



LOAN NUMBER 9703-CN

Loan Agreement

**(Shaanxi Energy Transition and Innovation Demonstration in the Heating Sector
Project)**

between

PEOPLE'S REPUBLIC OF CHINA

and

**INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT**



LOAN AGREEMENT

AGREEMENT dated as of the Signature Date between PEOPLE'S REPUBLIC OF CHINA ("Borrower") and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT ("Bank"). The Borrower and the Bank hereby agree as follows:

ARTICLE I — GENERAL CONDITIONS; DEFINITIONS

- 1.01. The General Conditions (as defined in the Appendix to this Agreement) apply to and form 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 General Conditions or in the Appendix to this Agreement.

ARTICLE II — LOAN

- 2.01. The Bank agrees to lend to the Borrower the amount of two hundred seventy-six million five hundred thousand Euros (EUR 276,500,000), as such amount may be converted from time to time through a Currency Conversion ("Loan"), to assist in financing 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 III of Schedule 2 to this Agreement.
- 2.03. The Front-end Fee is one quarter of one percent (0.25%) of the Loan amount.
- 2.04. The Commitment Charge is one quarter of one percent (0.25%) per annum on the Unwithdrawn Loan Balance.
- 2.05. The interest rate is the Reference Rate plus the Variable Spread or such rate as may apply following a Conversion; subject to Section 3.02(e) of the General Conditions.
- 2.06. The Payment Dates are March 15 and September 15 in each year.
- 2.07. The principal amount of the Loan shall be repaid in accordance with Schedule 3 to this Agreement.

ARTICLE III — PROJECT

- 3.01. The Borrower declares its commitment to the objective of the Project. To this end, the Borrower shall cause the Project to be carried out by the Project Implementing Entity in accordance with the provisions of Article V of the General Conditions and the Project Agreement.

ARTICLE IV — EFFECTIVENESS; TERMINATION

- 4.01. The Additional Condition of Effectiveness is that the Project Implementing Entity has adopted the Project Operations Manual, in form and substance acceptable to the Bank.
- 4.02. The Effectiveness Deadline is the date ninety (90) days after the Signature Date.

ARTICLE V — REPRESENTATIVE; ADDRESSES

- 5.01. The Borrower's Representative is its Minister, or a Vice Minister, of Finance.
- 5.02. For purposes of Section 10.01 of the General Conditions:

- (a) the Borrower's address is:

Ministry of Finance
Sanlihe
Xicheng District
Beijing 100820
People's Republic of China; and
- (b) the Borrower's Electronic Address is:

Facsimile:
(86-10) 6855-2077

- 5.03. For purposes of Section 10.01 of the General Conditions:

- (a) the Bank's address is:

International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D.C. 20433
United States of America; and
- (b) the Bank's Electronic Address is:

Facsimile:
1-202-477-6391

AGREED as of the Signature Date.

PEOPLE'S REPUBLIC OF CHINA

By



Authorized Representative
Zhang Bo
Name: _____
Title: Deputy Director General
Date: 16-Dec-2024

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

By



Authorized Representative
Mara K. Warwick
Name: _____
Title: Country Director.
Date: 11-Dec-2024

SCHEDULE 1

Project Description

The objective of the Project is to increase heat supply capacity from renewable energy and low-carbon energy sources and pilot heating pricing reform in selected areas of Shaanxi Province.

The Project consists of the following parts:

Part 1: Investment in Renewable Heating Infrastructure

- 1.1 *Xi'an Xincheng District Geothermal Heating.* Developing a geothermal heating network in selected areas of Xincheng District by investments in, *inter alia*, geothermal heating wells, heating stations with electric heat pumps and a pipeline network.
- 1.2 *Yulin Kechuang Science and Innovation City Clean Heating.* Developing an innovative distributed heating systems in selected areas of Kechuang Science and Innovation City by investments in, *inter alia*, geothermal wells, electric boilers, thermal storage water tanks, associated valves and pipelines for heating network, hydrogen fuel cell and hydrogen storage equipment, and electric heat pumps.

Part 2: Investment for Pricing Reform Pilot

- 2.1 *Xi'an Xincheng District Reform Pilot.* Developing infrastructure for the implementation of consumption-based billing for residential and public buildings in selected areas of Xincheng District by providing measuring and controlling devices.
- 2.2 *Yulin Kechuang Science and Innovation City Reform Pilot.* Developing infrastructure for the implementation of consumption-based billing for residential and public buildings in selected areas of Kechuang Science and Innovation City by providing measuring and controlling devices.
- 2.3 *Yulin City District Heating Reform Pilot.* Developing infrastructure for the implementation of consumption-based billing for the existing heating network in Yulin City by providing measuring and controlling devices and supporting the expansion of a digital heating operation management platform for automated heat flow and temperature control.

Part 3: Technical Assistance for Pricing Reform Pilot and Capacity Building

- 3.1 *Design and Implementation Support of Pricing Reform Pilot.* Providing technical and analytical support for developing and refining the heating pricing and billing reform and conducting stakeholder and beneficiary consultations.
- 3.2 *Capacity Building and Project Management.* Supporting: (i) capacity building and training on heating sector reform and decarbonization for key stakeholders, including policy makers and heating companies; and (ii) Project management, including coordination, monitoring and evaluation.

SCHEDULE 2

Project Execution

Section I. Implementation Arrangements

A. Financing Arrangements.

1. For the purposes of carrying out of the Project, the Borrower shall make the proceeds of the Loan available to the Project Implementing Entity, under terms and conditions acceptable to the Bank, including the following principal terms:
 - (a) the principal amount shall be made available in Euro, or any other Currency as the Loan may be converted from time to time through a Currency Conversion of the value of the currency or currencies so withdrawn (such principal amount determined on the date, or respective dates, of withdrawal from the Loan Account).
 - (b) the principal amount so made available shall be recovered over a period of thirty (30) years, inclusive of a grace period of six (6) years.
 - (c) interest shall be charged on such principal amount withdrawn and outstanding from time to time at a rate equal to the rate of interest applicable from time to time to the Loan pursuant to the provisions of Section 2.05 of this Agreement.
 - (d) a Commitment Charge shall be charged equal to one quarter of one percent (0.25%) per annum on the Unwithdrawn Loan Balance.

2. The Borrower shall cause the Project Implementing Entity to: (a) manage, operate, monitor, transfer, and reconcile the proceeds made available pursuant to paragraph 1 (one) above in accordance with arrangements and procedures acceptable to the Bank; (b) take all required actions, including the provision of timely consents and approvals as may be necessary, to facilitate the utilization of the proceeds and the implementation of the Project and, to enable the Project Implementing Entity to comply with its undertakings under the Project Agreement; and (c) maintain all relevant records and documents related to the Loan and the Project, and provide promptly such documents and records, including all other information related to the Loan and the Project, as may be requested by the Borrower or the Bank from time to time.

B. Environmental and Social Standards.

The Borrower shall take, and shall cause the Project Implementing Entity to take, all measures necessary to comply with, or all measures necessary to enable the Project Implementing Entity to comply with the provisions of Section I.C of the Schedule to the Project Agreement.

Section II. Project Monitoring Reporting and Evaluation

The Borrower shall cause the Project Implementing Entity to furnish to the Bank each Project Report not later than sixty (60) days after the end of each calendar semester, covering the calendar semester.

Section III. Withdrawal of Loan Proceeds

A. General.

Without limitation upon the provisions of Article II of the General Conditions and in accordance with the Disbursement and Financial Information Letter, the Borrower may withdraw the proceeds of the Loan to finance Eligible Expenditures; in the amount allocated and, if applicable, up to the percentage set forth against each Category of the following table:

Category	Amount of the Loan Allocated (expressed in Euro)	Percentage of Expenditures to be financed (inclusive exclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, Training, and Incremental Operating Cost for the Project	276,500,000	100%
TOTAL AMOUNT	276,500,000	

B. Withdrawal Conditions; Withdrawal Period.

1. Notwithstanding the provisions of Part A above, no withdrawal shall be made for payments made prior to the Signature Date, except that withdrawals up to an aggregate amount not to exceed Euro 50 million may be made for payments made prior to this date but on or after April 11, 2024, for Eligible Expenditures under Category (1).
2. The Closing Date is June 30, 2029.

SCHEDULE 3

Commitment-Linked Amortization Repayment Schedule

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”).

Level Principal Repayments

Principal Payment Date	Installment Share
On each March 15 and September 15 Beginning September 15, 2030 through September 15, 2053	2.08%
On March 15, 2054	2.24%

APPENDIX

Section I. Definitions

1. “Annual Work Plan” means each of the rolling plans for the Project to be prepared or updated by the Project Implementing Entity, and agreed with the Bank, on an annual basis during the implementation of the Project, as provided for in Section I.B.1 of the Schedule to the Project Agreement.
2. “Anti-Corruption Guidelines” means, for purposes of paragraph 6 of the Appendix to the General Conditions, the “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006, and revised in January 2011 and as of July 1, 2016.
3. “Category” means a category set forth in the table in Section III.A of Schedule 2 to this Agreement.
4. “Department of Housing and Urban-Rural Development” or “DOHURD” means the Department of Housing and Urban-Rural Development of Shaanxi Province, and any successor thereto.
5. “EAP” means East Asia and Pacific.
6. “Environmental and Social Commitment Plan” or “ESCP” means the environmental and social commitment plan for the Project, dated June 6, 2024, as the same may be amended from time to time in accordance with the provisions thereof, which sets out the material measures and actions that the Borrower shall carry out or cause to be carried out to address the potential environmental and social risks and impacts of the Project, including the timeframes of the actions and measures, institutional, staffing, training, monitoring and reporting arrangements, and any environmental and social instruments to be prepared thereunder.
7. “Environmental and Social Standards” or “ESSs” means, collectively: (i) “Environmental and Social Standard 1: Assessment and Management of Environmental and Social Risks and Impacts”; (ii) “Environmental and Social Standard 2: Labor and Working Conditions”; (iii) “Environmental and Social Standard 3: Resource Efficiency and Pollution Prevention and Management”; (iv) “Environmental and Social Standard 4: Community Health and Safety”; (v) “Environmental and Social Standard 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement”; (vi) “Environmental and Social Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources”; (vii) “Environmental and Social Standard 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities”; (viii) “Environmental and Social Standard 8: Cultural Heritage”; (ix) “Environmental and Social Standard 9: Financial

Intermediaries”; and (x) “Environmental and Social Standard 10: Stakeholder Engagement and Information Disclosure”; effective on October 1, 2018, as published by the Bank.

8. “General Conditions” means the “International Bank for Reconstruction and Development General Conditions for IBRD Financing, Investment Project Financing”, dated December 14, 2018 (Last revised on July 15, 2023).
9. “Incremental Operating Costs” means the reasonable costs incurred by the Project Implementing Entity, including the Project Companies, for purposes of Project management and implementation based on the Annual Work Plans approved in advance by the Bank, on account of office supplies, consumables and rent, utilities, bank charges, communications, mass media and printing services, interpretation and translation services, vehicle rental, operation, maintenance, and insurance, building and equipment maintenance, local transportation, domestic and international travel, lodging, and subsistence allowances, and salaries of contractual and temporary staff, but excluding salaries and any salary supplements of members of the Borrower’s or the Project Implementing Entity’s civil service.
10. “Kechuang Science and Innovation City” means the urban area of the same name in Yulin District.
11. “Mid-term Review” means the joint review of the Project to be carried out in accordance with Section II.2 of the Schedule to the Project Agreement.
12. “On-lending Agreements” means, collectively, each of the agreements referred to in Section I.A.2 of the Schedule to the Project Agreement, to be entered into between Shaanxi Province, and the respective Project Company, acceptable to the Bank, in accordance with the terms and conditions set forth in the Annex to the Schedule to the Project Agreement.
13. “Procurement Regulations” means, for purposes of paragraph 85 of the Appendix to the General Conditions, the “World Bank Procurement Regulations for IPF Borrowers”, dated September 2023.
14. “Project Companies” means, collectively, Xi’an Xinye Industrial Co., Ltd., Yulin Heating Company, Yulin Kechuang Youneng Science and Technology Company, and such other company as may be agreed between the Bank and the Project Implementing Entity.
15. “Project Implementing Entity” means Shaanxi Province.

16. “Project Implementing Units” means the units established within each of the Project Companies, and to be maintained in accordance with the provisions of Section I.A.1(c) of the Schedule to the Project Agreement, or any successor thereto.
17. “Project Leading Group” means the leading group to be established by the Project Implementing Entity, and to be maintained in accordance with the provisions of Section I.A.1(a) of the Schedule to the Project Agreement between the Bank and Shaanxi Province, or any successor thereto.
18. “Project Management Office” means the management office established by the Project Implementing Entity within DOHURD, and to be maintained in accordance with the provisions of Section I.A.1(b) of the Schedule to the Project Agreement, or any successor thereto.
19. “Project Operations Manual” means the operations manual prepared and adopted by the Project Implementing Entity for the Project, acceptable to the Bank, describing, among other things: (a) the Project objective, Project activities and arrangements, acceptable to the Bank, flow of funds of the proceeds of the Loan, and agreed procedures in, *inter alia*, procurement, financial management and disbursement; (b) the institutional arrangements for the implementation of the Project, and the roles and responsibilities of the entities involved in Project implementation; (c) steps and procedures for Project implementation; (d) monitoring and evaluation, reporting and information disclosure arrangements, and the indicators and targets for purposes of monitoring and evaluation of the progress of the Project; (e) guidelines for the preparation and implementation of the Annual Work Plans; and (f) detailed steps and procedures, verification, financial management and disbursement arrangements for Project implementation.
20. “Shaanxi Province” means the Borrower’s province of the same name represented by its people’s government, or any successor thereto.
21. “Signature Date” means the later of the two dates on which the Borrower and the Bank signed this Agreement and such definition applies to all references to “the date of the Loan Agreement” in the General Conditions.
22. “Training” means the costs of training activities under the Project, based on the Annual Work Plans, and attributable to seminars, workshops, and domestic and overseas training and study tours, along with travel and subsistence allowances for training participants, services of trainers, rental of training facilities, preparation and reproduction of training materials, and other activities directly related to course preparation and implementation.
23. “Xi’an Xinye Industrial Co., Ltd.” means a company of the same name, established and operating pursuant the laws of the Borrower and said company’s business

registration No. 91610102MACM0THP0R dated June 28, 2023 (as such registration may be duly renewed from time to time), or any successor thereto acceptable to the Bank.

24. “Xincheng District” means Shaanxi Province Xi’an Municipality’s district of the same name, or any successor thereto.
25. “Yulin City” means Shaanxi Province’s city of the same name, or any successor thereto.
26. “Yulin Heating Company” means a company of the same name, established and operating pursuant the laws of the Borrower and said company’s business registration No. 91610800MA70DD196U dated April 19, 2021 (as such registration may be duly renewed from time to time), or any successor thereto acceptable to the Bank.
27. “Yulin Kechuang Youneng Science and Technology Company” means a company of the same name, established and operating pursuant the laws of the Borrower and said company’s business registration No. 91610800MA70HABC87 dated October 26, 2023 (as such registration may be duly renewed from time to time), or any successor thereto acceptable to the Bank.

Section II. Modifications to the General Conditions

The General Conditions are hereby modified as follows:

1. Section 3.01 (*Front-end Fee; Commitment Charge, Exposure Surcharge*) is modified to read as follows:

“Section 3.01. *Front-end Fee; Commitment Charge*

(a) The Borrower shall pay the Bank a Front-end Fee on the Loan amount at the rate specified in the Loan Agreement. Except as otherwise provided in Section 2.07 (b), the Borrower shall pay the Front-end Fee not later than sixty (60) days after the Effective Date.

(b) The Borrower shall pay the Bank a Commitment Charge on the Unwithdrawn Loan Balance at the rate specified in the Loan Agreement. The Commitment Charge shall accrue from the date of the Loan Agreement or the date which falls on the fourth anniversary of the date of approval of the Loan by the Bank, whichever is later, to the respective dates on which amounts are withdrawn by the Borrower from the Loan Account or cancelled. Except as otherwise provided in Section 2.07 (c), the Borrower shall pay the Commitment Charge semi-annually in arrears on each Payment Date.”

2. Section 3.04 (*Prepayment*) is modified to read as follows:

“Section 3.04. *Prepayment*

(a) After giving not less than forty-five (45) days’ notice to the Bank, the Borrower may repay the Bank the following amounts in advance of maturity, as of a date acceptable to the Bank (provided that the Borrower has paid all Loan Payments due as at such date): (i) the entire Withdrawn Loan Balance as at such date; or (ii) the entire principal amount of any one or more maturities of the Loan. Any partial prepayment of the Withdrawn Loan Balance shall be applied in the manner specified by the Borrower, or in the absence of any specification by the Borrower, in the following manner: (A) if the Loan Agreement provides for the separate amortization of specified Disbursed Amounts of the principal of the Loan the prepayment shall be applied in the inverse order of such Disbursed Amounts, with the Disbursed Amount which has been withdrawn last being repaid first and with the latest maturity of said Disbursed Amount being repaid first; and (B) in all other cases, the prepayment shall be applied in the inverse order of the Loan maturities, with the latest maturity being repaid first.

(b) If, in respect of any amount of the Loan to be prepaid, a Conversion has been effected and the Conversion Period has not terminated at the time of prepayment, the provisions of Section 4.06 shall apply.”

3. The following definitions are inserted in the Appendix in alphabetical order as paragraphs 75 and 81, and the remaining definitions and paragraphs (as the case may be) renumbered accordingly:

“75. “Loan Payment” means any amount payable by the Loan Parties to the Bank pursuant to the Legal Agreements, including (but not limited to) any amount of the Withdrawn Loan Balance, interest, the front-end Fee, the Commitment Charge, interest at the Default Interest Rate (if any), any surcharge, any transaction fee for a Conversion or early termination of a Conversion, any premium payable upon the establishment of an Interest Rate Cap or Interest Rate Collar, and any Unwinding Amount payable by the Borrower.”

“81. “Payment Date” means each date specified in the Loan Agreement occurring on or after the date of the Loan Agreement on which interest, Commitment Charge and other Loan charges and fees (other than the Front-end Fee) are payable, as applicable.”

4. Definitions in paragraphs 4 (Allocated Excess Exposure Amount); 53 (Exposure Surcharge); 99 (Standard Exposure Limit) and 105 (Total Exposure) of the Appendix are deleted in their entirety and the subsequent paragraphs are renumbered accordingly.