

Project Description	Mahan Aluminum Smelter Complex
Sponsors	Hindalco Industries Limited
Country	India
Project Category	A
Canadian Exporters(s)	Various
Description of capital goods and/or Services	Sale of various Canadian goods and services
EDC Product	Financing
Date of Publication on EDC website (dd/mm/yy)	15/02/2012
Date of Signing (dd/mm/yy)	24/11/2012

### Project Categorization

The Mahan Aluminum Smelter Complex is an integrated Greenfield smelter including an aluminum smelter with a production capacity of 3.59 MTPA, a coal-fired captive power plant (CPP) of 900 MW (6 x 150MW) and ancillary infrastructure including transmission lines, a water pipeline, railway siding construction camp and a resettlement village. The Project was classified as Category A. Please consult EDC's [Environmental Review Directive](#) (ERD) for category definitions.

### Summary of EDC's Review

EDC reviewed the project in accordance with its *Environmental and Social Review Directive* and concluded that the project is designed to meet internationally recognized good practices, guidelines or standards. In reaching this conclusion, EDC reviewed a project environmental impact assessment, which was benchmarked against relevant international environmental and social standards, and reviewed for appropriate mitigation measures against the project's potential environmental and social effects. EDC's review also included an assessment of the project's stakeholder engagement activities as well as a site visit to the project.

### Key environmental and social issues associated with the project and related mitigation measures reviewed by EDC include, but are not limited to, the following:

**Air Quality:** Atmospheric emissions from the CPP during operations.

**Mitigation Measures Included:** The CPP was designed to incorporate best available technology which includes the use of electrostatic precipitators for the control of PM and low NOx burners for the reduction of NOx. SO<sub>2</sub> will be managed primarily through the use of lower sulphur coal supply and atmospheric dispersion. The Project will implement continuous emissions monitoring system for particulate matter.

**Greenhouse Gases:** Carbon dioxide emissions from the operation of the CPP.

**Mitigation Measures Included:** The smelter was designed to incorporate a range of technologies to reduce energy consumption and thereby reduce overall GHG emissions during smelter operations such as the Hall-Heroult Electrolysis process which greatly reduces energy demand from traditional smelting technology thereby reducing energy demand and a reduction in GHG emissions.

**Labour and working conditions:** The construction phase of the project required a large-scale construction workforce and worker accommodation camp, and potential for occupational health and safety impacts including the possible use of child labour was also identified as a key potential risk for the Project. during construction and operation.

**Mitigation Measures Included:** The project developed operational and contractor level management protocols to ensure that the corporate policies are included in the contractor labour management programs and are complied with specifically as it relates to equal employment opportunities, wages and accommodation. Each contractor has an Occupational Health and Safety (OH&S) team comprised of an OH&S manager, senior safety officers, safety officers, supervisors and stewards responsible for developing and enforcing Specific Operating Procedures (SOPs) for different aspects of their work.

The use of child labour is strictly prohibited by the Project Labour Policy which applies to all contractors with proof age requirements in effect. Regulatory labour audits are required bi-annually to track compliance with federal regulations.

**Resettlement:** Approximately 1,200 families were impacted or displaced by the development of the Project.

**Mitigation Measures Included:** A Resettlement Action Plan (RAP) was developed for the Project and implemented by the project overseen by the state government. The Project has approached the issues of land acquisition and resettlement in a phased manner.

**Documentation Reviewed:**

Environmental Impact Assessment and Management Plans (2009)

Resettlement Action Plan (2009)

*Mahan Health and Safety and Emergency Response Plans (2011)*

Technical Review Report (2011)

Construction Phase Environmental and Social Audit.

**Applicable International Finance Corporation (IFC) Environmental and Social Standards used by EDC (in addition to host country requirements):**

Performance Standard 1: Social and Environmental Assessment and Management System;

Performance Standard 2: Labour and Working Conditions

Performance Standard 3: Pollution Prevention and Abatement

Performance Standard 5: Land Acquisition and Involuntary Resettlement.

Performance Standard 4: Community Health Safety and Security

Performance Standard 6: Biodiversity Conservation and Sustainable Natural Resource Management

NOTE: IFC Performance Standard 3 references the sector-specific IFC Environmental, Health and Safety (EHS) Guidelines and EDC has considered these guidelines in conducting its review, specifically *Base Metal Smelting and Refining Guideline*, and the *General EHS Guideline*