



European Investment Bank (EIB)

Luxembourg, 28.11.2019

Environmental and Social Completion Sheet (ESCS)

Overview

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| Project Name: | CCCFL II - HARBIN BUILDING EFFICIENCY |
| Project Number: | 2013-0022 |
| Country: | China |
| Project Description: | The operation consists of the refurbishment of existing residential buildings in Harbin in north-eastern China. In total, 484 buildings and 4,973,964 square metres of floor area have been refurbished. |

Summary of Environmental and Social Assessment at Completion

The operation has supported projects that reduce energy consumption in buildings. The project reduced atmospheric pollution related to the production of heat and electricity (SO₂, NO_x and particulates) and helped mitigate climate change by avoiding associated CO₂ emissions.

EIB notes the following key Environmental and Social outcomes at Project Completion.

The purpose of the project is to improve the thermal insulation of panel buildings in Harbin in north-eastern China. In total, 484 (originally 806 smaller buildings were targeted) buildings and 4.97 million square metres of floor area were refurbished. The programme has reduced the heat demand of the buildings by resp. 27%, 39% and 43%, depending on the applicable saving standard (50, 63 or 65%). The total heat saved by the project is calculated at 255 GWh per year, which is in line with what was estimated at approval.

Considering these energy savings, the estimated emissions savings are around 64,000 t of CO₂ equivalent per year in a conservative gas fired generation scenario and 135,000 t CO₂ under the existing coal fired generation scenario. As of today coal is still used as fuel for the heating of the buildings, however this might change in the near future as Chinese policies plan for conversion to gas for building heating.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Temporary nuisance due to the excavation works and construction (dust, noise, traffic disruption) were mitigated through appropriate site organisation and construction management. No accidents occurred; no complaints were registered during the works.

An EIA was conducted for the whole Project and was approved by Heilongjiang Provincial EPB. The approved EIA report has identified the needs for good management and supervision of environmental issues during construction, including noise, dust, traffic, solid wastes following construction, and domestic wastes, as well as the need for an environmental emergency plan.



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It should be noted that the EIA did not identify the potential presence of some hazardous materials associated with aged buildings as a concern. These hazardous materials may include asbestos, leaded paint, PCB containing devices and mould.

The promoter reports that none of these hazardous materials were found, either before or during the works.

The promoter managed the works in line with the Quality Management Plan, developed for the project and approved by the Bank.

During the project implementation period, about 2550 person-years of employment was created in the buildings energy efficiency renovation work

No permanent jobs were created.

The refurbishment Project did not involve any resettlement during the construction.

The design of the building refurbishment included the necessary fire safety measures; also during construction special attention was given to safety of workers and inhabitants, which was managed by the promoter's safety department. No incidents were reported during the implementation of the works.

Summary opinion of Environmental and Social aspects at completion

The Bank is of the opinion, based on the promoter's completion report, previous progress reports, as well as the Bank's own assessment, that the Project was successfully implemented and in compliance with the EIB Environmental and Social Standards (applicable at the time of appraisal). The environmental and social benefits of the Project are high considering the significant emission savings as well as the increase of comfort for the final beneficiaries.