EBRD COVID-19 Resilience Framework - Environmental and Social Assessment Training Programme

Video 5 – District heating sector

June 2020

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Introduction

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The purpose of this training video is to illustrate how EBRD's Environmental and Social Policy (2019) and the accompanying Performance Requirements can be applied during an environmental and social assessment of a Project within the district heating sector.

The example used is the construction and operation of a new combined heat and power plant.

Introduction to the Project

Key facts:

- Installation of a new combined heat and power plant within an existing steel plant.
- Some existing structures will need to be demolished.
- The new plant will generate electrical power and hot water for district heating from the steel plants' waste gasses.
- The new plant will eliminate the use of coal for district heating, and reduce the quantity of electricity purchased from the national grid.
- The Project includes upgrading the existing district heating water pipe network and refurbishing existing buildings to improve energy efficiency.
- The Project will address region's high levels of air pollution.

Application of the PRs

EBRD Performance Requirement		Applicability and justification
1	Assessment and Management of Environmental and Social Risks and Impacts	Yes – category B Project. A detailed Environmental and Social Assessment was completed.
2	Labour and Working Conditions	Yes – due to the use of a workforce for the construction, upgrade and refurbishment works, and also during future operations. Contractor management is required.
3	Resource Efficiency and Pollution Prevention and Control	Yes – due to the Project's associated facility (the existing steel works) and their generation of air emissions, noise, as well as the need to use pollution prevention and control technologies to treat waste gasses to comply with EU Directives on industrial emissions, and Best Available Techniques.
4	Health, Safety and Security	Yes – from the use of road vehicles, and hazards to workforce from the construction, upgrade and refurbishment works. Also asbestos-containing materials might be present in the structure to be demolished (in boiler and pipe insulation).
5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Yes – whilst all of the construction, upgrade and refurbishment works, will take place within the physical boundary of the existing steel works, temporary restrictions in access will occur during refurbishment of the existing district heating water pipe network.
6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	No – there are no anticipated impacts to biodiversity from the Project.
7	Indigenous Peoples	No – there are no people in the project area that meet the PR7 applicability criteria.
8	Cultural Heritage	Yes – the Project involves excavations during refurbishment of the existing district heating water pipe network.
10	Information Disclosure and Stakeholder Engagement	Yes – a comprehensive public disclosure and consultation process was undertaken. Stakeholder concerns included temporary access restrictions during refurbishment of the existing district heating water pipe network.

Application of the PRs

Using the Project we will explore the application of:

- PR1: Assessment and Management of Environmental and Social Risks and Impacts
- PR3: Resource Efficiency and Pollution Prevention and Control
- PR10: Information Disclosure and Stakeholder Engagement

Task 1 – Review of existing documentation

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Task 1 – Review of existing documentation

The following was requested from the Client:

PR1: Assessment and Management of Environmental and Social Risks and Impacts

- Environmental and social policies, procedures, management plans

PR3: Resource Efficiency and Pollution Prevention and Control

NOTE: the documents requested covered the combined heat and power plant and the existing steel plant which is an associated facility to the Project.

- Environmental monitoring reports (air, noise, wastewater etc.)
- Resource and emissions inventory; annual GHG calculations and method statement
- Best Available Technique (BAT) assessment reports
- Integrated Environmental Permit under the EU Integrated Pollution Prevention and Control (IPPC) framework
- Soil and groundwater investigations or monitoring
- Hazardous materials surveys (e.g. asbestos surveys)

PR10: Information Disclosure and Stakeholder Engagement

- Stakeholder engagement plan and grievance mechanism
- Records of stakeholder engagement activities
- Grievance records

Task 2 - Site visit and discussions

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PR1: Assessment and Management of Environmental and Social Risks and Impacts

- Steel works operations:
  - Based upon certified management systems: ISO 9001:2015; ISO14001:2015; and OHSAS 18001:2017
  - Policies recently updated
  - Established QHSE team with separate departments responsible for quality, environmental protection, and occupational health and safety
- Management system requires ongoing evaluation of environmental and social aspects covering: (1) their existing operations; and (2) their investment programme
- Assessment in line with the IPPC permitting process.
- The new plant will be a 50:50 joint venture and require a management system similar to the existing steel works
- Construction and operation of the new plant will be managed by experienced and qualified personnel from the steel works.

NOTE: The final bullet point is important as an existing management system shall be adopted and applied to a new industrial activity, using experienced and qualified personnel who are already familiar with the management system's policies and procedures. This is a sensible and low-risk approach.

PR3: Resource Efficiency and Pollution Prevention and Control

- Environmental and social risks and impacts associated with the steel plant's existing operations was evaluated through a review of:
  - IPPC permitting documentation
  - Environmental monitoring data
  - Quantifying improvements in resource efficiency generated by the new plant
  - Evaluating the abatement design criteria and how the Project will ensure the plant emissions are in line with EU SO_2 and dust emission standards
- The current steel plant has an air quality monitoring system. How will the Project's monitoring network be aligned with the steel works' monitoring activities?

PR3: Resource Efficiency and Pollution Prevention and Control

- Greenhouse Gases – the Project will decrease GHG which may change the reporting requirements to EBRD
- Site located within the existing steel plant's footprint. How has the Project evaluated the historical soil and groundwater risks, and taken account of these in the earthworks plan?
- The wet flue-gas desulphurisation (FGD) system will generate a wastewater stream, are there any implications for wastewater system's compliance or ability to treat it?
- The demolition of existing structures will need consideration of the presence of hazardous materials such as asbestos, lead paint, hazardous chemicals & wastes.

NOTE: The site walkover is an excellent way to appreciate if the companies EHS management systems are applied rigorously on the ground. Take account of how you are briefed and looked after, and observe information on hazardous materials or atmospheres, and H&S features.

PR10: Information Disclosure and Stakeholder Engagement

- Stakeholders include communities within the area of influence from existing air emissions, future users of the upgraded district heating network (schools, health facilities, administration buildings).
- A Municipal Environmental Commission was established to coordinate the Project's engagement activities (site visits, regular meetings, involvement of academic experts)
- Regular meetings in six surrounding local communities and school visits
- Annual public meetings, media campaigns, local radio and national TV, promotional films.
- Technical, vocational and educational training opportunities (youth development) which included scholarships
    - Engagement with colleges, universities, etc.
- Grievance mechanism (phone, text, email, postal mail)
- Grievance records: noise, dust, spillage on a public road by a subcontractor's truck.

Task 3 – Analysis and reporting using the EBRD format

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Task 3 – Analysis and reporting using the EBRD format

The following gaps were identified that needed to be addressed in the ESAP:

1. Establish a environmental and social management system similar to the steel works for the new combined heat and power plant
2. Prepare an air monitoring plan that is aligned with the existing steel work's plan
3. Conduct a soil and groundwater investigation within the new site to check for the presence of historical contamination
4. Prepare a community health and safety plan (excavations, temporary road deviations, traffic and transportation issues)
5. Prepare an asbestos management plan and a demolition plan
6. Prepare a chance finds procedure

Application of the PRs

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