

# Sunrise Energy Project

## A SIGNIFICANT AND SECURE SOURCE OF ENERGY

Husky Energy (Husky) and BP PLC (BP) have partnered to create an energy solution that focuses on responsible resource development of Alberta's oil sands. Husky and BP are equal partners in the Sunrise Energy Project, with Husky operating Sunrise. The partnership is committed to developing the Sunrise Energy Project in a manner that minimizes environmental impacts.

### Sunrise

Located 60 kilometres northeast of Fort McMurray, Alberta, Sunrise has a rich bitumen deposit with estimated total proved, probable and possible reserves of 3.7 billion barrels (estimated as of December 31, 2009). The project will be built in phases, ultimately producing more than 200,000 barrels of bitumen per day, and will be a 40 year secure and stable source of crude oil production for North America. Construction of facilities is scheduled to begin in 2011, followed by first oil in 2014.



● Husky oil sands land position

The development of Sunrise is strategically linked to the reconfiguration of the BP-Husky Toledo refinery, operated by BP. Production from Sunrise will be shipped to the refinery in Toledo, Ohio, using existing pipelines and rights-of-way wherever possible. It will then be refined into transportation fuels and other energy products.

## Need and Opportunities

With reserves second only to Saudi Arabia, Canada's oil sands provide a significant and secure source of oil to enhance energy security. In addition to energy security benefits, the development of Canada's oil sands offers wide-reaching economic benefits.

- Across Canada, over 456,000 jobs are directly or indirectly linked to the construction and operation of oil sand facilities.<sup>1</sup>
- Every dollar invested in the oil sands creates nine times that amount in economic activity; with one-third of that value generated outside Alberta – in Canada, the U.S. and around the world.<sup>2</sup>
- During the next 25 years, the oil and gas industry of Alberta is expected to:
  - › require more than 450,000 annual work positions across Canada, representing 11.4 million person-years of employment;
  - › add \$789 billion to Canadian Gross Domestic Product; and
  - › deliver tax revenue of \$307 billion.<sup>2</sup>
- Over the life of the project, Sunrise will:
  - › create approximately 1,800 direct jobs in Alberta for construction and an additional 295 jobs for operations; and
  - › generate an estimated \$40 billion in royalties, \$6 billion in corporate income tax to Alberta and \$8 billion in corporate income taxes to the federal government.
- Joint investment at Sunrise and the Toledo refinery is greater than \$10 billion for the scope of the development - a significant boost to the economies of both regions.

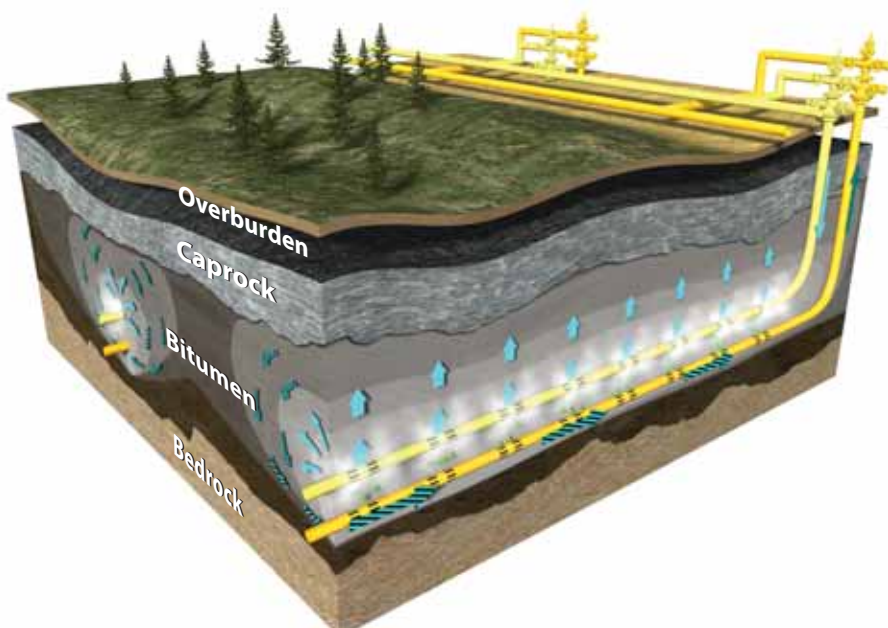
## Responsible Approach To Development

Husky has a 70-year track record of responsible development and deliberate pursuit of new initiatives to minimize the environmental impact of operations. The Company received regulatory, environmental and operating approvals for Sunrise Phases 1 through 3 from the Energy Resources Conservation Board in 2005 and from Alberta Environment in late 2006. Such approvals meet or exceed Canada's and Alberta's regulatory legislation, which details the legal framework for air emissions and other environmental stewardship considerations.

## Environmental Improvements

Environmental considerations are built into every aspect of design, construction and operation of the Sunrise Energy Project. Emerging technologies have made significant improvements which have enabled the oil sands industry to reduce its emissions intensity (a measure of greenhouse gas emissions per barrel of oil produced) by more than 30 percent since 1990.<sup>1</sup>

Using modern, available, and proven technology, Husky will extract bitumen at Sunrise using Steam-Assisted Gravity Drainage (SAGD) technology, which eliminates the need for large tailings ponds and open pit mining. SAGD is a steam process using pairs of horizontal wells. Each well pair consists of a producer and an injector. The injector well is located about five metres above the producer. It injects steam into the reservoir, heating the bitumen and enabling it to flow. The bitumen and condensed steam drain to the lower horizontal well (the producer) and are pumped up to the surface. Water and bitumen are then separated; the water recycled and the bitumen prepared for transportation to the refinery.



## Clean Air Management and Technology Enablers

Husky is committed to address greenhouse gas emissions across all of its operations. As a member of the Integrated CO<sub>2</sub> Network (ICON), the Company works with industry, regulators and governments, to lead the development and adoption of new technologies that will improve energy efficiency and reduce emissions.

Though the oil sands account for less than five percent of Canada's greenhouse gas (GHG) emissions, and less than 0.1 percent of total global emissions<sup>3</sup>, technological advances will remain key contributors to continuously reduce emissions and improve environmental performance of oil sands production.

At Sunrise, specific control technologies in both process and in equipment will help reduce greenhouse gas emissions and improve air quality, through:

- use of energy efficient designs to reduce steam oil ratios;
- ultra low NO<sub>x</sub> boiler technologies with flue gas recirculation that significantly reduce nitrogen oxide (NO<sub>x</sub>) emissions;
- sulphur recovery equipment to reduce sulphur dioxide (SO<sub>2</sub>) emissions as the project proceeds;
- design layout to facilitate future carbon dioxide (CO<sub>2</sub>) capture;
- recovering gas vapours from tanks and process vessels so that they could be used as fuel and do not enter the atmosphere;
- emissions scrubbing for air pollution control; and
- no venting of produced gases or flaring facilities at the well pads.

Throughout the life of the project, Husky will participate in comprehensive air monitoring programs, both at the Sunrise project and regionally, while the Company's Environmental Performance Reporting System (EPRS) will facilitate and make available the provision of accurate and environmental data.

Proven Steam-Assisted Gravity Drainage (SAGD) technology, a steam process that uses pairs of horizontal wells, will be used to extract bitumen at Sunrise.



## Minimal Land Disturbance

Under current plans, the Sunrise SAGD operations will disturb less than five percent of the lease area from the full project and progressive land reclamation will be used throughout the life of the project to further reduce ongoing disturbance.

Additional efforts to minimize land disturbance include:

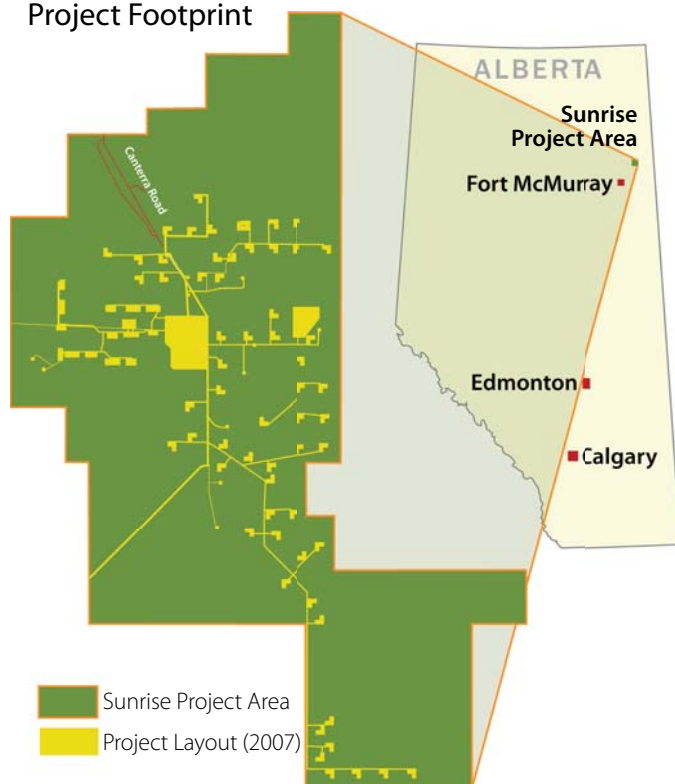
- Constraints mapping which has identified environmentally sensitive areas to help avoid disturbance of aquatics, soils and vegetation, including rare or endangered plants and sensitive wetlands, old growth forest, and cultural and historical sites.
- Strategically placed wildlife crossings will be used to minimize effects of habitat fragmentation.

Husky has led the industry in reclamation certificate application performance for more than seven years. At Sunrise, reclamation work is being undertaken, in line with the Alberta government's requirements to return the affected area to an equivalent land capability condition before development. Husky has already reclaimed areas used in the appraisal stages of the project – and has received certifications of the reclamation as required under Alberta law.

## No Surface Water Requirements

Water will not be drawn from the Athabasca River or other tributaries. Water required for production will be sourced from the non-potable Basal McMurray aquifer below the McMurray bitumen formation and will be minimized by recycling more than 90 percent of the condensed steam used in production. Monitoring of water use and impacts will be carried out on a site-specific and regional basis.

## Project Footprint



## Stakeholder Consultation

Husky Energy is committed to respectful, honest and transparent communication with stakeholders and is required to do so as part of its regulatory approvals and cooperation agreements with Aboriginal stakeholders. Cooperation agreements outline how Husky and Aboriginal communities involved in the project work together.

Husky has been engaging Aboriginal communities and other stakeholders since the early project planning stages. Consultation is carried out through numerous forums including open houses, community events, newsletters and regular meetings with stakeholder groups and Aboriginal advisory committees. Project issues and information received from external stakeholders are recorded in detail and tracked. This ensures continuous collaboration with stakeholders and industry participants on development, regional infrastructure and other emerging issues.

As the project proceeds, Husky will be working to facilitate business and economic benefits for local and Aboriginal groups.



## Contacts



### Project information

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### Business opportunities

[www.huskyenergy.com/businessopportunities](http://www.huskyenergy.com/businessopportunities)

### Husky Energy

[www.huskyenergy.com](http://www.huskyenergy.com)

Phone: 403-298-6111

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### Sources of reference

1. Oil Sands Developers Group
2. Canadian Energy Research Institute, Economic Impacts of the Petroleum Industry in Canada, July 2009.
3. Canadian Association of Petroleum Producers.

### Forward-Looking Statements

Certain statements in this document are forward-looking statements or information (collectively "forward-looking statements"), within the meaning of the applicable securities legislation. The Company hereby provides cautionary statements identifying important factors that could cause actual results to differ materially from those projected in these forward-looking statements. Any statements that express, or involve discussions as to, expectations, beliefs, plans, objectives, assumptions or future events or performance (often, but not always, through the use of words or phrases such as "will likely result," "are expected to," "will continue," "is anticipated," "estimated," "intend," "plan," "projection," "could," "vision," "goals," "objective," "target," "schedules" and "outlook") are not historical facts, are forward-looking and may involve estimates and assumptions and are subject to risks, uncertainties and other factors some of which are beyond the Company's control and difficult to predict. Accordingly, these factors could cause actual results or outcomes to differ materially from those expressed in the forward-looking statements. In particular, forward-looking statements in this document include, but are not limited to: reserves estimates; production plans for the Sunrise Energy Project; development plans for the Sunrise Energy Project, including implementation of SAGD and other emerging technologies and techniques, water use and treatment, land disturbance, CO2 sequestration and stakeholder consultation; predicted impact the Sunrise Energy Project will have on the economies of Alberta and Ohio; and the planned upgrade to the Toledo Refinery.

Although the Company believes that the expectations reflected by the forward-looking statements presented in this document are reasonable, the Company's forward-looking statements have been based on assumptions and factors concerning future events that may prove to be inaccurate. Those assumptions and factors are based on information currently available to the Company about itself and the businesses in which it operates. Information used in developing forward-looking statements has been acquired from various sources including third party consultants, suppliers, regulators and other sources.

The Company's Annual Information Form filed with securities regulatory authorities (accessible through the SEDAR website [www.sedar.com](http://www.sedar.com) and the EDGAR website [www.sec.gov](http://www.sec.gov)) describes the risks, material assumptions and other factors that could influence actual results and are incorporated herein by reference.

Any forward-looking statement speaks only as of the date on which such statement is made, and, except as required by applicable law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for management to predict all of such factors and to assess in advance the impact of each such factor on the Company's business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement.

### Disclosure of Oil and Gas Reserves and Other Oil and Gas Information

The Company's disclosure of oil and gas reserves and other information about its oil and gas activities has been made based in reliance on an exemption granted by Canadian Securities Administrators. The exemption permits the Company to make these disclosures in accordance with U.S. requirements relating to the disclosure of oil and gas reserves and other information. These requirements and, consequently, the information presented may differ from Canadian requirements under National Instrument 51-101, "Standards of Disclosure for Oil and Gas Activities." The reserves estimates and related disclosures presented in this document have been prepared in accordance with the definitions in Regulation S-X and the disclosure requirements in Regulation S-K prescribed by the United States Securities and Exchange Commission. Please refer to "Disclosure of Exemption under National Instrument 51-101" in the Annual Information Form for the year ended December 31, 2009 filed with securities regulatory authorities for further information.

The Company has disclosed possible reserves in this document. Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. It is unlikely that the quantities actually recovered will exceed the sum of the proved plus probable plus possible reserves. There is at least a 10% probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible reserves.