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LOAN NUMBER 3476-PAK

LOAN AGREEMENT  
(Ordinary Operations)  
(Access to Clean Energy Investment Program)

between

ISLAMIC REPUBLIC OF PAKISTAN

and

ASIAN DEVELOPMENT BANK

DATED 07 February 2017

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PAK 49056

**LOAN AGREEMENT  
(Ordinary Operations)**

LOAN AGREEMENT dated 07 February 2017 between ISLAMIC REPUBLIC OF PAKISTAN ("Borrower") and ASIAN DEVELOPMENT BANK ("ADB").

WHEREAS

(A) the Borrower has applied to ADB for a loan for the purposes of the Program described in Schedule 1 to this Loan Agreement;

(B) the Khyber Pakhtunkhwa Component of the Program will be carried out by ED Khyber Pakhtunkhwa and PEDO, and the Punjab Component of the Program will be carried out by EDP and CEP, and for this purpose the Borrower will make available to ED Khyber Pakhtunkhwa and PEDO, through Khyber Pakhtunkhwa, and to EDP and CEP, through Punjab, the proceeds of the loan provided for herein upon terms and conditions mutually satisfactory to the Borrower and ADB; and

(C) ADB has agreed to make a loan to the Borrower from ADB's ordinary capital resources upon the terms and conditions set forth herein;

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 2.01(49) is deleted and the following is substituted therefor:

49. The term "Program" means the program for which ADB has agreed to make the Loan, as described in the Loan Agreement and as such description may be amended from time to time by agreement between ADB and the Borrower.

(b) The term "Project" wherever it appears in the Loan Regulations shall be substituted by the term "Program".

- (c) Section 2.01(51) is deleted and the following is substituted therefor:

51. The term "Program Executing Agency" means the entity or entities responsible for the carrying out of the Program as specified in the Loan Agreement.

- (d) The term "Project Executing Agency" wherever it appears in the Loan Regulations shall be substituted by the term "Program Executing Agency".

- (e) 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.

- (f) 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.

(g) 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) "Anticorruption Guidelines" means ADB's Guidelines to Prevent or Mitigate Fraud, Corruption and Other Prohibited Activities in Results-Based Lending for Programs as set forth in Appendix 7 to ADB's policy on Piloting Results-Based Lending for Programs (2013);

(b) "CEP" means the Chief Engineer (Power), attached to EDP, which is responsible for carrying out the Punjab Component of the Program, or any successor thereto acceptable to ADB;

(c) "Deposit Account" means the account referred to in paragraph 2 of Schedule 3 to this Loan Agreement;

(d) "DLI" means each disbursement-linked indicator as set forth in the DLI Matrix;

(e) "DLI Matrix" means the DLI matrix for the Program as set forth in Attachment 2 of Schedule 3 to this Loan Agreement, as updated from time to time by the Borrower and ADB;

(f) "DLI Verification Protocol" means the protocol for verifying the Borrower's achievement of each DLI, as set forth in the PID;

(g) "ED Khyber Pakhtunkhwa" means the Energy and Power Department of Khyber Pakhtunkhwa which is responsible for carrying out the Khyber Pakhtunkhwa Component of the Program, or any successor thereto acceptable to ADB;

(h) "EDP" means the Energy Department of Punjab which is responsible for carrying out the Punjab Component of the Program, or any successor thereto acceptable to ADB;

(i) "Eligible Expenditures" means the eligible expenditures referred to in paragraph 2 of Schedule 4 to this Loan Agreement;

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

(k) "Fiscal Year" means the fiscal year of the Borrower which runs from 1 July to 30 June of each year;

(l) "High-Value Contracts" means: (i) procurement of works, turnkey and supply and installation contracts that cost \$50 million equivalent or more per contract; (ii) procurement of goods contracts that cost \$30 million equivalent or more per contract; (iii) information technology or non-consulting services contracts that cost \$20 million equivalent or more per contract; and/or (iv) consulting services contracts that cost \$15 million equivalent or more per contract;

(m) "Indigenous Peoples Safeguards" means the objectives and policy principles set forth in Chapter V, Appendix 3, and Appendix 4 (as applicable), of the SPS;

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

(o) "Khyber Pakhtunkhwa" means the Province of Khyber Pakhtunkhwa of the Borrower;

(p) "Khyber Pakhtunkhwa Component" means the activities described in paragraphs 2(a) to 2(d) of Schedule 1 to this Loan Agreement;

(q) "Khyber Pakhtunkhwa Power Sector Program" means the 2016 Power Sector Master Plan of the Province of Khyber Pakhtunkhwa, Pakistan, which is supported by the Program;

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

(s) "PEDO" means Pakhtunkhwa Energy Development Organization which is responsible for carrying out the Khyber Pakhtunkhwa Component of the Program, or any successor thereto acceptable to ADB;

(t) "PID" means the program implementation document for the Program dated 20 October 2016, as updated from time to time by the Borrower and ADB;

(u) "Program Action Plan" means the action plan for the Program dated 20 October 2016, as updated from time to time by the Borrower and ADB;

(v) "Program Actions" means the actions set out in the Program Action Plan;

(w) "Program Completion Date" means the date set out in paragraph 3 of Schedule 1 to this Loan Agreement, or such other date as the Borrower and ADB may agree;

(x) "Punjab" means the Province of Punjab of the Borrower;

(y) "Punjab Component" means the activities described in paragraphs 2(e) to 2(i) of Schedule 1 to this Loan Agreement;

(z) "Punjab Power Sector Program" means the 2016 Power Sector Road Map for the Province of Punjab, Pakistan, which is supported by the Program;

(aa) "SPS" means ADB's Safeguard Policy Statement (2009); and

(bb) "Table" means the table on the allocation and withdrawal of Loan proceeds set forth in Attachment 1 of Schedule 3 to this Loan Agreement.

## ARTICLE II

### The Loan

Section 2.01. (a) ADB agrees to lend to the Borrower from ADB's ordinary capital resources an amount of three hundred twenty five million Dollars (\$325,000,000), 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 20 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 April and 1 October 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. The Borrower shall make the proceeds of the Loan available to ED Khyber Pakhtunkhwa and PEDO, through Khyber Pakhtunkhwa, and to EDP and CEP, through Punjab, upon terms and conditions mutually satisfactory to the Borrower and ADB. The Borrower shall cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to apply such proceeds to the financing of expenditures of the Program in accordance with the provisions of this Loan 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. The Loan Closing Date for the purposes of Section 9.02 of the Loan Regulations shall be 31 December 2021 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 Program 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 Program, the Borrower shall perform, or cause to be performed, all obligations set forth in Schedule 4 to this Loan Agreement.

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

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

Section 4.04. (a) The Borrower shall cause PEDO with respect to the Khyber Pakhtunkhwa Component of the Program, and CEP with respect to the Punjab Component of the Program, to: (i) maintain separate accounts and records for the respective component of the Program; (ii) prepare annual program financial statements for the respective component of the Program in accordance with financial reporting standards acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with auditing standards acceptable to ADB; (iv) as part of each such audit, have



the auditors prepare a report, which includes the auditors' opinion(s) on such financial statements and the use of the Loan proceeds, and a management letter (which sets out the deficiencies in the internal control of the respective component of the Program that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the end of each related fiscal year, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(b) ADB shall disclose the annual audited program financial statements for the Khyber Pakhtunkhwa Component of the Program and for the Punjab Component of the Program, and the opinion of the auditors on the program financial statements for the Khyber Pakhtunkhwa Component of the Program and for the Punjab Component of the Program, within 14 days of the date of ADB's confirmation of their acceptability by posting them on ADB's website.

(c) The Borrower shall enable ADB, upon ADB's request, to discuss the program financial statements for the Khyber Pakhtunkhwa Component of the Program, the program financial statements for the Punjab Component of the Program, and the Borrower's financial affairs where they relate to the Program with the auditors appointed pursuant to subsection (a)(iii) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the Borrower, unless the Borrower shall otherwise agree.

Section 4.05. As part of the reports and information referred to in Section 7.04 of the Loan Regulations, the Borrower shall furnish, or cause to be furnished, to ADB: (a) semiannual reports on the implementation of the Program, including the accomplishment of the DLIs, the carrying out of the Program Actions and the Eligible Expenditures; and (b) as ADB shall reasonably request, additional information in connection with the reports described in subsection (a) hereinabove and other information on Program implementation.

Section 4.06. The Borrower shall enable ADB's representatives to inspect the Program and any relevant records and documents.

## **ARTICLE V**

### **Effectiveness**

Section 5.01. 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 VI**

**Miscellaneous**

Section 6.01. 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 6.02. 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

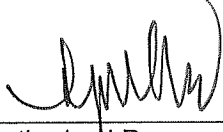
Asian Development Bank  
6 ADB Avenue  
Mandaluyong City  
1550 Metro Manila  
Philippines

Facsimile Number:

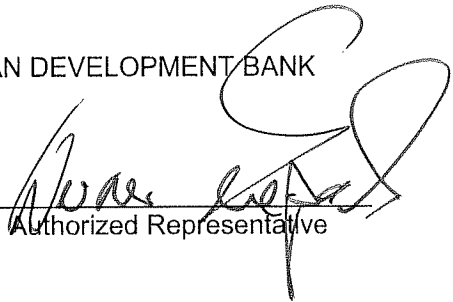
(632) 636-2444.

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   
Authorized Representative

ASIAN DEVELOPMENT BANK

By   
Authorized Representative

**SCHEDULE 1****Description of the Program**

1. The objective of the Program is to support the implementation of the Khyber Pakhtunkhwa Power Sector Program and the Punjab Power Sector Program in increasing access to sustainable and more reliable electricity services, particularly for vulnerable communities in Khyber Pakhtunkhwa and Punjab.

2. The Program shall include:

Khyber Pakhtunkhwa Component

- (a) the installation of approximately 1,000 micro-hydropower plants in off-grid locations in Khyber Pakhtunkhwa, with at least 7% of the households connected to the micro-hydropower plants being women-headed households;
- (b) the installation of solar facilities in approximately 8,187 schools and public health facilities in Khyber Pakhtunkhwa, with at least 30% of the said schools being girls-only schools;
- (c) the provision of training to women to equip them to use the benefits resulting from the availability of electricity;
- (d) the strengthening of the procurement, monitoring and internal audit functions of Khyber Pakhtunkhwa in relation to the implementation of the Khyber Pakhtunkhwa Component of the Program, including the establishment of an information and communications technology driven Program performance monitoring system;

Punjab Component

- (e) the installation of solar facilities in approximately 17,400 schools and public health facilities in Punjab, with at least 30% of the said schools being girls-only schools;
- (f) the installation of a solar facility in the University of Bahawalpur;
- (g) the provision of training to women to equip them to use the benefits resulting from the availability of electricity;
- (h) the conduct of energy efficiency audits on public sector buildings in Punjab, including the development of a methodology proceeding from the audit recommendations, and the construction of a model net zero building and development of government standards and designs for net zero buildings based on the model; and
- (i) the strengthening of the procurement, monitoring and internal audit functions of Punjab in relation to the implementation of the Punjab

Component of the Program, including the establishment of an information and communications technology driven Program performance monitoring system.

3. The Program is expected to be completed by 30 June 2021.

**SCHEDULE 2****Amortization Schedule****(Access to Clean Energy Investment Program)**

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 (Expressed as a %)
1 April 2022	1.750000
1 October 2022	1.750000
1 April 2023	2.000000
1 October 2023	2.000000
1 April 2024	2.000000
1 October 2024	2.000000
1 April 2025	2.000000
1 October 2025	2.000000
1 April 2026	2.500000
1 October 2026	2.500000
1 April 2027	2.500000
1 October 2027	2.500000
1 April 2028	2.500000
1 October 2028	2.500000
1 April 2029	2.500000
1 October 2029	2.500000
1 April 2030	2.500000
1 October 2030	2.500000
1 April 2031	2.500000
1 October 2031	2.500000
1 April 2032	2.500000
1 October 2032	2.500000
1 April 2033	2.500000
1 October 2033	2.500000
1 April 2034	2.500000
1 October 2034	2.500000
1 April 2035	2.500000
1 October 2035	2.500000

Schedule 2

1 April 2036	2.500000
1 October 2036	2.500000
1 April 2037	2.500000
1 October 2037	3.000000
1 April 2038	3.000000
1 October 2038	3.000000
1 April 2039	3.000000
1 October 2039	3.000000
1 April 2040	3.000000
1 October 2040	3.000000
1 April 2041	3.000000
1 October 2041	3.000000
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. Except as set out in this Schedule or as ADB may otherwise agree, the Loan proceeds shall be disbursed in accordance with the Loan Disbursement Handbook.

Deposit Account

2. Prior to submitting the first application to ADB for withdrawal from the Loan Account, the Borrower shall nominate an account at the State Bank of Pakistan as the Deposit Account for the Program into which all withdrawals from the Loan Account shall be deposited.

3. The Borrower shall maintain separate records in respect of the Deposit Account in accordance with accounting principles acceptable to ADB.

Basis for Withdrawal from the Loan Account

4. (a) The Table sets out the Loan amounts allocated for withdrawal in respect of a DLI upon the Borrower's achievement of the corresponding DLI targets as set out in the DLI Matrix. The years set out in the Table are indicative. They do not restrict withdrawal on account of any DLI targets achieved whether ahead of, or later than, the indicated year, provided that such DLI targets are achieved on or before the Program Completion Date.

(b) ADB may, in consultation with the Borrower, reallocate the Loan amounts set out in the Table within the same DLI or from one DLI to any other DLI.

5. Prior to submitting any application for withdrawal from the Loan Account in respect of a DLI, the Borrower shall submit to ADB in accordance with the DLI Verification Protocol satisfactory evidence showing that: (a) such DLI has been fully achieved; or (b) for a DLI for which partial disbursement is allowed (as specified in the DLI Matrix), such DLI has been achieved to the extent required for partial disbursement under the DLI Verification Protocol. Upon ADB's confirmation that the DLI has been achieved in full or in part, the Borrower may submit to ADB an application for withdrawal of the corresponding Loan amount for such DLI.

Interest and Commitment Charges

6. The amount allocated to "Interest and Commitment Charges" in the Table is for financing interest and commitment charges on the Loan during the implementation period of the Program. 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.

Advance Financing

7. Prior to the achievement of the DLIs, the Borrower may withdraw from the Loan Account an advance financing amount for the purposes of meeting the Program's financing requirements and supporting the achievement of such DLIs, provided that the outstanding advance financing amount shall not, at any time, exceed 15% of the Loan amount. ADB shall deduct the outstanding advance financing amount, or any portion thereof, from the Loan proceeds to be disbursed upon achievement of the DLIs.

Reconciliation

8. If any DLI has not been achieved by the Program Completion Date, the Borrower shall, within 6 months of the Program Completion Date, provide a refund to ADB for any outstanding advance financing amount or part thereof for such DLI.

9. If the total Eligible Expenditures amount to less than the Loan amount withdrawn by the Borrower, the Borrower shall provide a refund to ADB for an amount equal to the extent of the shortfall within 6 months of the Program Completion Date.

TABLE

Allocation and Withdrawal of Loan Proceeds (Access to Clean Energy Investment Program) (\$ million)							
Disbursement-Linked Indicators (DLI)		Total ADB Financing Allocation	2017	2018	2019	2020	2021
DLI 1	<i>Khyber Pakhtunkhwa</i>	44.65	8.93	8.93	8.93	8.93	8.93
	<i>Punjab</i>	16.75	3.35	3.35	3.35	3.35	3.35
DLI 2	<i>Khyber Pakhtunkhwa</i>	55.85	11.17	11.17	11.17	11.17	11.17
	<i>Punjab</i>	20.90	4.18	4.18	4.18	4.18	4.18
DLI 3	<i>Khyber Pakhtunkhwa</i>	44.65	8.93	8.93	8.93	8.93	8.93
	<i>Punjab</i>	16.75	3.35	3.35	3.35	3.35	3.35
DLI 4	<i>Khyber Pakhtunkhwa</i>	15.65	3.13	3.13	3.13	3.13	3.13
	<i>Punjab</i>	6.70	1.34	1.34	1.34	1.34	1.34
DLI 5	<i>Khyber Pakhtunkhwa</i>	17.85	3.57	3.57	3.57	3.57	3.57
DLI 6	<i>Khyber Pakhtunkhwa</i>	22.34	13.40	4.47	0.00	0.00	4.47
	<i>Punjab</i>	8.36	5.02	1.67	0.00	0.00	1.67

DLI 7	<i>Khyber Pakhtunkhwa</i>	22.32	11.16	4.47	2.23	2.23	2.23
	<i>Punjab</i>	7.54	4.18	0.84	0.84	0.84	0.84
DLI 8	<i>Punjab</i>	6.69	1.67	2.51	2.51	0.00	0.00
Sub Total	<i>Khyber Pakhtunkhwa</i>	<b>223.31</b>	<b>60.29</b>	<b>44.67</b>	<b>37.96</b>	<b>37.96</b>	<b>42.43</b>
	<i>Punjab</i>	<b>83.69</b>	<b>23.09</b>	<b>17.24</b>	<b>15.57</b>	<b>13.06</b>	<b>14.73</b>
Interest and Commitment Charges		18.00					
<b>Total</b>		<b>325.00</b>					

**DLI MATRIX**  
**(Access to Clean Energy Investment Program)**

Disbursement-Linked Indicators (DLI)	Baseline and Year	2017	2018	2019	2020	2021
<b>DLI 1.</b> By 2021, access to electricity is provided to an additional 240,000 households and 2,600,000 students in un-electrified and poorly electrified areas: Khyber Pakhtunkhwa: households Khyber Pakhtunkhwa: total students Punjab: total students	0	40,000 households 500,000 students 40,000	80,000 households 1,100,000 students 80,000 320,000 780,000	120,000 households 1,600,000 students 120,000 480,000 1,120,000	180,000 households 2,100,000 students 180,000 640,000 1,460,000	240,000 households 2,600,000 students 240,000 800,000 1,800,000
		(Partial disbursement allowed)	(Partial disbursement allowed)	(Partial disbursement allowed)	(Partial disbursement allowed)	(Partial disbursement allowed)
<b>DLI 2.</b> By 2021, power generation capacity from clean energy sources is increased by an additional amount of 182 MW: Khyber Pakhtunkhwa Punjab	0 MW 0 MW 0 MW	36 MW 31 MW 5 MW	73 MW 61 MW 12 MW	109 MW 92 MW 17 MW	146 MW 123 MW 23 MW	182 MW 153 MW 29 MW
		(Partial disbursement allowed)	(Partial disbursement allowed)	(Partial disbursement allowed)	(Partial disbursement allowed)	(Partial disbursement allowed)

<b>DLI 3.</b> By 2021, at least 26,587 sites have renewable energy-based power plants installed: Khyber Pakhtunkhwa: 1,000 MHPs installed  Khyber Pakhtunkhwa: 8,187 solar plants installed Punjab: 17,400 solar plants installed	0 installed	5,317	10,635	15,952	21,270	26,587
		200 1,637 3,480 <i>(Partial disbursement allowed)</i>	400 3,275 6,960 <i>(Partial disbursement allowed)</i>	600 4,912 10,440 <i>(Partial disbursement allowed)</i>	800 6,550 13,920 <i>(Partial disbursement allowed)</i>	1,000 8,187 17,400 <i>(Partial disbursement allowed)</i>
<b>DLI 4.</b> By 2021, at least 30% of schools with solar plant installed are girls schools: a) Khyber Pakhtunkhwa b) Punjab	0%	6% 6% 6% <i>(Partial disbursement allowed)</i>	12% 12% 12% <i>(Partial disbursement allowed)</i>	18% 18% 18% <i>(Partial disbursement allowed)</i>	24% 24% 24% <i>(Partial disbursement allowed)</i>	30% 30% 30% <i>(Partial disbursement allowed)</i>
		2% <i>(Partial disbursement allowed)</i>	4% <i>(Partial disbursement allowed)</i>	5% <i>(Partial disbursement allowed)</i>	6% <i>(Partial disbursement allowed)</i>	7% <i>(Partial disbursement allowed)</i>
<b>DLI 5.</b> By 2021, at least 7% of target households newly connected to electricity are women-headed households	0%					
		<i>(Partial disbursement allowed)</i>	<i>(Partial disbursement allowed)</i>	<i>(Partial disbursement allowed)</i>	<i>(Partial disbursement allowed)</i>	<i>(Partial disbursement allowed)</i>

<sup>1</sup> Women-headed households may mean any household headed by: (i) a single woman living on her own, (ii) a widow, or woman separated from her husband for any reason, including migration, with or without children.

<p><b>DLI 6.</b> By 2021, governance, financial management and procurement functions are improved. Khyber Pakhtunkhwa energy department (PEDO)</p>	<p>No procurement unit, no internal audit</p>	<ul style="list-style-type: none"> <li>• Corporate governance structure implemented, including dedicated procurement unit</li> <li>• Internal audit department established and operationalized</li> <li>• Procurement manual adopted</li> <li>• Business model adopted for micro-hydroelectricity plants</li> <li>• Program management unit strengthened.</li> </ul>	<p>First internal audit report approved by PEDO board</p>			<p>PEDO internal performance audit report on the program produced</p>
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Energy department of Punjab (EDP)	No procurement unit, no internal audit	<ul style="list-style-type: none"> <li>• Dedicated procurement unit established.</li> <li>• Internal audit department established and operationalized</li> <li>• Procurement manual adopted</li> <li>• Program management unit strengthened.</li> </ul>	EDP internal audit report produced		EDP internal performance audit report on the program produced
DLI7. From 2017, ICT-driven program performance monitoring system (PPMS) is operationalized to produce annual performance monitoring reports on all indicators. Khyber Pakhtunkhwa	No PPMS	PPMS set up, 2017 report issued	2018 report issued on all indicators and PAP actions	2019 report issued on all indicators and PAP actions	2020 report issued on all indicators and PAP actions
Punjab		PPMS set up, 2017 report issued	2018 report issued on all indicators and PAP actions	2019 report issued on all indicators and PAP actions	2020 report issued on all indicators and PAP actions



<p><b>DLI 8.</b> DLI 8: By 2019, energy audits are conducted on 100% of identified public sector buildings and a model net zero building is constructed.</p>	<p>No energy audits</p>	<ul style="list-style-type: none"> <li>• 30% of identified public sector buildings have conducted energy audits (<i>partial disbursement allowed</i>)</li> <li>• Construction of model net zero building initiated</li> </ul>	<p>100% of identified buildings have conducted energy audits (<i>partial disbursement allowed</i>)</p>	<ul style="list-style-type: none"> <li>• Methodology developed and approved for follow-up on energy audit recommendations</li> <li>• Construction of model net zero building completed and government standards and design for zero-net buildings notified.</li> </ul>	
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ADB = Asian Development Bank, DLI = disbursement-linked indicator, EDP = Energy Department of Punjab, ICT = Information and Communication Technology, Khyber Pakhtunkhwa = Khyber Pakhtunkhwa province, MHP = micro-hydropower plant, MW = megawatts, PAP = Program Action Plan, PEDO = Pakhtunkhwa Energy Development Organization, PPMS = program performance monitoring system, RBL = results-based lending.

Sources: Asian Development Bank, Energy Department of Punjab, and Pakhtunkhwa Energy Development Organization.

**SCHEDULE 4****Execution of Program**Implementation Arrangements

1. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that the Program is implemented in accordance with the detailed arrangements set forth in the PID. Any subsequent change to the PID shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PID and this Loan Agreement, the provisions of this Loan Agreement shall prevail.

2. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that the amount of Eligible Expenditures under the Program for any Fiscal Year is equal to or exceeds the Loan proceeds withdrawn by the Borrower in the same Fiscal Year. Such Eligible Expenditures are part of the expenditures incurred under the Khyber Pakhtunkhwa Power Sector Program and the Punjab Power Sector Program, but they exclude any expenditures for (a) procurement of works, goods and services from persons or entities debarred or suspended by ADB; (b) procurement involving High-Value Contracts; (c) any activities which are classified as category A for environmental impact under the SPS; (d) only in relation to the Khyber Pakhtunkhwa Power Sector Program, any installation of micro-hydropower plants in Khyber Pakhtunkhwa which results in involuntary resettlement impacts under the SPS; and (e) any activities which are prohibited investment activities provided in Appendix 5 of the SPS.

DLI Compliance and Program Dialogue

3. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that all DLIs achieved under the Program continue to be complied with for the duration of the Khyber Pakhtunkhwa Power Sector Program and the Punjab Power Sector Program.

4. The Borrower shall keep ADB informed of, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to keep ADB informed of, discussions with other multilateral or bilateral aid agencies that may have implications for the implementation of the Khyber Pakhtunkhwa Power Sector Program or the Punjab Power Sector Program and shall provide ADB with an opportunity to comment on any resulting proposals. The Borrower shall give, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to give, due consideration to ADB's views before finalizing and implementing any such proposal.

Program Actions

5. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that all Program Actions, including those relating to institutional and regulatory matters, technical matters, financial management, procurement, anticorruption, monitoring and evaluation, gender, environmental and social safeguards, asset transfer, and private sector engagement, are implemented in an efficient manner and in accordance with the timelines prescribed in the Program Action Plan.

Procurement

6. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that each contract under the Program is awarded on the basis of the Program's procurement systems, having due regard for the principles of competition, economy and efficiency, transparency, and fairness and equal opportunity.

Environmental and Social Safeguards

7. (a) The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that no construction or rehabilitation works under the Program involve significant adverse environmental impacts that may be classified as category A under the SPS. Prior to commencing any construction or rehabilitation works under the Program, the Borrower shall conduct, or cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to conduct, a screening to ensure that any works that may be classified as category A for environment impacts within the meaning of SPS are excluded from the Program.

(b) The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that the preparation, design, construction, implementation, operation and decommissioning of all activities under the Program comply with: (i) all applicable laws, regulations and guidelines of the Borrower relating to environment, health and safety; (ii) the Environmental Safeguards; and (iii) all measures and requirements, including monitoring requirements, set forth in the Program Action Plan.

8. (a) The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa and PEDO to ensure, that, for the Khyber Pakhtunkhwa Component of the Program, no construction works for micro-hydropower plants in Khyber Pakhtunkhwa involve involuntary resettlement impacts under the SPS. Prior to commencing any such construction works, the Borrower shall conduct, or cause ED Khyber Pakhtunkhwa and PEDO to conduct, a screening to ensure that any such works that may involve involuntary resettlement impacts within the meaning of the SPS are excluded from the Khyber Pakhtunkhwa Component of the Program.

(b) Without prejudice to paragraph (a) immediately above, the Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that the preparation, design, construction, implementation, operation and decommissioning of all activities under the Program comply with: (a) all applicable laws and regulations of the Borrower relating to resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements, including monitoring requirements, set forth in the Program Action Plan. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that no land is acquired for the purposes of the Program under the emergency acquisition provisions of the Borrower's Land Acquisition Act (1894), as amended from time to time.

9. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that the preparation, design, construction, implementation, operation and decommissioning of all activities under the Program comply with: (a) all applicable laws and regulations of the Borrower relating to indigenous peoples; (b) the Indigenous Peoples

Safeguards; and (c) all measures and requirements, including monitoring requirements, set forth in the Program Action Plan.

Governance and Anticorruption

10. The Borrower shall ensure, and cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to ensure, that the Program complies with the Anticorruption Guidelines and that all appropriate and timely measures are taken to prevent, detect and respond to allegations of fraud, corruption or any other prohibited activities relating to the Program in accordance with the Anticorruption Guidelines.

11. The Borrower shall, and shall cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to, (a) promptly inform ADB of any allegations of fraud, corruption or any other prohibited activities relating to the Program; and (b) cooperate fully with any investigation by ADB on such allegations and extend all necessary assistance, including providing access to all relevant records, for satisfactory completion of such investigation.

12. Within 90 days of the Effective Date, the Borrower shall update, or cause ED Khyber Pakhtunkhwa, PEDO, EDP and CEP to update, its public website to (a) provide information on bidding procedures, bidders, contract awards and physical progress of the Khyber Pakhtunkhwa Component of the Program or the Punjab Component of the Program, as the case may be; (b) post the audited annual financial statements for such component of the Program, as such financial statements become available; and (c) disseminate other relevant information on the implementation of such component of the Program.