

18.0 Project Economic Evaluation

18.1 CORPORATE OBJECTIVES

JACOS is developing the long-term potential of oil sands leases 58 and 70 in the Hangingstone area of northern Alberta. The Expansion Project is a key component of JACOS' vision to provide a cost-effective, long-term and stable hydrocarbon supply to world-wide markets. JACOS intends to:

- generate positive returns for local economies and develop sustainable ways to create benefits for its neighbouring communities
- meet all regulatory requirements applicable to the development and operation of the proposed facility
- demonstrate good stewardship for natural resources and minimize harmful impacts on the environment
- construct an energy-efficient facility that will operate successfully for 25 years (project life may vary depending on the actual length of time for well depletion)

The Socio-Economic Impact Assessment (SEIA) (see Volume 2, Part C, Section 20) analyzes key issues such as effects on population, housing, municipal finances and infrastructure, social infrastructure and transportation, and traditional land use and culture. This section provides details on economic and fiscal effects, the resource base used for the economic analysis, capital cost estimates (initial and sustaining), operating cost estimates, fiscal parameters and energy commodity price assumptions.

18.2 RESOURCE BASE

The development plan for the Expansion Project is based on extensive resource delineation and research conducted at the Demonstration Project. It will support the development of a 5560 m³/d (35 000 bpd) SAGD project for 25 years. The estimated recoverable bitumen reserves in the Project Area are about 35 million m³ (about 220 million barrels).

18.3 CAPITAL COSTS

The initial capital cost for the Expansion Project is estimated as \$1.2 billion and includes:

- a central processing facility (CPF) capable of producing 35 000 bpd of bitumen
- initial development of 10 wellpads and 61 well pairs with associated field facilities and pipeline systems (steam injection, multi-phase production and off-gas)
- pipelines to supply source water to the CPF and transport salt water to disposal wells
- associated camps and lay-down storage areas
- all-weather roads connecting the CPF to Highway 63 and various wellpads

- infrastructure expansion to the site including power transmission, diluent and diluted bitumen pipelines by other parties

Once operational, the Expansion Project will incur ongoing drilling and other sustaining capital costs to maintain full utilization of processing capacity. Sustaining capital outlays are estimated to be \$1 billion, resulting in a total capital cost of \$2.2 billion during its entire development life from initial engineering design and construction through its full operational life.

18.4 OPERATING COSTS

JACOS has developed a robust operating cost model based on more than ten years of experience operating the Demonstration Project. The major annual operating cost components considered are:

- fuel gas – \$130 million (based on an average gas price of \$7.23/GJ)
- labour – \$14 million
- power – \$12 million
- chemicals – \$9 million
- maintenance – \$4 million
- other fixed – \$16 million

The total operating cost for the Expansion Project will average \$185 million per year (2009 dollars) for the project life.

18.5 FISCAL PARAMETERS

18.5.1 Royalties

The Project will be subject to royalties under the Alberta Government royalty framework. The royalty payment estimate, however, is subject to uncertainty regarding future values of key variables in the provincial calculation formula. The following are assumed:

- long-term crude bitumen prices are based on \$85/bbl West Texas Intermediate (WTI)
- the 2008 Alberta government royalty framework applies over the project life

Under these assumptions, the Expansion Project is estimated to pay a total of \$2.41 billion (\$inflated) over its 25-year operating life. On a present value basis, assuming an 8% discount rate, the value of the royalty payments is estimated at \$570 million.

18.5.2 Taxes

JACOS will also be subject to corporate tax payments. Assuming the present tax framework applies over the Expansion Project's 25-year operating life, provincial corporate tax payments are estimated to total \$360 million (net present value \$90 million) with federal corporate tax payments estimated at \$530 (net present value \$135 million).

18.6 ENERGY AND COMMODITY PRICE ASSUMPTIONS

As discussed above, the crude bitumen price used for the economic evaluation is connected to a long-term crude price of \$85/bbl WTI. The related natural gas long-term price forecast is \$7.23/GJ.