

## EDC PROJECT REVIEW SUMMARY: Lake Charles Project

<b>Project Description</b>	Development and construction of a greenfield ethane cracker and six downstream units
<b>Sponsors</b>	Sasol Ltd.
<b>Country</b>	U.S.A.
<b>Project Category</b>	A
<b>Canadian Exporter(s)</b>	Various Canadian Exporters
<b>Description of capital goods and/or services</b>	Sale of Various Canadian Goods and Services
<b>EDC Product</b>	Limited Recourse Financing
<b>Date of publication on EDC's website (dd/mm/yy)</b>	09/10/2014
<b>Date of Signing (dd/mm/yy)</b>	22/12/2014

### Project Categorization

The Project consists of a 1,540 kiloton per year (kta) single train ethane cracker<sup>1</sup> and ethylene derivative units, as well as associated infrastructure and utilities, located near the town of Westlake, Louisiana, U.S.A. The derivatives units will comprise two polyethylene plants and an ethylene oxide / ethylene glycols unit, among others. Associated infrastructure activities include the widening of existing roads, bridges and pipeline corridors, as well as the construction of a loading dock along the Calcasieu River. Once operational, the Project will transform low-value ethane, generated as a by-product of natural gas production, into ethylene and other high-value chemicals. 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 our *Environmental and Social Review Directive* and the *Equator Principles*, and EAS has determined that the project has been designed in compliance with applicable host country environmental requirements and the Equator Principles. To reach this conclusion, EDC reviewed a project Environmental Impact Assessment; an independent due diligence report; and host country permit approval documentation.

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

**Greenhouse Gas Emissions (GHGs):** The Project is permitted to emit up to approximately 6.2 million metric tons of CO<sub>2</sub>-equivalent per year, although actual emissions may be lower.

**Mitigation measures include:** The Project was subject to extensive Best Available Control Technologies and alternatives analysis as a part of the environmental assessment and permitting process, which determined that the Project had considered feasible alternatives and technologies to reduce GHG emissions. Furthermore, emissions data will be publicly disclosed via the USEPA's GHG Reporting Program.

<sup>1</sup> An ethane cracker transforms ethane, a component of natural gas, into ethylene under the influence of heat.



**Other Air Emissions:** The Project will emit material quantities of nitrogen oxides (NO<sub>x</sub>); sulfur dioxide (SO<sub>2</sub>); particulate matter (PM); carbon dioxide (CO<sub>2</sub>); nitrous oxide (N<sub>2</sub>O); and methane (CH<sub>4</sub>) during operations.

**Mitigation measures include:** As above, the Project was subject to an extensive Best Available Control Technologies analysis with respect to air emissions to demonstrate compliance with the U.S. National Ambient Air Quality Standards, as well as applicable State permits (e.g. Prevention of Significant Deterioration Permit; Title V Permit).

**Wetlands Impacts:** The Project is expected to adversely impact approximately 770 acres of gallery bottomland hardwood forest, coastal prairie and tidal freshwater marsh habitat at the Project Site and associated loading dock site.

**Mitigation measures included:** The Project is required to offset its anticipated wetland habitat impacts by restoring, establishing, enhancing and/or preserving approximately 1,995 acres of similar wetland habitat. Compensatory mitigation will be provided within the same watersheds as the permitted impacts, and will be managed by a wetland mitigation bank based in Louisiana.

**Documentation Reviewed:**

- Record of Decision: Gas-to-Liquids and Lake Charles Cracker Plant (MVN-2013-00129-WII; September 2014);
- Record of Decision: Port of Lake Charles (MVN-2013-01390-WII; September 2014);
- Independent Technical Review prepared for prospective lenders (August, 2014); and
- Environmental Impact Assessment (June, 2014)

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

- N/A