

**INTEGRATED SAFEGUARDS DATA SHEET  
APPRAISAL STAGE**

Report No.:ISDSA16180

**Date ISDS Prepared/Updated:** 26-Oct-2017

**Date ISDS Approved/Disclosed:** 26-Oct-2017

**I. BASIC INFORMATION**

**1. Basic Project Data**

<b>Country:</b>	Uzbekistan	<b>Project ID:</b>	P146206
<b>Project Name:</b>	District Heating Energy Efficiency Project (P146206)		
<b>Task Team Leader(s):</b>	Feng Liu, Mitsunori Motohashi		
<b>Estimated Appraisal Date:</b>	06-Sep-2017	<b>Estimated Board Date:</b>	20-Dec-2017
<b>Managing Unit:</b>	GEE03	<b>Financing Instrument:</b>	Investment Project Financing
<b>Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?</b>			No
<b>Financing (In USD Million)</b>			
Total Project Cost:	232.00	Total Bank Financing:	140.00
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
BORROWER/RECIPIENT			92.00
International Development Association (IDA)			140.00
Financing Gap			0.00
Total			232.00
<b>Environmental Category:</b>	B - Partial Assessment		
<b>Is this a Repeater project?</b>	No		

**2. Project Development Objective(s)**

The project development objective is to improve the efficiency and quality of heating and hot water services in selected cities of Uzbekistan.

**3. Project Description**

The Project will have three components:

Component 1: Modernization of District Heating Systems. The component will finance energy efficiency investments in renovation of heat production and transportation and distribution systems, including installation of building-level individual heating substation and heat meters for billing purposes. In addition, gas, electricity, and water supply systems will be upgraded, where it is needed for district heating purposes. The component will

also finance procurement of specialized maintenance equipment for the participating district heating companies.

Component 2: In-building Improvements. This component will finance replacement of in-building heating system (distribution pipelines and radiators), as well as demonstration of cost-effective weatherization measures in selected residential buildings and social facilities.

Component 3: Implementation Support and Capacity Building. This component will finance capacity-building and implementation support for the Ministry of Housing and Communal Services, the Project Coordination Unit (PCU) in the Kommunkhizmat Agency, participating district heating companies and their Project teams, and home owners associations of the MABs and their management companies.

#### **4. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

The project will be in the following localities: Andijan City (Andijan oblast), Chirchik city (Tashkent oblast), Samarkand (Samakand oblast), Bukhara (Bukhara oblast) and Tashkent City (its Sergili district).

Andijan is a large regional, industrial, and cultural center located in the south-east of Fergana Valley. Climate of the area is distinctly continental. Winters are relatively mild, monthly average temperature varies from  $-4$  to  $+6$ °C. Precipitation falls in the form of rain and snow. From April to August heavy rains are possible, in summer there are exceptionally thunderstorms related to highly developed convection during heavy air intrusions.

Annual average precipitation varies from 240 to 260 mm. Duration of seasonal snow coverage does not exceed 30 days. Summers are dry and hot. In the city, there are various types of houses with the great majority of one-story buildings. The total number of multi-apartment buildings is 701 of which with independent in-house gas heating – 85 and connected to district heating – 616. Of last buildings 548 are connected to Issiklikmanbai boiler-houses and 68 connected to industrial boiler-houses. However, there was no district heating in residential buildings in the last years due to the poor state of heating sources and networks.

Chirchik is located in Tashkent region of the Republic of Uzbekistan, on the bank of the Chirchik River in a narrow mountain valley surrounded by offshoots of the Tian Shan Mountains. Its south-west is not blocked by the mountains. Physiographic characteristics of the area of Chirchik boiler-houses are conditioned by a severely continental climate with high amplitudes of day and seasonal temperatures, low precipitation and their uneven distribution among seasons, long, hot and dry summers and short dry winters. Chirchik district heating enterprise “Issiklik Energiyasi” has 14 boiler-houses; out which 12 are operating and 2 have been stopped due to the lack of consumers. Heating networks are constructed on high supports above ground and in reinforced concrete ducts under the ground. Due to physical deterioration and obsolescence of heating mains and in-house networks and above-limit system operation, heat and hot water consumption is higher than normative standards for heating-system water and power consumption.

The HP-8 is located in the northeast of Sergeli district of Tashkent. Private housing area is located 100 m to the east of the HP-8, industrial zone surrounds the boiler-house in the west and north, and an enterprise manufacturing sunshields is located 250 m to the south of the boiler-house. Physiogeographic characteristics of Tashkent determine its climate conditions, especially wind patterns. Climate of the region - dry semi-desert with the increased wind activities. Wind patterns in Tashkent and its surroundings are characterized by east, northeast winds in wintertime and north, northwest winds in summertime. The number of facilities connected to heating networks of Sergeli HP-8 in Sergeli district is 1,010, of which 830 multi-storey apartment building, 123 state-financed organizations, and 57 commercial enterprises. Both main and submain heating lines are constructed above ground on high supports and underground in reinforced concrete ducts.

The city and oblast of Bukhara is situated on an oasis in the Zerafshan river delta in central Uzbekistan in the southwest of the country. The Kyzyl Kum desert takes up a large portion of its territory. The climate is a typically arid. The current heat supply system in Bukhara is open meaning that hot water from DH network is directly used for heating and providing hot water. For the present, heat supply and hot water supply of the consumers of Bukhara city is carried out by boiler houses of two large producers of heat power: OJSC «Bukharaenergomarkaz»; and OJSC «Issiklik manbai». Besides there are objects -57 apartment houses which

are not connected to district boiler houses as before they belonged to various departments abolished nowadays and were supplied with heat by the departmental boiler houses liquidated now.

Samarkand city is located in the core of the Central area of Uzbekistan, in the junction of historical ways and modern railway, automobile and air networks. The climate of Samarkand, as well as all cities of the plain and foothill part of the Central Asia, has clearly expressed signs of arid climate. Here high temperatures of air and low humidity along with clear sky are typical for the summer period. Spring is short and rainy, winter is little-snow. With unstable snow cover. 37 boiler houses with single established thermal capacity from 0,2 to 91 Gcal/h providing heat supply of multi-storey apartment houses, social and cultural facilities, schools, kindergartens, health care facilities and other consumers are part of OJSC “Samarkand Issiklik manbai”. 680 multi-storey apartment houses, some state organizations and other consumers, including colleges, lyceums, schools, kindergartens, social and cultural and health care facilities are connected to the thermal networks of OJSC “Samarkand issiklik manbai” now.

## 5. Environmental and Social Safeguards Specialists on the Team

Arcadii Capcelea, Environmental Safeguards Specialist

Rebecca Emilie Anne Lacroix, Social Safeguards Specialist

## 6. Safeguard Policies That Might Apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	This OP is triggered as district heating rehabilitation and installation of new equipment and technologies might generate some environmental impacts such as: dust, noise, soil removal and destruction, occupational hazards, traffic disruption, construction wastes, etc. To address these issues the borrower conducted EIA studies and prepared for each participating city Environmental Management Plan (EMP), which are in compliance with the WB and national EA rules and procedures. The EIA/EMPs have been disclosed and publicly consulted in all participating cities with participation of all key stakeholders and local population. The EMPs will be used for project implementation.
Natural Habitats OP/BP 4.04	No	As the project will be implemented within city boundaries, it is expected there will be no natural habitats in its vicinity and thus this OP is not triggered.
Forests OP/BP 4.36	No	This OP is not triggered as the project will be implemented within the city boundaries and no forest areas will be in its vicinity.
Pest Management OP 4.09	No	This OP is not triggered as no pesticides will be purchased or applied under the project
Physical Cultural Resources OP/BP 4.11	No	The EIA/EMPs specify no buildings which are specified in the list of national Physical Cultural resources will be included in the project.
Indigenous Peoples OP/BP 4.10	No	No Indigenous people in Uzbekistan

Involuntary Resettlement OP/BP 4.12	Yes	As the project will support installation of new local and mini (container) boiler houses in participating cities, it might generate some permanent or temporary resettlement impacts (such as minor land acquisitions or livelihood impacts on shop owners working in the vicinity of the public works) and thus this OP is triggered. The rehabilitation and upgrading work planned under Component 1 is expected to take place on existing infrastructure and on land, which is owned by the state and managed by the oblast administration. However, the exact locations and the scale of physical works have yet to be determined and minor land acquisition might be required. To address potential impacts the borrower has prepared a Resettlement Policy Framework (RPF) for the project as a whole. Specific impacts will have to be confirmed by the borrower through each PIU once the feasibility study has been completed by conducting social screening of each project site. During the project, site-specific Resettlement Action Plans (RAP) will be developed as necessary by the borrower and any compensation paid before the commencement of construction works.
Safety of Dams OP/BP 4.37	No	None of the project activity will depend on or will impact dams safety.
Projects on International Waterways OP/BP 7.50	No	The project activities will not have any impacts on international waterways.
Projects in Disputed Areas OP/BP 7.60	No	The project will be not implemented in disputed areas.

## II. Key Safeguard Policy Issues and Their Management

### A. Summary of Key Safeguard Issues

#### **1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:**

The project EIA concluded the project will generate mostly positive socio-economic benefits due to the improvement of hot water supply and heating services for the population along with the improved environmental conditions in the participating cities. Replacement and modernization of old inefficient boilers or installation of new ones will significantly reduce the level of pollutants emitted, which will have significant positive effects on the health of the population. At the same time, it may also generate some adverse impacts: noise; air pollution; impact on water quality and resources; impact on water by the construction run-offs; disturbance of traffic during construction and rehabilitation works; construction dust; and workers safety, etc. However, these impacts will be temporary and site specific and could be easily mitigated through implementing adequate avoidance and/or mitigation measures. It was also concluded that no impacts are expected on sensitive or protected areas. Furthermore, no physical cultural resources will be involved/or impacted. The proposed investments are not anticipated to cause any permanent physical displacement. The rehabilitation and upgrading work planned under Component 1 is expected to take place on existing infrastructure and on land, which is owned by the state and managed by the oblast administration. However, the exact locations and the scale of

physical works have yet to be determined and as the project will support the installation of new local and mini (container) boiler houses in the participating cities, temporary or permanent impacts cannot be ruled out (such as minor land acquisition or livelihood impacts on shop owners working in the vicinity of the public works). To address them the borrower prepared a Resettlement Policy Framework, which will be applied in all participating cities.

**2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:**

The long term impacts are mostly positive and relate to the improvement of hot water supply and heating services for the population, and of air quality in the participating cities, which will have significant beneficial effects on the health of population.

**3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.**

Without the project the social and economic situation in participating cities would be worsening with an increase in the emissions of pollutants and adverse impacts on the health on the population. The alternative of using coal instead of natural gas was considered. The usage of coal is inferior both in economic and environmental terms.

**4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.**

To address potential project environmental and social impacts the borrower has conducted an Environmental Impact Assessment (EIA) and prepared Environmental Management Plans (EMPs) for all participating cities. The Environmental Assessment (EA) report includes the World Bank's safeguards policies applied to the proposed project, description of the policies, legal, and administrative framework regarding environmental management and the central heating sector in Uzbekistan, and five site specific EIA & EMPs for participating cities (Andijan, Bukhara, Chirchik, Samarkand, and Sergili district of Tashkent city). The EIA & EMP reports contain the following: (a) baseline analysis; (b) project alternatives; (c) potential environmental impacts and necessary activities targeted at mitigating them; (d) monitoring plan for EMPs implementation; (e) EMPs implementing arrangements as well as a short analysis of district heating companies (DHCs). All five EMPs for participating cities have been officially reviewed and approved by the Oblasts State Ecological Expertise. The approvals obtained contain a series of conditions to be fulfilled during the project implementation. The EMPs stipulate all adverse environmental impacts associated with the Project, which will be prevented, eliminated, or minimized to an acceptable level. This will be achieved through the implementation of the EMPs environmental mitigation measures, including careful replacing of old pipes and pumps and conducting rehabilitation works in a way that would prevent cutting of trees, destroying landscape in parks, air and soil pollution and; noise pollution; ensuring labor safety and health impacts during boilers replacement or modernizing, welding operations etc. The EMPs contain also a monitoring section, which provides: (a) details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation; and (c) institutional responsibilities and grievance mechanism.

The EMP provisions will form part of the design documents for the project, and will be included in the construction contracts for the proposed activities. The Contractors will be required to include the cost of EMP requirements in their financial bids and to comply with them during project implementation. The bidding documents for selecting the contractors will include specifications that would ensure effective implementation of environmental, health and safety performance criteria by the winning bidder. In particular: (i) preventing/limiting disturbance of soils and vegetation removal to the minimum; prevent soil compaction as well as other potential impacts; (ii) ensuring that all ground disturbing activities are conducted consistent with the construction requirements; (iii) developing a traffic management plan that include measures to ensure work zone safety for construction workers and the traveling public; (iv) conducting all activities on installing new boilers will be done with due care, ensuring labor safety; and (iv) obtaining approval for the traffic management

plan from the Traffic Police prior to commence of any construction/repair works; etc. The contract with winning bidder will include an obligation to inform the DHCs of any significant health, safety, and environmental accidents and events among subcontracted project workers.

The overall project implementation responsibility will lie with the central PCU under the Kommunkhizmat Agency. The safeguards issues will also be undertaken by the participating DHCs under the supervision of the PCU. The central PCU will have an ES which will oversee overall coordination of individual EMPs implementation, reporting to the Kommunkhizmat Agency and to the World Bank regarding safeguards issues, as well as of integrating safeguards requirements into bidding and contracting documents. The PCU will be responsible for interaction with the environmental authorities, ensuring an efficient implementation of safeguards documents and will undertake, randomly, field visits and environmental supervision and monitoring, assessing environmental compliance at worksites, and advise project participants and environmental specialists of the DHCs on environmental issues. The environmental specialist of the PCU will be responsible for identifying EA training needs for the participating DHCs and its environmental specialists and analyzing contracts in terms of environmental management and mitigation issues. Among major responsibilities of the environmental safeguards specialist at the DHCs will be the following: (a) ensuring that contractors complies with all EMPs requirements; (b) coordinating of all environmental and EA related issues at the city and oblast level; (c) conducting EMP supervision and monitoring and assessing environmental impacts and efficiency of mitigation measures, as well as identifying non-compliance issues or adverse trends in results, and putting in place programs to correct any identified problems; (d) when needed, providing advises and consulting contractors in EMP implementation; and, (e) reporting to the PCU with regard to EMP implementation. Lastly, the contractors will have the responsibility to operate in full compliance with national environmental legislation and with the EMP requirements and are obliged to follow regulative requirements of the national law and WB related to: occupational health and safety; fire safety; environmental protection; community health and safety; and to traffic safety. All EMP associated activities should be financed by the contractors. The contractors will also be requested to designate a person in charge of environmental, health and safety issues and for implementing the EMP and for reporting on EA issues.

To manage impacts covered under OP 4.12 the borrower has prepared a Resettlement Policy Framework (RPF). As the technical designs are finalized, the borrower will conduct screening of each site in the five cities to identify any impacts covered under OP 4.12. If necessary, the borrower will prepare Resettlement Action Plans (RAP) that integrate feedback from consultations with project-affected persons. Compensation and mitigation measures will be implemented before the start of project works. The PCU has retained the services of an experienced safeguards specialist who will be responsible for screening of project investment for social impacts covered under OP 4.12 and will closely monitor the subprojects for any social impacts.

**5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.**

The draft EIA & EMP was disclosed and consulted with all interested parties in participating cities. Furthermore, the hard copies of the EIA & EMP Executive Summary of the draft document has been distributed to the key stakeholders: sanitary and environmental authorities, design institutes, environmental NGOs and mahallas. After the public consultations the EA document has been updated and disclosed on municipalities websites and in WBdocs.

The draft RPF was disclosed and discussed with key stakeholder in the five participating cities. In person consultations were organized in Bukhara, Samarkand and Chirchik, while virtual consultations were organized in Sergeli district (Tashkent) and Andijan. Questions received mainly pertained to information about the project and compensation (e.g., start date, scope of works, compensation for structures) and these were clarified during the consultation process. The final RPF was disclosed on Uzkommunhizmat website and in WB docs.

A Grievance Redress Mechanism (GRM) has been established for the project to manage any concerns related to safeguards. Feedback can be submitted to the subproject PIUs or the PCU that is responsible for documenting and responding to complaints. More generally, the TA and capacity-building component of the project will include developing a communications strategy and training to build District Heating Companies' capacity to understand and react to customers' concerns through more systematic customer feedback collection, analysis, and response to such feedback. Progress will be verified through regular customer feedback at the level of municipalities and utility companies, as well as annual customer satisfaction surveys. The project includes a core indicator to measure progress on customer satisfaction. This is also disaggregated by gender to account for, and take action on, any potential differential impacts upon female and male customers.

### ***B. Disclosure Requirements***

<b>Environmental Assessment/Audit/Management Plan/Other</b>	
Date of receipt by the Bank	13-Sep-2017
Date of submission to InfoShop	19-Sep-2017
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	
<b>"In country" Disclosure</b>	
Uzbekistan	13-Sep-2017
<i>Comments:</i>	
<b>Resettlement Action Plan/Framework/Policy Process</b>	
Date of receipt by the Bank	05-Oct-2017
Date of submission to InfoShop	16-Oct-2017
<b>"In country" Disclosure</b>	
Uzbekistan	16-Oct-2017
<i>Comments:</i>	
<b>If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.</b>	
<b>If in-country disclosure of any of the above documents is not expected, please explain why::</b>	

### ***C. Compliance Monitoring Indicators at the Corporate Level***

<b>OP/BP/GP 4.01 - Environment Assessment</b>					
Does the project require a stand-alone EA (including EMP) report?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
<b>OP/BP 4.12 - Involuntary Resettlement</b>					
Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
Is physical displacement/relocation expected?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	TBD <input type="checkbox"/>
Is economic displacement expected? (loss of assets or access to assets that leads to loss of income sources or other means	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	TBD <input type="checkbox"/>

of livelihoods)					
<b>The World Bank Policy on Disclosure of Information</b>					
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
<b>All Safeguard Policies</b>					
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
Have costs related to safeguard policy measures been included in the project cost?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA <input type="checkbox"/>

### III. Approval

Task Team Leader(s):	Name:Feng Liu,Mitsunori Motohashi	
<i>Approved By:</i>		
Safeguards Advisor:	Name: Nina Chee (SA)	Date: 26-Oct-2017
Practice Manager/Manager:	Name: Sameer Shukla (PMGR)	Date: 26-Oct-2017