

Key Sustainability Challenges

Syncrude has embarked on a bold plan of growth that provides great potential for the company, its owners, employees and the community. However, this plan will not be realized unless it can be shown to be sustainable from financial, economic, social and environmental perspectives. Here, we outline our key sustainability challenges and the work underway to address them.



Operational Excellence

- ongoing improvements through reliability maintenance program
- strategic capital investments
- R&D to solve operations issues



Operating Costs and Investor Returns

- capture volume efficiencies through Syncrude 21 expansion program
- establish "best-in-class" cost target for business units, and plans to achieve these
- increase product margin through product upgrading strategy
- increase energy efficiency by reducing thermal inputs
- study alternate fuel options to natural gas
- produce new products from waste materials
- reduce oil sand haul distances
- enhance bitumen extraction and froth treatment processes
- extend wear life of materials
- increase labour productivity



Health and Safety Performance

- instill safety culture among newer workers and construction trades
- manage issues associated with an aging workforce
- encourage sustainable improvements in the regional health care system
- implement new EHS management system
- sponsor community health and safety initiatives



Environmental Footprint

- increase crude oil yield from oil sand
- improve tailings disposal techniques; new CANMET oil sands tailings research facility to open in 2004
- increase pace of land reclamation
- implement integrated land management initiatives among resource industry (more information: www.acr-alberta.com)

Research and Development – A Strategic Asset

Syncrude believes knowledge is the foundation upon which we move forward and, accordingly, is consistently among Canada's top 50 investors in research and development. Our research department has been

contributing to our success for 40 years now, and holds 29 active Canadian and U.S. Patents for key technologies used at Syncrude and throughout the oil sands industry. The research group is also responsible for ongoing work to make incremental improvements in existing technologies that enable better economic and environmental performance. Our areas of research focus

include: Tailings and Water; Geology; Equipment and Process Development; Advanced Materials; Information Technology; and Reclamation. Syncrude researchers also maintain extensive ties with universities and research institutes in their ongoing quest for technology solutions that enable sustainable development. For more information: www.syncrude.com



Air Emissions

- implement flue gas desulphurization technology (2006/2009)
- design higher efficiency diesel engines
- reduce flaring
- increase energy efficiency
- study alternative fuels
- increase crude oil yield from oil sand
- improve naphtha recovery
- reduce oil sand haul distances
- reduce tank venting
- improve product quality to reduce downstream emissions



Water Use

- increase crude oil yield from oil sand
- increase water recycle in production processes (now 75 per cent)



Support for Aboriginal and Community Stakeholders

- continue ongoing direct and multi-party consultation
- share long-term benefits through formal agreements
- support community investments
- encourage volunteer efforts by Syncrude leaders and employees
- support management of social and infrastructure issues
- continue local and regional procurement efforts

Sourcing and Developing Skilled Human Resources

- continue Syncrude's development programs with accredited education and training providers (more information: www.syncrude.com)
- continue with 'employer of choice' initiatives

Charting a Sustainability Course

Syncrude is a leading contributor to a number of national initiatives aimed at promoting and encouraging sustainability among the Canadian industry. This includes the Mining Association of Canada's *Towards Sustainable Mining (TSM)* strategy (www.mining.ca), the Canadian Association of Petroleum Producers' *Stewardship* initiative (www.capp.ca) and the Alberta Chamber of Resources *Oil Sands Technology Roadmap* (www.acr-alberta.com). These initiatives outline directions for meeting the economic and social needs of our stakeholders while providing a forum where resource sector companies can share their experiences and lessons learned.