Clean Technology Fund
Loan Agreement

(Second Power Transmission Project)

between

UKRAINE

and

INTERNATIONAL BANK FOR RECONSTRUCTION 
AND DEVELOPMENT

acting as an implementing entity of the Clean Technology Fund

Dated February 10, 2015
CLEAN TECHNOLOGY FUND
LOAN AGREEMENT

Agreement dated February 10, 2015, between URKAIN ("Borrower") and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT acting not in its individual capacity but solely in its capacity as an implementing entity of the Clean Technology Fund ("CTF") ("World Bank").

WHEREAS: (A) The Borrower, having been satisfied as to the feasibility and priority of the Project described in Schedule 1 to this Agreement, has requested the World Bank to assist in the financing of Part 2.2 of the Project;

(B) by an agreement of even date herewith (the IBRD Loan Agreement), the World Bank, has agreed to make a loan (the IBRD Loan) to the Borrower in the amount of three hundred thirty million United States Dollars ($330,000,000) to assist in financing Parts 1, 2.1, 2.3, 2.4 and Part 3 of the Project on the terms and conditions set forth in the IBRD Loan Agreement;

WHEREAS the World Bank has agreed, on the basis, inter alia, of the foregoing, to extend the Loan to the Borrower upon the terms and conditions set forth in this Agreement;

The Borrower and the World Bank hereby agree as follows:

Article I
Standard Conditions; Definitions

1.01. The Standard Conditions (as defined in the Appendix to this Agreement) constitute an integral part of this Agreement.

1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the Standard Conditions or in the Appendix to this Agreement.

Article II
Loan

2.01. The World Bank agrees to lend to the Borrower, on the terms and conditions set forth or referred to in this Agreement, the amount of forty-eight million four hundred twenty-five thousand United States Dollars ($48,425,000) ("Loan"), to assist in financing Part 2.2 of the project described in Schedule 1 to this Agreement ("Project").

2.02. The Borrower may withdraw the proceeds of the Loan in accordance with Section IV of Schedule 2 to this Agreement.
2.03. The Loan is funded out of the resources made available to the World Bank as an implementing entity of the CTF. In accordance with Section 3.02 of the Standard Conditions (as defined in the Appendix to this Agreement), the World Bank’s payment obligations in connection with this Agreement are limited to the amount of funds made available to it from the CTF trust fund, and the Borrower’s right to withdraw the Loan proceeds is subject to the availability of such funds.

2.04. The Management Fee payable by the Borrower, pursuant to Section 4.01(a) of the Standard Conditions, shall be equal to forty-five one-hundredths of one percent (0.45%) of the Loan.

2.05. The Service Charge payable by the Borrower on the Withdrawn Loan Balance shall be equal to three-fourths of one percent (3/4 of 1%).

2.06. The Payment Dates are January 15 and July 15 in each year.

2.07. The principal amount of the Loan shall be repaid in accordance with the repayment schedule set forth in Schedule 3 to this Agreement.

2.08. The Payment Currency is USD.

**Article III**

**The Project**

3.01. The Borrower declares its commitment to the objectives of the Project. To this end, the Borrower shall cause Part 2.2 of the Project to be carried out by the Project Implementing Entity in accordance with the provisions of Article II of the Standard Conditions and the Project Agreement.

3.02. Without limitation upon the provisions of Section 3.01 of this Agreement, and except as the Borrower and the World Bank shall otherwise agree, the Borrower shall ensure that the Project is carried out in accordance with the provisions of Schedule 2 to this Agreement.
Article IV
Additional Remedies

4.01. The Additional Event of Suspension consists of the following, namely that the Project Implementing Entity’s Legislation has been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of the Project Implementing Entity to perform any of its obligations under the Project Agreement.

4.02. The Additional Event of Acceleration consists of the following, namely that the event specified in Section 4.01 of this Agreement occurs.

Article V
Effectiveness; Termination

5.01. The Additional Conditions of Effectiveness consist of the following:

(a) The Subsidiary Agreement has been executed on behalf of the Borrower (represented by MOF, MoECI, and NEURC) and the Project Implementing Entity.

(b) The MoECI POM has been finalized and adopted by MoECI, and the PIE POM has been finalized and adopted by the Project Implementing Entity, both in form and substance satisfactory to the World Bank.

(c) The IBRD Loan Agreement has been executed and all conditions precedent to its effectiveness and to the right of the Borrower to make withdrawals under it (other than the effectiveness of this Agreement) have been satisfied or waived.

(d) The Project Implementing Entity’s accounting system has been updated to enable fully automated project accounting and reporting.

5.02. The Additional Legal Matter consists of the following, namely that the Subsidiary Agreement has been duly authorized by the Borrower (represented by MOF, MoCEI, and NEURC) and the Project Implementing Entity and that the same agreement is legally binding upon the parties thereto in accordance with its terms.

5.03. The Effectiveness Deadline is the date one hundred twenty (120) days after the date of this Agreement.

5.04. Any amendment to this Agreement shall be executed by agreement of the parties hereto in accordance with the provisions of Section 10.02 of the Standard Conditions. Such amendment shall become effective as set forth in the amending agreement.
Article VI
Borrower's Representative; Addresses

6.01. The Borrower's Representative referred to in Section 10.02 of the Standard Conditions is its Minister of Finance.

6.02. The Borrower's Address referred to in Section 10.1 of the Standard Conditions is:

Ministry of Finance
12/2 Hrushevsky St.
Kyiv, 01008
Ukraine

Facsimile:
(380-44) 425-90-26
(380-44) 277-54-82

6.03. The World Bank's Address referred to in Section 10.1 of the Standard Conditions is:

International Bank for Reconstruction and Development
1818 H Stree , N.W.
Washington, D.C. 20433
United States of America

Cable address: INTBAFRA
Telex: 248423(MCI) or 64145(MCI)
Facsimile: 1-202-477-6391

Washington, D.C.
AGREED at Kiev, Ukraine, as of the day and year first above written.

UKRAINE

By

[Signature]

Authorized Representative

Name: Volodymyr Demchyskyn
Title: Minister of Energy and Coal Industry of Ukraine

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT
acting as an implementing entity of the
Clean Technology Fund

By

[Signature]

Authorized Representative

Name: Giurin Fau
Title: Director for Belorus,
Moldova and Ukraine
SCHEDULE 1
Project Description

The objectives of the Project are to improve the reliability of the Borrower’s power transmission system and to support the implementation of the wholesale electricity market in Ukraine.

The Project consists of the following parts:

Part 1: Rehabilitation of Transmission Substations

Replacement of outdated high voltage equipment, installation of gas-insulated switchgears, and replacement of auxiliary power equipment, protective layering and substation control and automation systems in selected high voltage transmission substations.

Part 2: Electricity Market Enhancement

Part 2.1. Installation and connection of reactive power compensation devices for selected high voltage transmission substations.

Part 2.2. Introduction of Smart Grid through purchase and installation of Smart Grid solutions including (a) modernization of the telecommunications network between renewable energy sources, key substations of transmission networks and system operator control centers; and (b) modernization of the regional and national system of load distribution and organization of control centers.

Part 2.3. Provision of support to the Balancing Market through purchase and installation of hardware and software for the proper functioning of the Balancing Market of electricity, ancillary services market and fulfillment of administrative settlement services, administration of commercial settlement as well as other services of the System Operator based on the Electricity Market Law of Ukraine.

Part 2.4. Support for institutional development of the Project Implementing Entity through (a) establishing a corporate-wide management information system in the Project Implementing Entity; (b) providing technical assistance to the Project Implementing Entity on procurement, financial management and project management; and (c) financing of audits and Training.

Part 3: Improving of Institutional Capacity of MoECI for Reform Implementation

Provision of institutional support for the implementation of energy sector reforms in line with commitments of Ukraine within the framework of membership in the Energy Community and the EU Association Agreement.
SCHEDULE 2
Project Execution

Section I. Implementation Arrangements

A. Institutional Arrangements

1. The Borrower shall:

(a) ensure that Part 2.2 of the Project is carried out by the Project Implementing Entity in accordance with the procedures set forth in the PIE POM, and shall ensure that the PIE POM is not amended, suspended, abrogated, or repealed and that no provision of the PIE POM is waived without prior approval of the World Bank.

(b) through PIE, maintain the PIU of the Project Implementing Entity, throughout the duration of the Project, in a form and with functions, staffing, (with qualifications and scope of responsibilities) and adequate resources, all satisfactory to the World Bank and as further set forth in the PIE POM;

(c) through PIE, ensure that the PIE of the Project Implementing Entity is responsible for implementing Part 2.2 of the Project, for providing the respective reports to the World Bank, and for monitoring and evaluation of the results of Part 2.2 of the Project.

B. Subsidiary Agreement

1. To facilitate the carrying out of the Project Implementing Entity’s Respective Part 2.2 of the Project, the Borrower, through MOF, shall make the proceeds of the Loan available to the Project Implementing Entity under the Subsidiary Agreement between the Borrower (represented by MOF, MoECI, and NEURC) and the Project Implementing Entity, under terms and conditions approved by the World Bank, which shall include the following:

(a) The principal amount of the Loan made available under the Subsidiary Agreement (“Subsidiary Loan”) shall be: (i) denominated and repayable in US Dollars; (ii) assessed a charge on the principal amount withdrawn and outstanding from time to time at the rate equal to the rate payable by the Borrower in accordance with Section 2.05 of this Agreement (as a service charge), plus a spread (margin) according to the decision by the Government of the Borrower; and a one-time commission which is subtracted from the amount of the Subsidiary Loan, at a rate equal to the rate used in Section 2.04 of this Agreement (as a management fee); and (iii) repayable over a period not exceeding 20 years from the date of the Subsidiary Agreement, inclusive of a grace period not exceeding 10 years.”
(b) The Project Implementing Entity shall carry out Part 2.2 of the Project in accordance with the PIE POM, and shall maintain the functioning of its PIU throughout the duration of the Project for this purpose, in a form and with functions, staffing (with qualifications and scope of responsibilities) and adequate resources, all satisfactory to the World Bank and as further set forth in the PIE POM. The Project Implementing Entity shall not amend, suspend, abrogate, repeal or waive any provision of the PIE POM without prior approval of the World Bank.

(c) The Project Implementing Entity shall comply with the financial covenants and all other provisions set forth in its respective Project Agreement and its respective Subsidiary Agreement.

2. The Borrower, through MOF, MoECI and NEURC, shall exercise its rights under the Subsidiary Agreement in such manner as to protect the interests of the Borrower and the World Bank and to accomplish the purposes of the Loan. Except as the World Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate or waive the Subsidiary Agreement or any of its provisions.

C. Anti-Corruption

The Borrower shall ensure that the Project is carried out in accordance with the provisions of the Anti-Corruption Guidelines.

D. Budgetary Arrangements

Unless the World Bank shall agree otherwise, the Borrower shall:

1. ensure that, starting from Fiscal Year 2015 and each year thereafter, the NEURC shall establish and maintain tariffs sufficient for the Project Implementing Entity to cover financial needs for its carrying out of operations in the framework of Part 2.2 of the Project, and debt service in a timely manner;

2. cause Energomarket to distribute funds due from Energomarket to the Project Implementing Entity in a timely manner;

3. ensure that the NEURC introduces by July 1, 2017 a tariff defining the payments due to the Project Implementing Entity for electricity transmission in conformity with the legislation adopted during the period of the established new power market model; and

4. enable the Project Implementing Entity to achieve and maintain selected financial performance indicators, as further set forth in the Project Agreement.

E. Safeguards

The Borrower, through MoECI, shall ensure that no works under the Project involve the involuntary taking of land resulting in relocation or loss of shelter, loss of
assets or access to assets, loss of income sources or means of livelihood, or involving the involuntary restriction of access to legally designated Parks and Protected areas.

Section II. Project Monitoring, Reporting and Evaluation

A. Project Reports; Completion Report

1. The Borrower, through MoECI, shall ensure implementation by the Project Implementing Entity of monitoring and evaluation of the progress of the Part 2.2 of the Project based on the results of which the Project Implementing Entity shall prepare and submit to the World Bank Project Reports on the implementation of Part 2.2 of the Project in accordance with the provisions of Section 2.06 of the Standard Conditions and on the basis of indicators acceptable to the World Bank. Each Project Report shall cover the period of one calendar semester, and shall be furnished to the World Bank not later than one month after the end of the period covered by such report.

2. The Borrower, through MoECI, shall ensure the preparation by the Project Implementing Entity of the Completion Report in respect of Part 2.2 of the Project in accordance with the provisions of Section 2.06 of the Standard Conditions. The Completion Report shall be furnished to the World Bank not later than six (6) months after the Closing Date.

B. Financial Management; Financial Reports; Audits

1. The Borrower, through MoECI, shall cause the Project Implementing Entity to maintain a financial management system for Part 2.2 of the Project, in accordance with the provisions of Section 2.07 of the Standard Conditions and Section II.B.1 of the Schedule to the Project Agreement.

2. Without limitation on the provisions of Part A of this Section, the Borrower, through MoECI, shall ensure that the Project Implementing Entity shall prepare and furnish to the World Bank, not later than forty-five (45) days after the end of each calendar quarter, interim unaudited financial reports for Part 2.2 of the Project covering the quarter, in accordance with the provisions of Section II.B.3 of the Schedule to the Project Agreement, in form and substance satisfactory to the World Bank.

3. The Borrower, through MoECI, shall ensure: (a) that the Project Implementing Entity shall have the Financial Statements corresponding to Part 2.2 of the Project, audited in accordance with the provisions of Section 2.07(b) of the Standard Conditions and Section II.B.2 of the Project Agreement; (b) that each such audit of the Financial Statements of the Project Implementing Entity shall cover the period of one fiscal year of the Project Implementing Entity; and (c) that the audited Financial Statements for each such period shall be furnished to the World Bank not later than six (6) months after the end of such period.
**Section III. Procurement**

A. General

1. **Goods, Works and Non-consulting Services.** All goods, works and non-consulting services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Section I of the Procurement Guidelines, and with the provisions of this Section.

2. **Consultants' Services.** All consultants’ services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Sections I and IV of the Consultant Guidelines and with the provisions of this Section.

3. **Definitions.** The capitalized terms used below in this Section to describe particular procurement methods or methods of review by the World Bank of particular contracts refer to the corresponding method described in Sections II and III of the Procurement Guidelines, or Sections II, III, IV and V of the Consultant Guidelines, as the case may be.

B. **Particular Methods of Procurement of Goods, Works and Non-consulting Services**

1. **International Competitive Bidding.** Except as otherwise provided in paragraph 2 below, goods, works and non-consulting services shall be procured under contracts awarded on the basis of International Competitive Bidding.

2. **Other Methods of Procurement of Goods, Works and Non-consulting Services.** The following methods, other than International Competitive Bidding, may be used for procurement of goods, works and non-consulting services for those contracts specified in the Procurement Plan: Shopping.

C. **Particular Methods of Procurement of Consultants' Services**

1. **Quality- and Cost-based Selection.** Except as otherwise provided in paragraph 2 below, consultants’ services shall be procured under contracts awarded on the basis of Quality and Cost-based Selection.

2. **Other Methods of Procurement of Consultants’ Services.** The following methods, other than Quality and Cost-based Selection, may be used for procurement of consultants’ services for those contracts which are specified in the Procurement Plan: (a) Least Cost Selection; (b) Selection based on Consultants' Qualifications; (c) Procedures for the Selection of Individual Consultants; and (d) Single-source procedures for the Selection of Individual Consultants.
D. Review by the World Bank of Procurement Decisions

1. The Procurement Plan shall set forth those contracts which shall be subject to the World Bank's Prior Review. All other contracts shall be subject to Post Review by the World Bank.

2. The Borrower shall, through MoECI, ensure that the Project Implementing Entity:

   (a) No later than December 31 of every year during the implementation of the Project, beginning on December 31, 2015, prepares and furnishes to the World Bank a procurement progress report (Procurement Progress Report), in form and substance acceptable to the World Bank, which shall include, *inter alia*: (i) a description of issues arising during the full procurement cycle under the Project, from design through planning, bidding, contract implementation and completion; (ii) a list of proposed measures and actions to be taken to resolve the issues identified under (i) above; and (iii) a proposed timeline for the implementation of the said measures and actions.

   (b) No later than January 31 of every year during the implementation of the Project, beginning on January 31, 2016, exchanges views with the World Bank on the results of the Procurement Progress Report completed for the Borrower's previous calendar year and thereafter implement such recommended measures, as agreed with the World Bank.

Section IV. Withdrawal of Loan Proceeds

A. General

1. The Borrower may withdraw the proceeds of the Loan in accordance with the provisions of Article III of the Standard Conditions, this Section and such additional instructions as the World Bank may specify by notice to the Borrower (including the "World Bank Disbursement Guidelines for Projects" dated May 2006, as revised from time to time by the World Bank and as made applicable to this Agreement pursuant to such instructions), to finance Eligible Expenditures as set forth in the table in paragraph 2 below.

2. The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Loan ("Category"), the allocations of the amounts of the Loan to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category:
<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Loan Allocated (expressed in USD)</th>
<th>Percentage of Expenditures to be Financed (inclusive of Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Goods, works, non-consulting services, and consultants’ services, Training for Part 2.2 of the Project</td>
<td>48,207,087.5</td>
<td>100%</td>
</tr>
<tr>
<td>(2) Management Fee</td>
<td>217,912.5</td>
<td>Amount payable in accordance with Section 2.04 of this Agreement and Section 4.01(a) of the Standard Conditions</td>
</tr>
<tr>
<td>TOTAL AMOUNT</td>
<td>48,425,000</td>
<td></td>
</tr>
</tbody>
</table>

**B. Withdrawal Conditions; Withdrawal Period**

1. Notwithstanding the provisions of Part A of this Section no withdrawal shall be made for payments made prior to the date of this Agreement.

2. The Closing Date is June 30, 2020.
### SCHEDULE 3
Repayment Schedule

<table>
<thead>
<tr>
<th>Date Payment Due</th>
<th>Principal Amount of the Loan repayable (expressed as a percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On each January 15 and July 15 commencing January 15, 2025, to and including July 15, 2034:</td>
<td>5%</td>
</tr>
</tbody>
</table>
APPENDIX

Section I. Definitions


2. "Balancing Market" means a market organized by the system operator for the purpose of balancing volumes of production (output) and import of electricity, consumption and export of electricity, dealing with system restrictions in the joint Ukrainian energy system as well as financing regulation of electric energy imbalances.

3. “Category” means a category set forth in the table in Section IV of Schedule 2 to this Agreement.


7. “Energy Community” means the community of member-nations cooperating on matters of the energy market established pursuant to Treaty Establishing the Energy Community, signed on October 25, 2005, and acceded to by the Borrower pursuant to the Protocol concerning the Accession of Ukraine to the Treaty Establishing the Energy Community, dated September 24, 2010.

8. “Environmental Management Plan” or “EMP” means the Borrower’s environmental management plan dated June 23, 2014 for Parts 1 and 2.1 of the Project acceptable to the World Bank, and giving details of specific actions and setting forth the mitigating, monitoring and institutional measures to be taken during the implementation and operation of the civil works to offset or reduce adverse environmental impacts to levels acceptable to the World Bank, including the budget and cost estimates, and sources of funding, along with the institutional and procedural measures needed to implement such actions, measures and policies.

10. "Fiscal Year" means the Borrower’s fiscal year, the period starting from January 1 to December 31.

11. "IBRD Loan Agreement" means the agreement of even date herewith between the Borrower and the World Bank, to assist in financing Parts 1, 2.1, 2.3, 2.4 and Part 3 of the Project.

12. "MOF" means the Borrower’s Ministry of Finance, or its legal successor.


14. "MOE" means the Borrower’s Ministry of Economic Development and Trade, or its legal successor.

15. "National Energy and Utilities Regulatory Commission" or "NEURC" means the Borrower’s authority for state regulation of power and communal services, established pursuant to the Decree of the President of Ukraine No. 694/2014 dated August 27, 2014, and with its statutes approved by the Decree of the President of Ukraine No. 715/2014 dated September 10, 2014.


17. "PIE POM" or "PIE Project Operations Manual" means the operational manual adopted by the Project Implementing Entity and referred to in Section 1.B.1(b) of Schedule 2 to this Agreement, setting forth the operational requirements, criteria, institutional arrangements and operational procedures for the implementation of the Project, including, inter alia, procurement, financial management, disbursement, accounting, audit, environmental and social safeguards requirements, monitoring and evaluation arrangements, as amended from time to time with the agreement of the World Bank.


19. "Procurement Plan" means the procurement plan provided by the Borrower for the Project, dated November 11, 2014, and referred to in paragraph 1.18 of the Procurement Guidelines and paragraph 1.25 of the Consultant Guidelines, as the same shall be updated from time to time in accordance with the provisions of said paragraphs.

21. “Project Implementation Unit of the Project Implementing Entity” or “PIU of the Project Implementing Entity” means the Project implementation unit established by the Project Implementing Entity pursuant to the Order No. 161, dated July 16, 2014; or its legal successor.


23. “Smart Grid” means an electricity network based on digital technology that is used to supply electricity to consumers via two-way digital communication, allowing for monitoring, analysis, control and communication within the supply chain to help improve efficiency, reduce the energy consumption and cost, and maximize the transparency and reliability of the energy supply chain.


25. “Subsidiary Agreement” means the agreement referred to in Section I.B of Schedule 2 to this Agreement pursuant to which the Borrower, through MOF, shall make the proceeds of the Loan available to the Project Implementing Entity to facilitate implementation of Part 2.2 of the Project.

26. “Training” means Project-related training, and includes Project-related study tours, training courses, seminars, workshops and other training activities, not included under service providers’ contracts, including costs of training materials, space and equipment, rental, reasonable and necessary local and international travel by participants in training activities, reasonable lodging and accommodation, subsistence and local and international per diem of trainees and trainers, registration, tuition and facilitators’ fees, translation and interpretation, and other training-related miscellaneous costs, all based on budgets acceptable to the World Bank.