

INTEGRATED SAFEGUARDS DATA SHEET

CONCEPT STAGE

Report No.: ISDSC589

Date ISDS Prepared/Updated: 17-Aug-2012

I. BASIC INFORMATION

A. Basic Project Data

Country:	China	Project ID:	P127035
Project Name:	Green Energy Schemes for Low-carbon City in Shanghai, China (P127035)		
Task Team Leader:	Xiaodong Wang		
Estimated Appraisal Date:	22-Oct-2012	Estimated Board Date:	05-Feb-2013
Managing Unit:	EASCS	Lending Instrument:	Financial Intermediary Loan
Sector:	Energy efficiency in Heat and Power (80%), Other Renewable Energy (15%), General transportation sector (5%)		
Theme:	Climate change (60%), Other urban development (30%), Environmental policies and institutions (10%)		
Financing (In USD Million)			
Financing Source			Amount
BORROWER/RECIPIENT			105.46
International Bank for Reconstruction and Development			100.00
Global Environment Facility (GEF)			4.55
Total			210.00
Environmental Category:	F - Financial Intermediary Assessment		
Is this a Repeater project?	No		

B. Project Objectives

The project development objective is to support Shanghai's quest to become a low-carbon city by developing green energy schemes, with a focus in Changning district, thereby reducing carbon emissions.

C. Project Description

The proposed project is designed as a fully blended IBRD and GEF project. The total project size is expected to be \$210 million, of which \$100 million IBRD loan, \$4.545 million GEF grant, and the remaining \$105.455 million counterpart funds from the district government, sub-borrowers, and the

participating bank. The GEF project design was approved by the Bank management, Chinese government, and the GEF Council in May 2011.

The proposed project has two components: (1) technical assistance and capacity building component funded by the GEF grant; and (2) low-carbon investments component funded by the IBRD loan. The technical assistance component covers both Changning district and Shanghai municipality, with a focus on pilots at district level and replication at municipal level, while the investment component focuses on Changning district. The first component will be implemented by the Project Management Office (PMO), while the second component will be implemented by Shanghai Pudong Development (SPD) Bank.

Component 1. Technical Assistance and Capacity Building

1.1 Green buildings (indicative cost estimate: US\$5.15 million, of which US\$3 million from GEF grant and US\$2.15 million from counterpart funds): This includes both retrofitting existing buildings and supporting new near zero-emission buildings. For building retrofit, the GEF funds will be used to pilot (a) mandatory measures and additional financial incentives; (b) business models and financing mechanisms; and (c) technical design of integrated technology renovation. For new near zero-emission buildings, the GEF funds will be used to (a) cover part of the incremental costs (incurred for EE, RE, and smart meters) above the municipal building codes, while the remaining incremental costs will be covered by district government and project developers; (b) develop policies and financing mechanisms to ensure sustainability and replication; and (c) support marketing campaigns to attract suppliers, buyers, renters, etc. for near zero-emission buildings.

1.2 Low-carbon energy supply (indicative cost estimate: US\$1.59 million, of which US\$0.59 million from GEF grant and US\$1 million from counterpart funds): This includes both on-site distributed generation (DG) from renewable energy and natural gas as well as trading of green electricity and possibly carbon cap and trade. The GEF funds will support (a) feasibility studies to pilot DG investments in Changning district, developing policies and innovative business models to support DG; (b) scale-up of the pilot purchase of green electricity schemes; and eventually (c) pilot carbon cap and trade, as Shanghai is selected as one of the four cities and two provinces under the NDRC pilot carbon cap and trade scheme.

1.3 Green mobility (indicative cost estimate: US\$1 million, of which US\$0.3 million from GEF grant and US\$0.7 million from counterpart funds): The GEF funds will primarily be used for technical assistance for policies, financing mechanisms, and public-private partnership business models, possibly in the following areas: (a) open-source transport data initiative to reduce empty trips of taxi; (b) studying and eventually piloting car-sharing with electric vehicles program; and (c) improved pedestrian infrastructure and services.

1.4 Integrating green energy schemes to achieve low-carbon objectives (indicative cost estimate: US\$2.26 million, of which US\$0.655 million from GEF grant and US\$1.605 million from counterpart funds): This subcomponent will (a) integrate the above green energy schemes to achieve district's low-carbon objectives, particularly the Measurement & Verification (M&V) methodology and system to monitor and verify energy savings and CO₂ emission reductions; (b) build capacity of key stakeholders such as district and municipal government officials and implementing agencies to ensure institutional sustainability; and (c) covering program management costs, donor coordination activities, and administration including fiduciary duties.

Component 2. Low-carbon Investments

The low-carbon investments will focus on building retrofit and new low-emission buildings, with the majority of the investments going to building retrofit.

2.1 Building retrofit (indicative cost estimate: US\$120 million, of which US\$70 million from IBRD loan and US\$50 million from counterpart funds): This component will finance (a) building energy efficiency improvements in commercial and government buildings, such as lighting, HVAC (heating, ventilation, and air conditioning) systems, energy management systems, building envelope insulation measures (roof, walls, windows, and doors); (b) renewable energy applications in buildings (roof-top solar PV, solar water heaters, and ground source heat pumps); (c) distributed generation from renewable energy and natural gas to provide power, cooling, and heating services to buildings; and (d) any other low-carbon initiatives proposed by counterparts and agreed by the Bank.

2.2 New buildings (indicative cost estimate: US\$80 million, of which US\$30 million from IBRD loan and US\$50 million from counterpart funds): This subcomponent will finance the incremental costs of low-carbon measures, primarily energy efficiency, renewable energy, and smart meters, for new buildings above municipal building code requirements (indicative cost estimate: US\$5.15 million, of which US\$3 million from GEF grant and US\$2.15 million from counterpart funds): This includes both retrofitting existing buildings and supporting low-emission new buildings. For retrofitting existing buildings, the GEF funds will be used to provide implementation support for the district to pilot (a) bolder policies to mandate higher energy efficiency or energy consumption quota for existing buildings and provide additional financial incentives for retrofitting inefficient buildings; (b) market-based mechanisms, business models and financing mechanisms to retrofit existing buildings on a large scale; and (c) feasibility studies on integrated approach for comprehensive technology renovation.

Framework Approach: Given that there will be many small-scale sub-projects (typically on average of \$500,000-\$1,000,000 for each sub-project, even if some sub-projects might be greater) and sub-borrowers for the investment component, a framework approach will be adopted for project implementation. The implementing agency, SPD Bank, will develop an Operational Manual, which outlines selection criteria for sub-borrowers and sub-projects, appraisal procedure and guideline, technical evaluation framework, environmental assessment framework, and procurement and financial management frameworks that are consistent with the World Bank and Chinese government rules and procedures. The Changning district government and the Bank will evaluate and approve the Operational Manual at appraisal. During project implementation, the implementing agency will be responsible for identifying, appraising, and financing sub-projects that meet the criteria in the Operational Manual and receive government approval.

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Component one on technical assistance and capacity building will cover both Changning district and Shanghai municipality, while component two on low-carbon investments will focus on Changning District of Shanghai.

E. Borrowers Institutional Capacity for Safeguard Policies

Environment

Currently, the Project Management Office (PMO) and SPD Bank do not have environmental specialists on its staff who are familiar with Bank safeguard policies. The PMO has assigned a staff member with a technical background (electrical engineering) to act as the environmental focal point,

and plans to use the safeguard experts in district government during project preparation period.

The Task Team will: (a) assess the capacity of the SPD Bank and the PMO to implement environmental safeguard requirement and responsibilities defined in the Environmental Assessment Framework; and (b) as appropriate, propose a capacity development program for inclusion in the project. The Task Team will also support the SPD Bank and PMO in preparation of any required environmental assessment documentation.

Social/Resettlement

Currently, the PMO and SPD Bank do not have social safeguard specialists on its staff who are familiar with Bank safeguard policies. The PMO has assigned a staff member with a technical and legal background to act as the social safeguard focal point. The Task Team will: (a) assess the social safeguard capacity of the PMO and SPD Bank to conduct due diligence review; and (b) as appropriate, propose a capacity development program for inclusion in the project.

F. Environmental and Social Safeguards Specialists on the Team

Bernard Baratz (EASCS)

Youxuan Zhu (EASCS)

Xin Ren (EASCS)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	<p>Environmental Issues Project related environmental issues appear to be minimal. An Environmental and Social Management Framework (ESMF) will be developed as part of the Operational Manual. Detailed public consultations would normally not be required but rather advanced public notification of the proposed project activities and a description of the manner in which safeguard issues would be addressed.</p> <p>For existing commercial buildings, the issues are occupational health and safety aspects associated with replacement of high energy use equipment and/or introduction of energy efficiency measures (e.g. low energy elevator motors, water sprays on existing air conditioning unit coils, reflective coatings on windows, boiler replacement/fuel switching etc.) management of old equipment (recycling, disposal etc.) and possibly the issue of removal and management of any hazardous materials (e.g. asbestos, PCBs).</p> <p>Due diligence review will be undertaken to</p>

	<p>confirm that relevant Chinese environmental and occupational health and safety laws and regulations have been or are being followed. Environmental specifications for the contractors will be provided to manage the retrofitting activities.</p> <p>For new commercial buildings, where investments would be to share incremental costs (including EE, RE, and smart meters) of near zero-emission and low-emission buildings, the issues again would be occupational health and safety aspects associated with installation of EE/RE equipment and measures.</p> <p>Any materials associated with EE/RE measures and/or activities would have to be in full compliance with Chinese international obligations under the Montreal Protocol. In particular, insulating materials for walls, piping etc., and refrigeration fluids which have the potential to include ozone depleting substances (ODSs) must be compliant. In addition, use of hazardous materials (e.g. asbestos for insulation) would be excluded.</p> <p>Environmental issues associated with new building which may be considered a connected project would be related to construction activities, including dust, noise, minor traffic disruptions, and potential handling of construction non hazardous waste. When completed, the issues of wastewater and municipal solid waste management would be the chief concerns. Potential construction issues are usually of limited duration, confined to small areas and completely reversible after construction activities are completed. Generally, they can be minimized with standard procedures for good engineering and construction. After completion, solid and wastewater management would most likely be the responsibility of Shanghai Municipality.</p> <p>For new buildings whose construction is yet to start, an ESMF will be prepared prior to appraisal. The ESMF will be prepared based on</p>
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		<p>applicable OP 4.01 and Chinese laws and regulations. The preparation of the ESMF will also take into account the relevant IFC Environmental, Health and Safety (EHS) Guidelines on Community Health and Safety, and Occupational Health and Safety to assess their applicability to this project. The Task Team has reviewed seventeen Chinese/Shanghai Municipality environmental/OHS laws and regulations for new building construction, and found that taken collectively, this body of requirements is generally consistent with the IFC EHS Guidelines. A sample generic Environmental Management Plan (EMP) will be included in the ESMF.</p> <p>Institutional responsibilities for implementing regulatory requirements during building construction and operation are clearly defined in the Shanghai Municipality body of regulations. As indicated above, the Task Team will perform due diligence on Shanghai Municipality and SPD Bank performance in following procedures specified in the ESMF for building construction and operation.</p>
Natural Habitats OP/BP 4.04	No	Investments will be confined to urban areas, therefore, will not trigger Natural Habitats Policy.
Forests OP/BP 4.36	No	
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	No	All investments will be confined to urban areas where Chinese permitting procedures would prevent siting a project on or near areas of high cultural value.
Indigenous Peoples OP/BP 4.10	No	The Indigenous Peoples Policy will not be triggered since all potential investments will be located within Changning District in Shanghai Municipality, where there are no concentrated ethnic minority communities.
Involuntary Resettlement OP/BP 4.12	No	For the component of retrofitting existing commercial and public buildings, since most adopted measures are within the existing buildings, no land acquisition and resettlement will be required.

		<p>For the component of supporting new near zero-emission buildings or new low-emission buildings, the Bank finance will only cover the incremental costs of EE/RE measures. No subproject requires land acquisition and the buildings selected for the project would have acquired the land (either purchase or made available by the government).</p> <p>Due diligence review of the land acquisition process is being undertaken in anticipation of the subprojects will be carried out to confirm if there are no outstanding issues in accordance with Chinese laws and regulations. Requirements on the due diligence review will be included in the ESMF.</p>
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 01-Apr-2012

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing¹ should be specified in the PAD-stage ISDS:

September 2012

IV. APPROVALS

Task Team Leader:	Name: Xiaodong Wang	
<i>Approved By:</i>		
Regional Safeguards Coordinator:	Name: Vilija Kostelnickiene (RSA)	Date: 29-Aug-2012
Sector Manager:	Name: Mark R. Lundell (SM)	Date: 23-Aug-2012

¹ Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.