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LOAN NUMBER 3419-PAK

LOAN AGREEMENT  
(Ordinary Operations)

(Second Power Transmission Enhancement Investment Program - Project 1)

between

ISLAMIC REPUBLIC OF PAKISTAN

and

ASIAN DEVELOPMENT BANK

DATED 29 Nov 2016

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PAK 48078

**LOAN AGREEMENT  
(Ordinary Operations)**

LOAN AGREEMENT dated 29 Nov 2016 between ISLAMIC REPUBLIC OF PAKISTAN ("Borrower") and ASIAN DEVELOPMENT BANK ("ADB").

WHEREAS

(A) by a framework financing agreement dated 15 July 2016 between the Borrower and ADB, ADB has agreed to provide a multitranches financing facility to the Borrower for purposes of financing projects under the Second Power Transmission Enhancement Investment Program;

(B) by a periodic financing request dated 15 July 2016, the Borrower has applied to ADB for (i) a loan from ADB's ordinary capital resources for the purposes of financing the investment component of the Project as described in Schedule 1 to this Loan Agreement, and (ii) a loan from ADB's Special Funds resources for the purposes of financing the support component of the Project as described in Schedule 1 to this Loan Agreement;

(C) by a loan agreement of even date herewith between the Borrower and ADB, ADB has agreed to lend to the Borrower from ADB's Special Funds resources an amount in various currencies equivalent to seven million one hundred ninety six thousand Special Drawing Rights (SDR 7,196,000) for the purposes of financing the support component of the Project as described in Schedule 1 to this Loan Agreement;

(D) the Project will be carried out by NTDC and, for this purpose, the Borrower will make available to NTDC the proceeds of the Special Operations Loan and the loan provided for herein upon terms and conditions satisfactory to ADB; and

(E) ADB has agreed to make a loan to the Borrower from ADB's ordinary capital resources upon the terms and conditions set forth herein and in the Project Agreement of even date herewith between ADB and NTDC;

NOW THEREFORE the parties hereto agree as follows:

**ARTICLE I**

**Loan Regulations; Definitions**

Section 1.01. All the provisions of the Ordinary Operations Loan Regulations Applicable to LIBOR-Based Loans Made from ADB's Ordinary Capital Resources, dated 1 July 2001 ("Loan Regulations"), are hereby made applicable to this Loan Agreement with the same force and effect as if they were fully set forth herein, subject, however, to the following modifications:

- (a) Section 3.03 is deleted and the following is substituted therefor:

**Commitment Charge; Credit; Maturity Premium.** (a)

The Borrower shall pay a commitment charge on the unwithdrawn amount of the Loan at the rate and on the terms specified in the Loan Agreement.

(b) ADB shall provide to the Borrower a credit at the rate specified in the Loan Agreement, which credit shall remain fixed for the term of the Loan. ADB shall apply the credit against the interest payable by the Borrower.

(c) The Borrower shall pay a maturity premium at the rate specified in the Loan Agreement, which maturity premium shall remain fixed for the term of the Loan. ADB shall add the maturity premium to the interest payable by the Borrower.

- (b) Section 3.06 is deleted and the following is substituted therefor:

**Rebate.** (a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be reduced, ADB shall provide a Rebate to any Borrower with an outstanding Loan on which a higher Fixed Spread is applicable. The amount of the Rebate shall be determined by multiplying (i) the difference between the Fixed Spread applicable to the outstanding Loan and the Fixed Spread that will be applied to new Loans (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the lower Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in ADB achieving savings, ADB shall provide a Rebate to the Borrower. The amount of the Rebate shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated. ADB shall apply the amount of the Rebate against the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

- (c) Section 3.07 is deleted and the following is substituted therefor:

**Surcharge.** (a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be increased, any Borrower with an outstanding Loan on which a lower Fixed Spread is applicable shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the difference between the Fixed Spread that will be applied to new Loans and the Fixed Spread applicable to the outstanding Loan (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the higher Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in ADB incurring additional costs, the Borrower shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated. ADB shall add the amount of the Surcharge to the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

Section 1.02. Wherever used in this Loan Agreement, the several terms defined in the Loan Regulations have the respective meanings therein set forth unless modified herein or the context otherwise requires. Additional terms used in this Loan Agreement have the following meanings:

(a) "Consulting Guidelines" means the Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers (2013, as amended from time to time);

(b) "Consulting Services" means the services to be financed out of the proceeds of the Special Operations Loan as described in paragraphs 3(g) to 3(j) of Schedule 1 to this Loan Agreement;

(c) "EARF" or "Environmental Assessment and Review Framework" means the environmental assessment and review framework for the Investment Program, including any update thereto, agreed between the Borrower and ADB and incorporated by reference in the FFA;

(d) "EMP" or "Environmental Management Plan" means the environmental management plan for a Subproject, including any update thereto, incorporated in the IEE for such Subproject;

(e) "Environmental Safeguards" means the principles and requirements set forth in Chapter V, Appendix 1, and Appendix 4 (as applicable) of the SPS;

(f) "Facility" means the multitranche financing facility provided by ADB to the Borrower for purposes of financing projects under the Investment Program;

(g) "FAM" means the Facility administration manual dated 15 July 2016 and agreed between the Borrower and ADB, as updated from time to time in accordance with the respective administrative procedures of the Borrower and ADB;

(h) "FFA" means the framework financing agreement dated 15 July 2016 between ADB and the Borrower with respect to the Facility;

(i) "Goods" means equipment and materials to be financed out of the proceeds of the Loan, including related services such as transportation, insurance, installation, commissioning, training, and initial maintenance, but excluding Consulting Services;

(j) "IEE" or "Initial Environmental Examination" means the initial environmental examination for a Subproject, including any update thereto, prepared and submitted by the Borrower pursuant to the requirements set forth in the EARF and cleared by ADB;

(k) "Investment Program" means the Second Power Transmission Enhancement Investment Program;

(l) "Involuntary Resettlement Safeguards" means the principles and requirements set forth in Chapter V, Appendix 2, and Appendix 4 (as applicable) of the SPS;

(m) "kV" means kilovolt;

(n) "Loan Agreements" means, collectively, this Loan Agreement and the Special Operations Loan Agreement;

(o) "Loan Disbursement Handbook" means ADB's Loan Disbursement Handbook (2015, as amended from time to time);

(p) "Loans" means, collectively, the Loan provided under this Loan Agreement and the Special Operations Loan;

(q) "MVA" means Mega-volt ampere;

(r) "NEPRA" means the National Electric Power Regulatory Authority of the Borrower, or any successor thereto;

(s) "NTDC" means the National Transmission and Despatch Company Limited, or any successor thereto acceptable to ADB;

(t) "PMU" means the Project management unit established by NTDC and designated by it to manage the implementation of the Project;

(u) "PFR" means the periodic financing request submitted or to be submitted by the Borrower for the purposes of each loan under the Facility and, for the purpose of this Loan Agreement, means the periodic financing request dated 15 July 2016;

(v) "Procurement Guidelines" means ADB's Procurement Guidelines (2015, as amended from time to time);

(w) "Procurement Plan" means the procurement plan for the Project dated 15 July 2016 and agreed between the Borrower and ADB, as updated from time to time in accordance with the Procurement Guidelines, the Consulting Guidelines, and other arrangements agreed with ADB;

(x) "Project Executing Agency" for the purposes of, and within the meaning of, the Loan Regulations means NTDC, or any successor thereto acceptable to ADB, which is responsible for the carrying out of the Project;

(y) "Project facilities" means the facilities to be extended, augmented, rehabilitated, constructed, installed or otherwise provided under the Project;

(z) "Relending Policy" means the memorandum dated 23 January 2010 entitled "Re-Lending of Foreign Loans/Credits" issued by the Economic Affairs Division of the Ministry of Finance, Revenue, Economic Affairs, Statistics and Privatization of the Borrower;

(aa) "RF" or "Resettlement Framework" means the resettlement framework for the Investment Program, including any update thereto, agreed between the Borrower and ADB and incorporated by reference in the FFA;

(bb) "RP" or "Resettlement Plan" means the resettlement plan for a Subproject, including any update thereto, prepared and submitted by the Borrower pursuant to the requirements set forth in the RF and cleared by ADB;

(cc) "Safeguards Monitoring Report" means each report prepared and submitted by the Borrower to ADB that describes progress with the implementation of, and compliance with, the EMPs and the RPs (as applicable), including any corrective and preventative actions;

(dd) "Special Operations Loan" means the loan referred to in recital (C) of this Loan Agreement;

(ee) "Special Operations Loan Agreement" means the agreement referred to in recital (C) of this Loan Agreement;

(ff) "SPS" or "Safeguard Policy Statement" means ADB's Safeguard Policy Statement (2009);

(gg) "Subproject" means each of the subprojects, under the Project, which are listed and described in paragraphs 3(a) to 3(f) of Schedule 1 to this Loan Agreement;

(hh) "Subsidiary Loan Agreement" means the agreement between the Borrower and NTDC, satisfactory to ADB, referred to in Section 3.01(a) of this Loan Agreement; and

(ii) "Works" means construction or civil works to be financed out of the proceeds of the Loan, including services such as drilling or mapping, and project related services that are provided as part of a single responsibility or turnkey contract, but excluding Consulting Services.

## ARTICLE II

### The Loan

Section 2.01. (a) ADB agrees to lend to the Borrower from ADB's ordinary capital resources an amount of one hundred fifteen million Dollars (\$115,000,000), as such amount may be converted from time to time through a Currency Conversion in accordance with the provisions of Section 2.06 of this Loan Agreement.

(b) The Loan has a principal repayment period of 21 years, and a grace period as defined in subsection (c) hereinafter.

(c) The term "grace period" as used in subsection (b) hereinabove means the period prior to the first Principal Payment Date in accordance with the amortization schedule set forth in Schedule 2 to this Loan Agreement.

Section 2.02. The Borrower shall pay to ADB interest on the principal amount of the Loan withdrawn and outstanding from time to time at a rate for each Interest Period equal to the sum of:

- (a) LIBOR;
- (b) 0.60% as provided by Section 3.02 of the Loan Regulations less a credit of 0.10% as provided by Section 3.03 of the Loan Regulations; and
- (c) a maturity premium of 0.10% as provided by Section 3.03 of the Loan Regulations.

Section 2.03. The Borrower shall pay a commitment charge of 0.15% per annum. Such charge shall accrue on the full amount of the Loan (less amounts withdrawn from time to time), commencing 60 days after the date of this Loan Agreement.

Section 2.04. Interest and other charges on the Loan shall be payable semiannually on 1 June and 1 December in each year.

Section 2.05. The Borrower shall repay the principal amount of the Loan withdrawn from the Loan Account in accordance with the provisions of Schedule 2 to this Loan Agreement.

Section 2.06. (a) The Borrower may at any time request any of the following Conversions of the terms of the Loan in order to facilitate prudent debt management:

- (i) a change of the Loan Currency of all or any portion of the principal amount of the Loan, whether withdrawn and outstanding or unwithdrawn, to an Approved Currency;
- (ii) a change of the interest rate basis applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding from a Floating Rate to a Fixed Rate, or vice versa; and
- (iii) the setting of limits on the Floating Rate applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding by the establishment of an Interest Rate Cap or Interest Rate Collar on said Floating Rate.

(b) Any conversion requested pursuant to subsection (a) hereinabove that is accepted by ADB shall be considered a "Conversion", as defined in Section 2.01(6) of the Loan Regulations, and shall be effected in accordance with the provisions of Article V of the Loan Regulations and the Conversion Guidelines.

### ARTICLE III

#### Use of Proceeds of the Loan

Section 3.01. (a) The Borrower shall relend the proceeds of the Loan to NTDC under a Subsidiary Loan Agreement with terms and conditions as prescribed by the Relending Policy as may be satisfactory to ADB.

(b) The Borrower shall cause the proceeds of the Loan to be applied to the financing of expenditures on the Project in accordance with the provisions of this Loan Agreement and the Project Agreement.

Section 3.02. The proceeds of the Loan shall be allocated and withdrawn in accordance with the provisions of Schedule 3 to this Loan Agreement, as such Schedule may be amended from time to time by agreement between the Borrower and ADB.

Section 3.03. Except as ADB may otherwise agree, the Borrower shall procure, or cause to be procured, the items of expenditure to be financed out of the proceeds of the Loan in accordance with the provisions of Schedule 4 to this Loan Agreement. ADB may refuse to finance a contract where any such item has not been procured under procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.

Section 3.04. Except as ADB may otherwise agree, the Borrower shall cause all items of expenditure financed out of the proceeds of the Loan to be used exclusively in the carrying out of the Project.



Section 3.05. The Loan Closing Date for the purposes of Section 9.02 of the Loan Regulations shall be 31 December 2020 or such other date as may from time to time be agreed between the Borrower and ADB.

## ARTICLE IV

### Particular Covenants

Section 4.01. (a) The Borrower shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound applicable technical, financial, business, and development practices.

(b) In the carrying out of the Project and operation of the Project facilities, the Borrower shall perform, or cause to be performed, all obligations set forth in Schedule 5 to this Loan Agreement and the Project Agreement.

Section 4.02. The Borrower shall make available, or cause to be made available, promptly as needed, and on terms and conditions acceptable to ADB, the funds, facilities, services, land and other resources, as required, in addition to the proceeds of the Loan, for the carrying out of the Project.

Section 4.03. The Borrower shall ensure that the activities of its departments and agencies with respect to the carrying out of the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.

Section 4.04. The Borrower shall enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.

Section 4.05. ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements for the Project within 14 days of the date of ADB's confirmation of their acceptability by posting them on ADB's website.

Section 4.06. The Borrower shall take all actions which shall be necessary on its part to enable NTDC to perform its obligations under the Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations.

Section 4.07. (a) The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan.

(b) No rights or obligations under the Subsidiary Loan Agreement shall be assigned, amended, abrogated or waived without the prior concurrence of ADB.

**ARTICLE V****Suspension; Acceleration of Maturity**

Section 5.01. The following is specified as an additional event for suspension of the right of the Borrower to make withdrawals from the Loan Account for the purposes of Section 9.01(l) of the Loan Regulations: the Borrower or NTDC shall have failed to perform any of its obligations under the Subsidiary Loan Agreement.

Section 5.02. The following is specified as an additional event for acceleration of maturity for the purposes of Section 9.07(a)(iv) of the Loan Regulations: the event specified in Section 5.01 of this Loan Agreement shall have occurred.

**ARTICLE VI****Effectiveness**

Section 6.01. The following is specified as an additional condition to the effectiveness of this Loan Agreement for the purposes of Section 10.01(f) of the Loan Regulations: the Special Operations Loan Agreement shall have been duly authorized, executed and delivered on behalf of the Borrower and all conditions precedent to its effectiveness (other than a condition requiring the effectiveness of this Loan Agreement) shall have been fulfilled.

Section 6.02. The following is specified as an additional matter, for the purposes of Section 10.02(d) of the Loan Regulations, to be included in the opinion or opinions to be furnished to ADB: that the Special Operations Loan Agreement has been duly authorized, executed and delivered on behalf of the Borrower and is legally binding upon the Borrower in accordance with its terms.

Section 6.03. A date 90 days after the date of this Loan Agreement is specified for the effectiveness of this Loan Agreement for the purposes of Section 10.04 of the Loan Regulations.

**ARTICLE VII****Delegation of Authority**

Section 7.01. The Borrower hereby designates NTDC as its agent for the purposes of taking any action or entering into any agreement required or permitted under Sections 3.02, 3.03 and 3.05 of this Loan Agreement and under Sections 6.01, 6.02, 6.03 and 6.04 of the Loan Regulations.

Section 7.02. Any action taken or any agreement entered into by NTDC pursuant to the authority conferred under Section 7.01 of this Loan Agreement shall be fully binding on the Borrower and shall have the same force and effect as if taken by the Borrower.

Section 7.03. The authority conferred on NTDC under Section 7.01 of this Loan Agreement may be revoked or modified by agreement between the Borrower and ADB.

## ARTICLE VIII

### Miscellaneous

Section 8.01. The Secretary, Economic Affairs Division, Ministry of Finance, Revenue, Economic Affairs, Statistics and Privatization of the Borrower is designated as representative of the Borrower for the purposes of Section 12.02 of the Loan Regulations.

Section 8.02. The following addresses are specified for the purposes of Section 12.01 of the Loan Regulations:

#### For the Borrower

Secretary  
Economic Affairs Division  
Ministry of Finance, Revenue, Economic Affairs,  
Statistics and Privatization  
Islamabad, Pakistan

Facsimile Number:

(92-51) 910 4016

#### For ADB

Asian Development Bank  
6 ADB Avenue  
Mandaluyong City  
1550 Metro Manila  
Philippines

Facsimile Number:

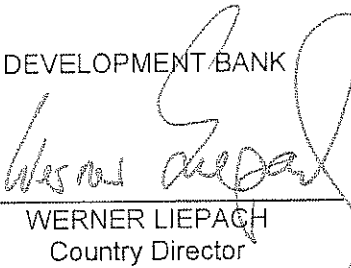
(632) 636-2444.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Loan Agreement to be signed in their respective names as of the day and year first above written and to be delivered at the principal office of ADB.

ISLAMIC REPUBLIC OF PAKISTAN

By   
TARIQ BAJWA  
Secretary  
Economic Affairs Division

ASIAN DEVELOPMENT BANK

By   
WERNER LIEPACH  
Country Director  
Pakistan Resident Mission

**SCHEDULE 1****Description of the Project**

1. The objective of the Investment Program is the improved coverage, reliability and quality of power transmission service in Pakistan.
2. As a part of the Investment Program, the Project aims to improve the coverage, reliability and quality of power transmission service in the Project areas.
3. The Project shall consist of the following:

Investment Component

- (a) the extension of the 500 kV Sahiwal substation, including the procurement and installation of one 600 MVA 500/220 kV transformer along with its allied equipment and accessories;
- (b) the extension of the 500 kV Lahore South substation and grid station, including the procurement and installation of one 750 MVA 500/220 kV transformer and two 500 kV line bays, along with their allied equipment and accessories;
- (c) the extension and augmentation of the 500/220 kV Rewat substation, including the procurement and installation of one 220/132 kV 250 MVA transformer along with its allied equipment and the replacement of one existing 220/132 kV 160 MVA transformer by one 220/132 kV 250 MVA transformer;
- (d) the rehabilitation of 11 substations in the southern region of NTDC's system in order to avoid frequent tripping and improve system reliability, including the procurement and installation of a shunt reactor and additional protection equipment including protection relays, fault recorders, fault locators and event recorders;
- (e) the construction of the Faisalabad West (Phase-II) 500 kV substation, including the procurement and installation of: (i) approximately 32 kilometers of 500 kV dual circuit transmission line in/out of the 500 kV Multan-Gatti single circuit transmission line at the 500 kV Faisalabad West substation; (ii) approximately 84 kilometers of 220 kV double circuit transmission line from the 500 kV Faisalabad West substation to the 220 kV Lalian new substation; and (iii) the extension at the 500 kV Faisalabad West substation for two 500 kV line bays and two 220 kV line bays, and the extension at the 220 kV Lalian substation for two 220 kV line bays;
- (f) the construction of facilities for the dispersal of power from the 747 megawatt power plant at Guddu, including the installation of (i) approximately 20 kilometers of 500 kV transmission line for looping

in/out of the D. G. Khan – Multan 500 kV Muzaffargarh substation, and  
(ii) approximately 261 kilometers of 500 kV transmission line from the Guddu new substation to the Muzaffargarh substation;

Support Component

- (g) the provision of support for the management and implementation of the Subprojects, including the monitoring of their physical progress and safeguards compliance;
- (h) the preparation of a capacity development plan and the provision of training, resources and capacity support to NTDC for the planning, construction, operation, maintenance, management and monitoring of the high voltage power transmission system servicing the territory of the Borrower; this includes the preparation of an action plan to comply with the mandated quota of 10% employment of women;
- (i) the updating of the policies and procedures of NTDC in order to align them and, ultimately, the day to day business operations of NTDC with the international best practice for power transmission operations, including the development and preparation of safety manuals and the development and implementation of a professional project management and information system; and
- (j) the preparation of projects to be financed by future tranches of the Facility,

all as more fully described in the PFR.

4. The investment component of the Project is expected to be completed by 30 June 2020. The support component of the Project is expected to be completed by 26 February 2026.

## SCHEDULE 2

## Amortization Schedule

## (Second Power Transmission Enhancement Investment Program - Project 1)

1. The following table sets forth the Principal Payment Dates of the Loan and the percentage of the total principal amount of the Loan payable on each Principal Payment Date (Installment Share). If the proceeds of the Loan shall have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined by ADB by multiplying: (a) the total principal amount of the Loan withdrawn and outstanding as of the first Principal Payment Date; by (b) the Installment Share for each Principal Payment Date, such repayment amount to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

| Payment Due     | Installment Share<br>(Expressed as a %) |
|-----------------|---|
| 1 December 2020 | 1.600000                                |
| 1 June 2021     | 1.600000                                |
| 1 December 2021 | 1.600000                                |
| 1 June 2022     | 1.600000                                |
| 1 December 2022 | 1.600000                                |
| 1 June 2023     | 1.650000                                |
| 1 December 2023 | 1.650000                                |
| 1 June 2024     | 1.650000                                |
| 1 December 2024 | 1.650000                                |
| 1 June 2025     | 1.650000                                |
| 1 December 2025 | 1.900000                                |
| 1 June 2026     | 1.900000                                |
| 1 December 2026 | 1.900000                                |
| 1 June 2027     | 1.900000                                |
| 1 December 2027 | 2.200000                                |
| 1 June 2028     | 2.200000                                |
| 1 December 2028 | 2.400000                                |
| 1 June 2029     | 2.400000                                |
| 1 December 2029 | 2.500000                                |
| 1 June 2030     | 2.500000                                |
| 1 December 2030 | 2.600000                                |
| 1 June 2031     | 2.600000                                |
| 1 December 2031 | 2.800000                                |
| 1 June 2032     | 2.800000                                |
| 1 December 2032 | 2.800000                                |
| 1 June 2033     | 2.800000                                |
| 1 December 2033 | 2.800000                                |
| 1 June 2034     | 2.850000                                |

Schedule 2

|                 |            |
|-----------------|------------|
| 1 December 2034 | 3.150000   |
| 1 June 2035     | 3.150000   |
| 1 December 2035 | 2.800000   |
| 1 June 2036     | 2.800000   |
| 1 December 2036 | 2.800000   |
| 1 June 2037     | 2.800000   |
| 1 December 2037 | 2.800000   |
| 1 June 2038     | 2.800000   |
| 1 December 2038 | 2.800000   |
| 1 June 2039     | 2.800000   |
| 1 December 2039 | 2.800000   |
| 1 June 2040     | 2.800000   |
| 1 December 2040 | 2.800000   |
| 1 June 2041     | 2.800000   |
| Total           | 100.000000 |



2. If the proceeds of the Loan shall not have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined as follows:

(a) To the extent that any proceeds of the Loan shall have been withdrawn as of the first Principal Payment Date, the Borrower shall repay the amount withdrawn and outstanding as of such date in accordance with paragraph 1 of this Schedule.

(b) Any withdrawal made after the first Principal Payment Date shall be repaid on each Principal Payment Date falling after the date of such withdrawal in amounts determined by ADB by multiplying the amount of each such withdrawal by a fraction, the numerator of which shall be the original Installment Share specified in the table in paragraph 1 of this Schedule for said Principal Payment Date (the Original Installment Share) and the denominator of which shall be the sum of all remaining Original Installment Shares for Principal Payment Dates falling on or after such date, such repayment amounts to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

3. Withdrawals made within two calendar months prior to any Principal Payment Date shall, for the purposes solely of calculating the principal amounts payable on any Principal Payment Date, be treated as withdrawn and outstanding on the second Principal Payment Date following the date of withdrawal and shall be repayable on each Principal Payment Date commencing with the second Principal Payment Date following the date of withdrawal.

4. Notwithstanding the provisions of paragraphs 1 and 2 of this Schedule, upon a Currency Conversion of all or any portion of the withdrawn principal amount of the Loan to an Approved Currency, the amount so converted in said Approved Currency that shall be repayable on any Principal Payment Date occurring during the Conversion Period, shall be determined by ADB by multiplying such amount in its currency of denomination immediately prior to said Conversion by either: (i) the exchange rate that reflects the amounts of principal in said Approved Currency payable by ADB under the Currency Hedge Transaction relating to said Conversion; or (ii) if ADB so determines in accordance with the Conversion Guidelines, the exchange rate component of the Screen Rate.

5. If the principal amount of the Loan withdrawn and outstanding from time to time shall be denominated in more than one Loan Currency, the provisions of this Schedule shall apply separately to the amount denominated in each Loan Currency, so as to produce a separate amortization schedule for each such amount.

**SCHEDULE 3****Allocation and Withdrawal of Loan Proceeds**General

1. The table attached to this Schedule sets forth the Categories of items of expenditure to be financed out of the proceeds of the Loan and the allocation of the Loan proceeds to each such Category ("Table."). (Reference to "Category" in this Schedule is to a Category of the Table).

Basis for Withdrawal from the Loan Account

2. Except as ADB may otherwise agree, the proceeds of the Loan shall be disbursed on the basis of the withdrawal percentage for each item of expenditure set forth in the Table.

Interest and Commitment Charges

3. The amount allocated to Category 2 is for financing interest and commitment charges on the Loan during the implementation period of the Project. ADB shall be entitled to withdraw from the Loan Account and pay to itself, on behalf of the Borrower, the amounts required to meet payments, when due, of such interest and commitment charges.

Reallocation

4. Notwithstanding the allocation of the Loan proceeds and the withdrawal percentages set forth in the Table,

- (a) if the amount of the Loan allocated to any Category appears to be insufficient to finance all agreed expenditures in that Category, ADB may, by notice to the Borrower, (i) reallocate to such Category, to the extent required to meet the estimated shortfall, amounts of the Loan which have been allocated to another Category but, in the opinion of ADB, are not needed to meet other expenditures, and (ii) if such reallocation cannot fully meet the estimated shortfall, reduce the withdrawal percentage applicable to such expenditures in order that further withdrawals under such Category may continue until all expenditures thereunder shall have been made; and
- (b) if the amount of the Loan allocated to any Category appears to exceed all agreed expenditures in that Category, ADB may, by notice to the Borrower, reallocate such excess amount to any other Category.

Disbursement Procedures

5. Except as ADB may otherwise agree, the Loan proceeds shall be disbursed in accordance with the Loan Disbursement Handbook.

Retroactive Financing

6. Withdrawals from the Loan Account may be made to finance eligible expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement, in connection with Goods and Works, subject to a maximum amount equivalent to 20% of the Loan amount.

Condition for Withdrawals from Loan Account

7. Notwithstanding any other provision of this Loan Agreement to the contrary, no withdrawals (other than in relation to interest and commitment charges for the Loan in accordance with paragraph 3 above) shall be made from the Loan Account until ADB has received a certified copy of the duly executed and effective Subsidiary Loan Agreement between the Borrower and NTDC.

TABLE

| ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS<br>(Second Power Transmission Enhancement Investment Program - Project 1) |                                    |  |  |
|--|------------------------------------|--|--|
| Number   | Item                               | Total Amount Allocated<br>for ADB Financing (\$) | Basis for Withdrawal from the<br>Loan Amount |
|  |                                    | <b>Category</b>                                  |  |
| 1  | Works and Equipment**              | 93,100,000                                       | 100% of total expenditure claimed*           |
| 2  | Interest and Commitment<br>Charges | 2,900,000  | 100% of amounts due                          |
| 3  | Unallocated                        | 19,000,000                                       |  |
|  | <b>Total</b>                       | <b>115,000,000</b>                               |  |

\* Exclusive of taxes and duties imposed within the territory of the Borrower.

\*\* Subject to the condition for withdrawal described in paragraph 7 of Schedule 3.

**SCHEDULE 4****Procurement of Goods and Works**General

1. The procurement of Goods and Works shall be subject to and governed by the Procurement Guidelines.
2. Except as ADB may otherwise agree, Goods and Works shall be procured only on the basis of the procurement methods set forth below. These methods are subject to, among other things, the detailed arrangements and threshold values set forth in the Procurement Plan. The Borrower may only modify the procurement methods or threshold values with the prior agreement of ADB, and modifications must be set out in updates to the Procurement Plan.
3. All terms used in this Schedule and not otherwise defined in this Loan Agreement have the meanings provided in the Procurement Guidelines.

Goods and Works

4. Goods and Works shall be procured on the basis of the methods of procurement set forth below:
  - (a) International Competitive Bidding; and
  - (b) Shopping.

Domestic Preference

5. The Borrower may grant a margin of preference in the evaluation of bids under international competitive bidding in accordance with paragraphs 2.55(a) and 2.56 of the Procurement Guidelines for domestically manufactured Goods and paragraphs 2.55(b) and 2.56 of the Procurement Guidelines for domestic Works.

Conditions for Award of Contracts

6. The Borrower shall not award any Works contract for a Subproject which involves environmental impacts until NTDC has:
  - (a) obtained the final approval of the IEE for such Subproject from the relevant provincial Environmental Protection Agency; and
  - (b) incorporated the relevant provisions from the EMP of such Subproject into the Works contract for such Subproject.
7. Subject to paragraph 8 below, the Borrower shall not award any Works contract for a Subproject involving involuntary resettlement impacts until the Borrower has prepared and submitted to ADB the final RP for such Subproject based on the detailed design of such Subproject, and obtained ADB's clearance of such RP.

8. The Borrower may award a contract for Works for a Subproject involving involuntary resettlement impacts prior to the final RP for such Subproject having been submitted and cleared by ADB provided that the contract:

- (a) is of a "design and build" or "turnkey" type under which the design of the Subproject must be completed before the RP is finalized; and
- (b) expressly provides that the installation and construction phase (and commencement thereof) is strictly conditional upon: (i) the final RP based on the detailed design of the Subproject having been submitted to, and cleared by, ADB; and (ii) the Borrower having notified the contractor and ADB in writing that due consultation, compensation payments and other entitlements have been provided to affected people fully in accordance with the RP.

#### Industrial or Intellectual Property Rights

9. (a) The Borrower shall ensure that all Goods and Works procured (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party.

(b) The Borrower shall ensure that all contracts for the procurement of Goods and Works contain appropriate representations, warranties and, if appropriate, indemnities from the contractor or supplier with respect to the matters referred to in subparagraph (a) of this paragraph.

#### ADB's Review of Procurement Decisions

10. Contracts procured under international competitive bidding procedures shall be subject to prior review by ADB, unless otherwise agreed between the Borrower and ADB and set forth in the Procurement Plan.

11. In the case of a contract for Goods or Works, which is subject to ADB's prior review, the Borrower shall seek ADB's prior approval of any modification or waiver of the terms and conditions of the contract, including:

- (a) granting an extension of the stipulated time for completion of a contract for a period of 1 month or more, or which is likely to require an extension of the Loan Closing Date, and
- (b) increases in aggregate of the original price by more than 5% (for the avoidance of doubt, such increase shall take into account any previous change under such contract).

12. In the case of a contract for Goods or Works, which is subject to ADB's post review, ADB shall review the required contract modification or waiver and respond to the Borrower as soon as practicable, but not later than 1 month after the receipt of the required document.

13. The Borrower shall provide to ADB copies of all time extensions, modifications or waivers to the contracts (including change orders) within 1 month following the amendment of the contract.

**SCHEDULE 5****Execution of Project**Implementation Arrangements

1. The Borrower shall ensure and cause NTDC to ensure that the Project is implemented in accordance with the detailed arrangements set forth in the FAM. Any subsequent change to the FAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the FAM on the one hand, and the Loan Agreements or the Project Agreement on the other, the provisions of the Loan Agreements and the Project Agreement shall prevail.

2. The Borrower shall ensure and cause NTDC to ensure that the PMU is adequately staffed and equipped in accordance with and as contemplated by the FAM, and that the PMU is fully functioning, until the completion of the Project. The Borrower shall further ensure and cause NTDC to ensure that, at all times during the implementation of the Project, the PMU shall be staffed with personnel, each of whom is fully qualified to carry out his assigned functions and responsibilities and familiar with and knowledgeable about the details of the Subprojects for which he is responsible, and all of whom together are familiar with and knowledgeable about the requirements of the applicable policies, rules and regulations of ADB including, but not limited to, the Procurement Guidelines, Consulting Guidelines, Safeguard Policy Statement and Loan Disbursement Handbook of ADB.

Environment

3. The Borrower shall ensure and cause NTDC to ensure that the preparation, design, construction, implementation, operation and decommissioning of each Subproject comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the IEE and EMP of such Subproject, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

Land Acquisition and Involuntary Resettlement

4. The Borrower shall ensure and cause NTDC to ensure that all land and all rights-of-way required for each Subproject involving involuntary resettlement impacts are made available to the Works contractor for such Subproject in accordance with the schedule agreed under the Works contract for such Subproject and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c) the RF; and (d) all measures and requirements set forth in the RP for such Subproject, and any corrective or preventative actions set forth in a Safeguards Monitoring Report. For the avoidance of doubt, the Borrower shall ensure and cause NTDC to ensure that no land is acquired, for the purpose of any Subproject, under the emergency acquisition provisions of the Borrower's Land Acquisition Act (1894), as amended from time to time.

5. Without limiting the application of the Involuntary Resettlement Safeguards, the RF or the RPs, the Borrower shall ensure and cause NTDC to ensure that no physical or



economic displacement takes place in connection with any Subproject involving involuntary resettlement impacts until:

- (a) compensation and other entitlements have been provided to affected people in accordance with the RP for such Subproject; and
- (b) a comprehensive income and livelihood restoration program has been established in accordance with the RP for such Subproject.

#### Indigenous Peoples

6. The Borrower shall ensure and cause NTDC to ensure that the Project does not have any indigenous peoples impact within the meaning of the SPS. In the event that the Project does have any such impact, the Borrower shall take or cause NTDC to take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower and with the SPS.

#### Human and Financial Resources to Implement Safeguards Requirements

7. The Borrower shall make available or cause NTDC to make available necessary budgetary and human resources to fully implement the EMPs and the RPs.

#### Safeguards – Related Provisions in Bidding Documents and Works Contracts

8. The Borrower shall ensure and cause NTDC to ensure that all bidding documents and contracts for the Works for a Subproject contain provisions that require the contractor for such Subproject to:

- (a) comply with the measures and requirements relevant to the contractor set forth in the IEE and EMP for such Subproject, and in the RP for such Subproject (if any), to the extent they concern impacts on affected people during construction, and any corrective or preventative actions set out in a Safeguards Monitoring Report;
- (b) make available a budget for all such environmental and social measures;
- (c) provide the Borrower with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, implementation or operation of such Subproject that were not considered in the IEE or EMP for such Subproject, or in the RP for such Subproject (if any);
- (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and
- (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.

Safeguards Monitoring and Reporting

9. The Borrower shall do the following or cause NTDC to do the following:
- (a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;
  - (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEEs, the EMPs or the RPs, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and
  - (c) report any actual or potential breach of compliance with the measures and requirements set forth in an EMP or RP promptly after becoming aware of the breach.

Prohibited List of Investments

10. The Borrower shall ensure and cause NTDC to ensure that no proceeds of the Loans are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.

Labor Standards, Health and Safety

11. The Borrower shall ensure and cause NTDC to ensure that the core labor standards and the Borrower's applicable laws and regulations are complied with during Project implementation. The Borrower shall include or cause NTDC to include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (a) comply with the Borrower's applicable labor law and regulations and incorporate applicable workplace occupational safety norms, standards and laws; (b) do not use child labor; (c) do not discriminate workers in respect of employment and occupation; (d) do not use forced labor; (e) allow freedom of association and effectively recognize the right to collective bargaining; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.

12. The Borrower shall strictly monitor or cause NTDC to strictly monitor compliance with the requirements set forth in paragraph 11 above and provide ADB with regular reports.

Gender and Development

13. The Borrower shall ensure and cause NTDC to ensure that the principles of gender equity aimed at increasing Project benefits and impacts on women in the Project area consistent with ADB's Policy on Gender and Development (1998) are followed during implementation of the Project, including (a) equal pay to men and women for work of equal value; (b) enabling working conditions for women workers; and (c) taking necessary actions

to encourage women living in the Project area to participate in the design and implementation of Project activities.

#### Counterpart Support

14. The Borrower shall make available or cause NTDC to make available adequate counterpart funds and other resources in addition to the proceeds of the Loans, and have such counterpart funds and resources released in a timely manner, for the successful implementation of the Project.

#### Financial Covenants

15. Except as ADB may otherwise agree, the Borrower shall cause NTDC to ensure that, for the fiscal year beginning 1 July 2016 and for each fiscal year thereafter, (i) the free cash flows of NTDC for the current fiscal year shall be at least 1.2 times the debt service requirements for the same period on all debt based on NTDC's financial statements; and (ii) the free cash flows of NTDC from operations after debt service requirements is at least 20% of the average capital expenditure for the previous fiscal year and the current fiscal year. For the purposes of this paragraph 15:

- (a) the term "capital expenditures" means all expenses incurred on fixed assets, including interest charged to construction, related to operations;
- (b) the term "debt" means any indebtedness of NTDC maturing by its term more than 1 year from the date on which it was originally incurred;
- (c) the term "debt service requirements" means the aggregate amount of all repayments (including sinking fund payments and lease payments under finance leases), whether or not actually paid, and interest and other charges on debt, provided that interest and other charges on debt that are incurred in financing capital expenditure that will be capitalized are excluded;
- (d) the term "free cash flows" means the difference between (i) the sum of cash flows from all sources related to operations, sale of assets, miscellaneous income, decrease in working capital other than cash; and (ii) the sum of all expenses related to operations, including administration, adequate maintenance, taxes and payments in lieu of taxes (excluding the provision for depreciation, other non-operating charges, and taxes), all cash dividends paid, increase in working capital other than cash, other than capital expenditures; and
- (e) the term "working capital other than cash" means the difference between current assets excluding cash and cash equivalents, and current liabilities, at the end of each fiscal year.

16. The Borrower shall ensure and cause NTDC to ensure that, for the fiscal year 1 July 2017 to 30 June 2018, and for each fiscal year after that until both of the Loan Agreements have terminated, the accounts receivable of NTDC as at the end of such fiscal

year divided by the annual revenues of NTDC for that fiscal year multiplied by 360 days shall be less than 180 days based on the audited financial statements of NTDC. For the purposes of this paragraph 16:

- (a) "accounts receivable" means amounts due from others for goods and services delivered in the normal course of business; and
- (b) "annual revenues" means the inflows of assets from selling goods and providing services to customers within the current fiscal year, including the reduction of liabilities from selling goods and providing services to customers.

#### Operational Covenants and Sector Covenants

17. The Borrower shall ensure and cause NTDC to ensure that (a) the extension, augmentation, rehabilitation, construction and installation of all Project facilities are done in accordance with design specifications and construction norms; and (b) construction supervision, quality control and contract management are performed in accordance with best international industry practices.

18. The Borrower shall cause NTDC to operate, maintain and manage all Project facilities extended, augmented, rehabilitated, constructed and installed under the Project in accordance with NTDC's transmission license, the Borrower's national grid code and other applicable standards, and (in all other respects not covered by the said license, grid code and other standards) best international industry practices. The Borrower shall cause NTDC to provide proper technical supervision and adequate funds for this purpose and all funds required shall be allocated annually and released promptly.

19. The Borrower shall ensure and cause NTDC to ensure that ADB's written consent is obtained at least 6 months prior to the implementation of any of the following: (a) change in ownership of any asset, facility or structure financed under the Project; (b) sale, transfer, or assignment of interest or control in any asset, facility or structure financed under the Project; or (c) lease or other contract or modification of the functions and authority of NTDC over the operation and maintenance of any asset, facility or structure financed under the Project. The Borrower shall ensure and cause NTDC to ensure that ADB is promptly notified of any proposal to implement any such changes and that the notification includes sufficient details regarding the change to be implemented. The Borrower shall ensure and cause NTDC to ensure that any such changes will be carried out in a legal and transparent manner.

20. The Borrower shall cause NTDC to promptly submit tariff petitions when and as required in order to maintain NTDC's financial viability. Following any tariff determination by NEPRA, the Borrower shall notify the tariff determination promptly and, in any case, by the dates prescribed by applicable law. The Borrower shall ensure that any and all tariffs formulated for NTDC are adequate to cover the operating costs, maintenance, depreciation and financing costs of NTDC and allow an acceptable return on its equity.

21. The Borrower shall cause NTDC to submit the following documents to ADB within 90 days after the execution of this Loan Agreement, and within 270 days after the end of each calendar year until both of the Loan Agreements have terminated (each date on

which NTDC makes a submission of documents to ADB under this paragraph 21 called a "date of submission" in sub-paragraphs (a) to (c) below:

- (a) the investment plan/s of NTDC, as required under the NEPRA Investment Standards and Procedures (Transmission and Distribution) Rules, 2015, as of the date of submission;
- (b) the short-term (1 year) investment report of NTDC for each of the last 5 years prior to the date of submission; and
- (c) the forecasts of NTDC as to load growth for the next 5 years after the date of submission.

22. The Borrower shall ensure and cause NTDC to ensure that NTDC preserves its legal, operational, and financial autonomy and, further, that its Board of Directors operates effectively, and discharges their fiduciary responsibilities fully, in accordance with the Memorandum and Articles of Association of NTDC.

23. The Borrower shall ensure and cause NTDC to ensure that any change in the ownership of NTDC or sale, transfer, or assignment of the Borrower's interest or shares in NTDC will be formally approved and implemented only after consultation with ADB at least 3 months prior to the change, sale, transfer or assignment. The Borrower shall ensure that the proceeds of the Loans remain available to NTDC on the same terms and conditions in the event that NTDC is privatized.

24. The Borrower shall ensure and cause NTDC to ensure that ADB is kept informed of the Borrower's policies and programs related to the power sector, particularly those that relate to the power transmission sector, tariff regulation, or any policy or program that could materially affect the financial viability of NTDC or the Project.

25. The Borrower shall cause NTDC to furnish to ADB, no later than 31 December 2016, copies of the audited financial statements of NTDC for the fiscal year 1 July 2014 to 30 June 2015, including the auditor's opinion thereon, all in the English language. The Borrower and NTDC acknowledge and agree that the submission of such audited financial statements and auditor's opinion shall be a condition to the holding by ADB of its staff review meeting or management review meeting (as the case may be) for the processing of the second tranche under the Facility.

#### Governance and Anticorruption

26. The Borrower and NTDC shall (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.

27. The Borrower and NTDC shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing

and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project.

28. The Borrower shall cause NTDC to provide updated information on the Project on its website, including information on the performance of the Project and the Subprojects, business opportunities, bidding process and guidelines, outcome of biddings and summary progress reports.