

Building a Financial Model

For an Oil Sands Project

Summary

Many professionals build models to assess the impact and feasibility of undertaking new projects. This course focuses on the skills required to create an interactive financial model to help decide whether an oil & gas company should develop an oil sands deposit. Issues related to both mining and in situ projects will be discussed.

The course material includes model design, logic, construction, financial concepts and accounting treatment.

Various intermediate Excel tools along with helpful keyboard shortcuts will also be covered throughout the course.



Prerequisites

Participants should have a basic working knowledge of Excel and the oil sands sector prior to taking this course.



Timing

This course requires 8 – 16 hours, depending on the amount of material to be covered.

Learning Topics

1. Design and Structure a Financial Model

- ✓ Design a clear and logical financial model
- ✓ Discuss the need for a model to serve as a marketing tool
- ✓ Create clearly defined inputs and assumptions sections

2. Build Scenarios and Financial Forecasts

- ✓ Use switches to create effective scenarios and value drivers
- ✓ Forecast and build-up the project's revenues and expenses
- ✓ Construct all necessary schedules, including:
 - Oil sands pricing fundamentals (includes heavy oil differentials, bitumen pricing methodology and transportation differentials)
 - Production profile (includes ramp-up, downtime and steam oil ratios for in situ projects)
 - Natural gas and non-gas operating costs
 - Building and maintenance capital costs
 - Reclamation and abandonment costs
 - Royalties (pre and post payout calculations under the Alberta oil sands royalty regime)
 - Income tax (includes specific oil & gas taxation and available for use rules)
- ✓ Develop a cash flow projection for the project

3. Evaluate the Project

- ✓ Incorporate a schedule to evaluate project returns:
 - Net Present Value ("NPV")
 - Internal Rate of Return ("IRR")
 - Payback and Discounted Payback periods
- ✓ Build a strong summary page to display the results
- ✓ Use various sensitivity tools to sensitize the project's returns
- ✓ Conditionally format output tables to highlight specified results
- ✓ Analyze the impact of building an upgrader or selling diluted bitumen directly to refiners