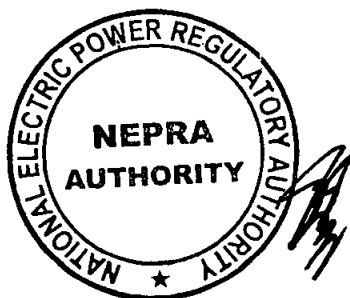
(including KEL) shall perform transmission planning of its defined territory and assist the NGC (and SO) along with other TNOs in the preparation of centralized TSEP. The procurement and implementation of transmission projects can be done by KEL in its service area.

(E). Evaluation/Findings of the Authority

(i). The Authority has examined the entire case in detail, including the already granted transmission licence and information submitted along with the application of LPM, comments of stakeholders, relevant provisions of the NEPRA Act, relevant rules & regulations framed thereunder.

(ii). In consideration of the above, it is observed that in terms of Section-26 of the NEPRA Act read with Regulation-9(2) of the Licensing Regulations, the Authority can modify a licence either at its own or on the request of a Licensee subject to and in accordance with such further changes as deemed fit, if such modification (a). does not adversely affect the performance of the licensee of its obligations; (b). the modification is reasonably necessary for the licensee to effectively and efficiently perform its obligations under the licence; (c). is likely to be beneficial to the consumers; or (d). is reasonably necessary to ensure the continuous, safe and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the licensee.

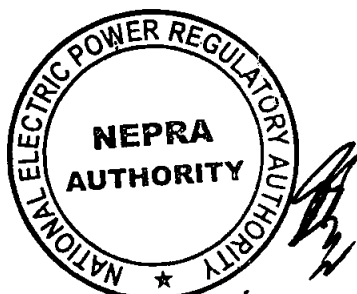
(iii). In consideration of the above, the Authority considers that (a). the proposed LPM for exclusion of various functions of SO from the existing Transmission Licence of NTDC will not adversely affect its performance of its obligations considering the fact that a separate application for the grant of licence for SO has already been submitted; (b). in view of the fact that NTDC has submitted a separate application for grant of licence for SO, the modification is necessary to avoid any duplication of functions; (c). the LPM is likely to be beneficial to the consumers as this will lead to separate licence for SO resulting in more transparency in the functions of NTDC especially with regard to system operations; and (d). the LPM is reasonably necessary to ensure the continuous, safe and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the licensee.



(iv). Regarding comments of stakeholders, the Authority has observed that FESCO and Bol did not object to the request of NTDC for the exclusion of the provisions relating to SO from its Licence, whereas KEL raised certain observations. In this regard, the queries which had been raised mainly include (a). various observations on Grid Code; (b). status of KEL to work as SO and Planner of its area of service; (c). making Open Access/Transmission Congestion to be governed by the connection agreement with relevant DISCOs and (d). allowing KEL to prepare its own TSEP.

(v). Regarding the comments of KEL, the Authority has observed that the same pertain to various provisions of the revised/amended draft Grid Code which NTDC has submitted along with its application for licence for SO. The same is being processed in parallel to this LPM and the observations will be addressed therein. Regarding the observations of the KEL pertaining to System Planning (including TSEP) and SO the same are already under consideration of the Authority as part of the integration plan of KEL for the CTBCM. However, it is pertinent to mention that the processing of LPM of NTDC and grant of a separate SO Licence to it, are being processed under the relevant provisions of the NEPRA Act and framed regulations which is independent of the integration plan of KEL. Therefore, it is considered appropriate that the said plan be approved expeditiously to avoid such observations which KEL is raising time and again.

(vi). The Authority has observed that the amended NEPRA Act envisages a single SO in the country for which NTDC is being considered. NTDC in its capacity as SO as per Section-23G of the NEPRA Act will be responsible for dispatch and long-term system planning in the country, including the service area of KEL. Therefore, the contention of the KEL that it may be allowed to act as SO and planner for its area and preparation of the TSEP for the said, may not be appropriate. In view of the said, the Authority considers that NTDC should act as single planner and SO for the country and make suitable SOPs to run the system in reliable and sustainable manner in coordination with KEL.



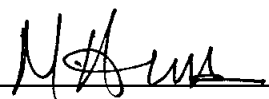
(F). Decision of the Authority

(i). In view of the above, the Authority in terms of Section-26 of the NEPRA Act, read with Regulation-10(11) of the Licensing Regulations, approves the communicated LPM in the Transmission Licence (No. TL/01/2002) of NTDC, to the extent of exclusion of functions of System Operator and revision of terms and conditions of the Transmission Licence, accordingly. In view of the said, the Transmission Licence (No. TL/01/2002) of NTDC is hereby modified. This modification in the Transmission Licence of NTDC shall come into force from the effective date of the System Operator Licence (No. SOL/01/2023).

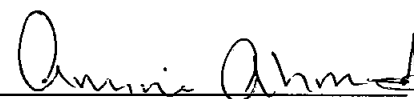
(ii). The modification in the Transmission Licence is attached as annexure to this determination. The modification in the Transmission Licence is subject to the provisions contained in the NEPRA Act, relevant rules framed thereunder, terms & conditions of the Transmission Licence and other Applicable Documents.

Authority

Maqsood Anwar Khan
(Member)



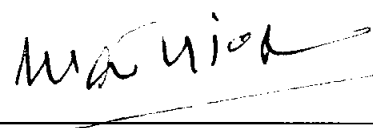
Amina Ahmad
(Member)



Rafique Ahmed Shaikh
(Member)



Mathar Niaz Rana (nsc)
(Member)



Tauseef H. Farooqi
(Chairman)

