



## Project Preparatory Technical Assistance

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Project Number: 50096  
July 2016

Proposed Loan for People's Republic of China:  
Green Financing Platform for Accelerated Air Quality  
Improvement in the Greater Beijing-Tianjin-Hebei  
Region

Asian Development Bank

## PROJECT PREPARATORY TECHNICAL ASSISTANCE

### A. Justification

1. The proposed project will establish a dedicated green financing platform in the greater Beijing-Tianjin-Hebei (BTH) region to leverage financing in a sustainable manner to demonstrate and scale-up investments in different economic sectors that arrest environment degradation, contribute to climate change mitigation and sustainable economic development through financial innovation.<sup>1</sup> The proposed green financing platform will introduce innovative financial instruments recommended in the recently issued Green Financing Guidelines by China Banking Regulatory Commission (CBRC) and National Development and Reform Commission and will contribute to deepening financial markets in the People's Republic of China (PRC) and mobilizing domestic savings to meet the investment requirements of green investments. The proposed project will deploy effective finance on green and low emission development through (i) debt financing with limited recourse to fixed asset collateral, (ii) guarantee support to low-carbon development, energy saving, and environmental improvement projects for easier access to commercial bank financing, and (iii) mezzanine financing in the form of subordinate debt<sup>2</sup> or preference share investments in promising small and medium-sized enterprises (SME), etc.

### B. Major Outputs and Activities

2. A project preparatory technical assistance (PPTA) is required to establish the institutional, legal, and financial arrangements for the proposed financing platform. The PPTA will be implemented in two phases. The first phase will be conducted by a team of individual experts to work on the project design and due diligence of the financial intermediation loan (FIL). This includes (i) due diligence and capacity assessment of the management team of the proposed financing platform, (ii) defining roles and responsibilities of partner financial institutions, (iii) structuring incentive frameworks for different stakeholders and partners (iv) establishing financial managements and fiduciary control mechanisms, (v) preparing legal and contractual arrangement between different financial partner institutions, and (vi) establishing the environment and social management system (ESMS). In addition, the technical, financial, and environmental due diligence on the first batch of subprojects need to be undertaken and the eligibility and selection criteria of subsequent batches of subprojects need to be prepared.

3. The second phase will be implemented by another team of experts to prepare the subsequent projects and conduct due diligence assessment on financial, economic, environment, land acquisition and resettlement, social and gender development, governance, and procurement. The major outputs and activities of the first phase are summarized in Table A3.1.

### C. Cost Estimate and Proposed Financing Arrangement

4. The TA is estimated to cost \$500,000 equivalent, which will be financed on a grant basis by Asian Development Bank's (ADB's) Technical Assistance Special Fund (TASF-other sources). The Government has been advised that approval of the PPTA does not commit ADB to finance the ensuing project. The detailed cost estimate is presented in Table A3.2.

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<sup>1</sup> Greater BTH region refers to Beijing and Tianjin municipalities; Hebei, Henan, Shandong, Shanxi and Liaoning provinces; and the Inner Mongolia autonomous region.

<sup>2</sup> In the event of cash flow constraints, subordinated debt ranks below commercial bank loans in both repayment and liquidation. Usually subordinated debt does not take security and levies a higher interest rate. The preference shares have a fixed dividend rate and buyback requirement after a certain time.

**Table A3.1: Summary of Major Outputs and Activities**

Major Activities	Expected Commencement Date	Major Outputs	Expected Completion Date
<b>PPTA Phase 1</b>			
Project Scope and Technical Design			
<ul style="list-style-type: none"> <li>- Gather relevant data and information</li> <li>- Market and technical assessment for green financing platform</li> <li>- Assess sector and project risks</li> <li>- Update sector assessment</li> <li>- Technical appraisal of identified sample subprojects</li> </ul>	- July 2016	<ul style="list-style-type: none"> <li>- Sector assessment report</li> <li>- Risk assessment report</li> <li>- Technical due diligence report for subprojects</li> </ul>	- September 2016
Financial and Economic Analyses			
<ul style="list-style-type: none"> <li>- Development of financing structure and implementation arrangement</li> <li>- Financial management due diligence of the financing partners</li> <li>- Conduct economic and financial analyses with sensitivity analysis on sample subprojects</li> <li>- Financial due diligence of subprojects</li> <li>- Assess procurement capacity of selected subborrowers</li> <li>- Assess corporate management structure of selected subborrowers</li> <li>- Prepare project financing plan including on-lending schemes</li> <li>- Assess fund flow, disbursement mechanism and funding arrangements</li> <li>- Risk bearing capacity of I&amp;G</li> </ul>	- July 2016	<ul style="list-style-type: none"> <li>- Economic and financial analysis report</li> <li>- Fund flow analysis report</li> <li>- Financial management assessment report</li> <li>- Procurement capacity assessment report</li> </ul>	- September 2016
Safeguard			
<ul style="list-style-type: none"> <li>- Assess applicable laws, regulations, rules and procedures for managing and mitigating the environmental and social impact of the green financing platform</li> <li>- Prepare an ESMS</li> <li>- Develop the grievance redress mechanism</li> <li>- Conduct poverty, social and gender analysis</li> <li>- Conduct social safeguards due diligence and screening of candidate subprojects</li> <li>- Conduct environmental due diligence of sample subprojects</li> </ul>	- July 2016	<ul style="list-style-type: none"> <li>- Environmental and social management system</li> <li>- Summary poverty reduction and social strategy</li> <li>- Social safeguard due diligence report</li> <li>- Subproject EIA/ IEE/ Environment due diligence report</li> </ul>	- September 2016
Capacity Building			
<ul style="list-style-type: none"> <li>- Give ADB's safeguards policy training</li> <li>- Organized ADB's disbursement and procurement training</li> </ul>	- July 2016	<ul style="list-style-type: none"> <li>- Training manual and training reports</li> </ul>	- December 2016
<b>PPTA Phase 2</b>			
<ul style="list-style-type: none"> <li>- Conduct due diligence on subsequent subprojects</li> <li>- Financial</li> <li>- Economic</li> <li>- Environment</li> <li>- Social safeguards</li> <li>- Social analysis</li> <li>- Governance</li> <li>- Procurement</li> </ul>	- September 2016	<ul style="list-style-type: none"> <li>- Due diligence reports</li> </ul>	- August 2017

ADB = Asian Development Bank, ESMS = environment and social management system, I&G = China National Investment & Guaranty Corporation, PPTA = project preparatory technical assistance.

Source: Asian Development Bank

**Table A3.2: Cost Estimates and Financing Plan**  
(\$'000)

Item	Total Cost
<b>A. Asian Development Bank Financing<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (10 person-months)	250.0
ii. National consultants (20 person-months)	120.0
b. International and local travel	50.0
2. Miscellaneous administration and support costs <sup>b</sup>	10.0
3. Workshops, training, seminars, and conferences <sup>c</sup>	30.0
4. Contingencies	40.0
<b>Total</b>	<b>500.0</b>

<sup>a</sup> Proposed for financing by Asian Development Bank's Technical Assistance funding program (TA Special Fund-other sources).

<sup>b</sup> Includes translation and interpretation costs.

<sup>c</sup> Workshops, training, seminars, and conferences. These expenses will be incurred by the implementing agency and they will be reimbursed for actual cost incurred. The prior approval of ADB is required before incurring the expense. Source: Asian Development Bank estimates.

#### **D. Consulting Services**

5. The PPTA will have two consulting service packages: (i) a team of individual consultants for project design and due diligence for the FIL, and (ii) a team of individual consultants to prepare the subsequent loans in 2017. The total inputs of the project design and due diligence for the FIL will be two international consultants. Given the innovative nature of the project and complex legal and financial structuring work required, it is required to recruit highly qualified and specialized consultants with experience in structured finance, commercial banking and fund management regulations and practices in the PRC, as well as technical experts with knowledge and experience relevant to the initial batch of subprojects to be financed. Hence, the consultants with specific and relevant experience will be recruited as individual consultants in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time). Lump sum payments, output based contracts will be considered under the TA when applicable.

**Table A3.3: Summary of Consulting Services Requirement**

International Name of Positions	Person- months	National Name of Positions	Person- months
<b>First Phase</b>			
Technical Expert	3	Technical Expert	3
Environment Expert	2	Environment Expert	3
Financial Management expert	2	Social Expert	2
		Finance Expert	3
		Procurement Expert/Coordinator	2
International Name of Positions	Person- months	National Name of Positions	Person- months
<b>Second Phase</b>			
Technical expert	1	Technical Expert	2
Environment expert	1	Environment Expert	2
Financial Management expert	1	Social Expert	1
		Financial Expert	2
<b>Subtotal</b>	<b>10</b>	<b>Subtotal</b>	<b>20</b>

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Source: Asian Development Bank staff estimates.

6. The outline terms of references for the first phase PPTA consultants are described in paras 7 to 12.

7. **Technical Experts** (3 person-months of international and 3 person-months of national consultants). The consultant must have (i) at least a master's degree in engineering; (ii) a minimum of 10 years of experience in structuring energy efficiency and renewable energy projects; (iii) good written and oral English; and (iv) experience in international cooperation and management. The tasks to be undertaken by the expert include:

- (i) Conduct a market assessment on total low-carbon and green market size, investment requirement, barriers to mobilizing these investments, capacity constraints, and a roadmap for addressing these barriers.
- (ii) Undertake a review of the status of financing green and low-carbon projects in the PRC, and a review of the green and low-carbon projects financed by ADB and the multilateral development banks and how the effectiveness and coverage of these projects can be improved upon.
- (iii) Review the institutional and management structure for proposed project from the point of view of effectiveness in achieving the desired outcomes, decision making and approval authorities for new investments and risk management and risk sharing. Make recommendations to improve the proposed institutional structure of the proposed project.
- (iv) Prepare subproject selection criteria to be adopted for different types of financing products to be offered by the proposed project.
- (v) Prepare methodologies for monitoring and verification of energy efficiency gains and energy consumption savings achieved as a result of the investment supported by ADB.
- (vi) Appraise candidate projects with regards to the technical feasibility, energy saving potential, avoided carbon dioxide and pollutants, cost estimates and implementation arrangements and implementation schedule of the first batch of subprojects to be appraised before the loan approval.
- (vii) Prepare technical appraisal manual to be used in undertaking feasibility studies and appraising subprojects.
- (viii) Identify the capacity building requirements. The capacity building will cover identifying energy efficiency/renewable energy projects; undertaking feasibility studies on technical designs of those projects; undertaking technical and financial appraisal of those projects; structuring performance-based energy saving contracts; and undertaking energy audits, monitoring, measurement and verification mechanisms for energy savings achieved.

8. **Financial Management Experts.** (2 person-months, international and 3 person-months, national). The consultant must have (i) bachelor's degree in finance; (ii) a minimum of 10 years of experience in financial analysis; (iii) abundant knowledge about the PRC's financial and fiscal systems; (iv) extensive experience and skills in financial, credit and risk management, thorough understanding of financial analysis of investment holding companies, commercial banks and credit guarantee companies; and (v) experience in international cooperation. The financial management experts are expected to undertake following tasks:

**A. Due Diligence on I&G**

- (i) Assess I&G's solvency, profitability, liquidity, and the financial management capacity to undertake this project. Assess the capital adequacy, asset quality, management quality, earnings and liquidity,
- (ii) Assess historical financial performance, and projected future financial performance,
- (iii) Assess the autonomy of the I&G's governing body, and the strength of I&G's management in monitoring risks (e.g. market risk, value-at-risk, exchange rate risk, interest rate risk, etc.),
- (iv) Document the risks being faced by I&G, that are likely to affect its existence as a going concern, as well as effective implementation of the ADB-assisted project,
- (v) Assess I&G's compliance with the Capital Adequacy Ratio requirements prescribed by the PRC or any other financial sector regulator.
- (vi) Assess the I&G's credit concentration policies, and loan management policies, degree of autonomy in taking credit decisions,
- (vii) Review the quality of the Know Your Customer assessments, and enforcement of anti-money laundering arrangements,
- (viii) Develop security arrangements to protect the interests of I&G and the entrusted loan amount, and
- (ix) Assess the size of its outstanding guarantees, value of collaterals, and track record for guarantees.

**B. Due diligence of SDIC, Partner banks, and Subborrowers**

- (i) Conduct rigorous creditworthiness assessment of SDIC/partner banks and Subborrowers. This would be in addition to the technical and preliminary credit appraisal to be performed by I&G to determine prima facie eligibility,
- (ii) Ensure selected subprojects (a) demonstrate a positive net present value using the discount rate equal to the weighted average cost of capital, in real terms; and (b) have a financial internal rate of return exceeding the weighted average cost of capital,
- (iii) Prepare detailed cost estimates by expenditure category, financier and project output and component,
- (iv) Prepare allocation and withdrawal schedule, financial disbursement procedures, fund flow diagram and financial management plan in accordance with ADB's loan disbursement procedures applicable to financial intermediation loans, and
- (v) As subborrowers and subprojects would be identified continuously during project implementation, the consultants should assist in developing a framework for their analysis that can be applied to each new transaction.

9. **Environment Expert** (international, 2 person-month). The consultant must have (i) at least a master's degree in environmental engineering or relevant field, (ii) a minimum of 10 years of experience conducting environmental impact assessments, (iii) experience in international cooperation, and (iv) experience with environment safeguard policy requirements from international financial institutions and the preparation of an ESMS for sector and FI loans. The tasks to be undertaken by the expert include:

- (i) Prepare ESMS that would include an environmental assessment and review framework (EARF) with provisions for the FI taking over all steps without ADB involvement after the project completion report,
- (ii) Review the environment assessments prepared by subproject proponents and categorize the subprojects in accordance with ADB's Safeguard Policy,
- (iii) Follow-up on the preparation and approval of domestic environmental impact assessments and initial environmental examinations for the initial set of

subprojects. Based on the review of environment assessments and other relevant documents (such as feasibility studies and project permits) prepared by subproject proponents, prepare, as applicable, environment assessment reports, in accordance with ADB's Safeguard Policy in ADB format for review and approval by ADB,

- (iv) Assess the capacity of the selected FI and subproject implementing agencies and identify capacity building requirements to comply with the requirements of ADB safeguard policies applicable to FILs. The consultant will provide training to selected FI on environment assessment/review procedures of subprojects to be appraised after the loan agreement,
- (v) Develop the grievance redress mechanism for the first batch of subprojects before board approval,
- (vi) Prepare a consolidated project environment assessment report consisting of summaries of initial environmental examination reports for the initial set of subprojects to be appraised before the loan approval and an ESMS. These will clearly describe the project and its environment issues and risks; describe proposed mitigation measures; identify the environment screening, categorization and review procedures for all subprojects including the review procedures by the selected FI and ADB; and specify performance monitoring and reporting procedures of subprojects, among others Safeguards Policy Statement requirements,
- (vii) Provide trainings to the FI in the ESMS management.

10. **Environment Expert** (national, 3 person-months). The consultant must have (i) at least a master's degree in environmental engineering or relevant field, (ii) a minimum of 5 years of experience conducting environmental impact assessments, (iii) expertise in national procedures for environment due diligence of industrial projects (iv) experience in international cooperation, and (v) experience with ADB environment safeguard policy requirements and the preparation of an ESMS for sector and FI loans. The detailed tasks to be undertaken include the following:

- (i) Assist the international environment expert in undertaking the environment due diligence of candidate subprojects to be approved before the ADB loan approval.
- (ii) Assist in preparing the ESMS including the EARF specially with respect to filling the gaps between the domestic requirements of the PRC and ADB's Safeguard Policy requirements.
- (iii) Undertake the environment due diligence of candidate subprojects to be approved after the approval of ADB loan in accordance with the requirement of ESMS and EARF to ensure compliance with ADB safeguard policies.

11. **Social Expert** (national, 2 person-months). The consultant must have (i) at least a master's degree in social development or relevant field, (ii) minimum 5 years of experience working on internationally financed projects with land acquisition impact, and in-depth knowledge of current PRC legislation regarding land acquisition, and (iii) proven experience in social safeguard due diligence of industrial projects and (iv) experience with poverty, social and gender analysis, preferably in the energy efficiency sector. The detailed tasks to be undertaken include the following:

- (i) Undertake social safeguard due diligence for candidate subprojects to be approved before the ADB loan approval.
- (ii) Assist in preparing the ESMS for social safeguards screening, with an aim to exclude any subprojects with potential involuntary resettlement or ethnic minorities issues.

- (iii) Conduct poverty, social and gender analysis and prepare summary poverty reduction and social strategy.
- (iv) Undertake the social safeguard due diligence of candidate subprojects to be approved after the approval of ADB loan in accordance with the requirement of ESMS to ensure compliance with ADB safeguard policies.

12. **Procurement Expert/Coordinator** (national, 2 person-months). The consultant must have (i) at least a bachelor's degree in engineering or relevant field, (ii) minimum 5 years of experience in procurement, project management, and loan disbursement procedures of international financial institutions. The tasks to be undertaken by the expert include:

- (i) Undertake a procurement capacity assessment of financial intermediary with respect to the institutional ability to comply with ADB's procurement guidelines applicable to financial intermediation projects,
- (ii) Conduct assessment of China National Investment and Guaranty Corporation (I&G) own procurement rules and procedures,
- (iii) Assist in preparing the project administration manual,
- (iv) Coordinate the inputs of technical experts and environment specialists in appraising the subprojects to be approved after ADB loan approval,
- (v) Prepare guidelines and a template for quarterly and annual progress reports to be prepared by the implementing agency for ADB and government authorities,
- (vi) Provide capacity building on loan disbursement procedures and assist the implementing agency in preparing withdrawal applications during the first 12 months of project implementation,

## E. Implementation Arrangements

13. State Development & Investment Corporation will act as the executing agency for the PPTA and the ensuing project. National Development and Reform Commission will set up a steering committee to provide strategic advice during the PPTA and the implementation period of the ensuing loan. The I&G will act as the implementing agency and will provide counterpart staff, office space, and necessary data and information in greater BTH region. The disbursement will be done following ADB's *Technical Assistance Disbursement Handbook* (May 2010, as amended from time to time). The TA will be implemented from July 2016 to 31 December 2017. The proposed TA processing and implementation schedule is listed in Table A3.4.

**Table A3.4: Proposed Technical Assistance Processing and Implementation Schedule**

<b>Major Milestones</b>	<b>Expected Completion Date</b>
Approval of PPTA	July 2016
Inception mission for PPTA	July 2016
Midterm review of PPTA	August 2016
Final review for first phase of the PPTA and Loan Fact Finding	September 2016
Completion of PPTA	IV Quarter 2017

PPTA = project preparatory technical assistance.