

Project Description	Construction of an integrated petrochemical complex
Sponsors	Braskem-Idesa S.A.P.I.
Country	Mexico
Project Category	A
Canadian Exporter(s)	General Electric Canada Company
Description of capital goods and/or services	Sale of various Canadian goods and services
EDC Product	Financing
Date of publication on EDC's website (dd/mm/yy)	23/04/2012
Date of Signing (dd/mm/yy)	19/12/2012

### Project Categorization

The project involves the site preparation, construction and operation of a petrochemical complex which includes three polyethylene plants. The project is located on industrial land in the petrochemical producing region of Veracruz, Mexico. The project will make use of existing rights-of-way as much as possible to minimize land acquisition; future short-term lease or acquisition of small amounts of land will be addressed by the development and implementation of a Land Acquisition Framework, as required. The project was classified as Category A. (Category definitions can be found [here](#), see D3 Environmental & Social Reporting).

### Summary of EDC's Review

EDC reviewed the project in accordance with the requirements of our Environmental and Social Review Directive and the Equator Principles, and concluded that the project is designed to meet or exceed internationally recognized good practices, guidelines or standards.

In reaching this conclusion, EDC reviewed a project environmental and social 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 during the approval process. Further, the project will develop a Stakeholder Engagement Plan.

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

**Air quality:** Atmospheric emissions from cracker furnaces, extruders and silos during operations

**Mitigation measures include:** Use of best available technology including low NOx burners, waste heat recovery system, installing filters on extruders and silos, fugitive

emission controls such as floating roofs and venting systems, and the use of a continuous emissions monitoring system.

**Greenhouse gases:** Carbon dioxide emissions from cracker furnaces operations  
**Mitigation measures included:** Use of best available technology including energy optimization measures such as high thermal efficiency furnaces, high efficiency combustion system with low NOx burners, and minimum heat requirement for separation and applied process-process heat integration to minimize heat exchange surfaces. Ongoing greenhouse gas monitoring and quantification were based on internationally recognized methodologies.

**Biodiversity:** Impacts to International Union for the Conservation of Nature (IUCN) Red-listed plant species during construction

**Mitigation measures included:** Implementation of pre-construction flora surveys to identify all Red-listed plant species within the project area; establishment of a “set-aside” of natural habitat where the company transplanted the plant species identified during site preparation activities; and the acquisition of an additional forest area, consisting of similar mosaic and natural habitats to carry out related restoration activities.

**Labour and working conditions:** During the site preparation and construction, the project will employ approximately 1,000 and 8,000 workers, respectively

**Mitigation measures included:** Implementation of a human resources management system to manage labour conditions during the various phases of the project. The project is also committed to developing: (i) a workers’ grievance mechanism procedure which will be applicable to all staff and contract workers; (ii) a local hiring plan for site preparation and construction; (iii) an internal compliance evaluation protocol for monitoring the construction contractors and subcontractors and supply chain implementation of the company’s human resources policy; and (iv) a local hiring plan and employee manual. The project will also retain an external expert to carry out quarterly labour audits during construction.

**Community health and safety:** The nearest community is within three kilometres of the plant boundary. As such, there are potential health and safety risks due to accidents, explosions, *etc.*

**Mitigation measures included:** Implementation of a traffic management plan, an emergency response program and a community grievance mechanism and management system.

**Documentation Reviewed:**

- Environmental and Social Impact Assessment (2011)
- Environmental and Social Due Diligence Report (2012)
- Environmental and Social (E&S) Action Plan (2012)
- IFC Environmental and Social Review Summary (2011)

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

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts
- Performance Standard 2: Labor and Working Conditions
- Performance Standard 3: Resource Efficiency and Pollution Prevention<sup>1</sup>
- Performance Standard 4: Community Health Safety and Security
- Performance Standard 5: Land Acquisition and Involuntary Resettlement
- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- Performance Standard 8: Cultural Heritage.

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<sup>1</sup> 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 the IFC *EHS Guidelines for Petroleum based Polymers Manufacturing* (April 2007), *Large Volume Petroleum-based Organic Chemicals Manufacturing* (April 2007) and the *General EHS Guidelines* (April 2007).