

OBJECTIVES OF THE STUDY

Clearly state the principal objectives of the Scoping Study, encompassing the following:

- potential value proposition of the new or expanded business opportunity
- general features of the opportunity
- range of potential cases to be studied in the next phase
- key business drivers and corporate strategic fit for the opportunity
- potential fatal flaws which may prevent the successful execution and operation of the project
- major risks in executing and operating the project
- order and magnitude of costs of the opportunity (both capital and operating)
- technical issues needing further investigation, such as geological drilling or testwork
- costs and time to undertake further development work to reach the stage of completion of a Prefeasibility Study
- work plan resources, personnel and services required to undertake further work on the opportunity
- delivery of a Scoping Study Report in accordance with these standards.

Where the study has not been able to achieve any of these objectives, state the reason.

1. INVESTMENT EVALUATIONS

The investment evaluation is crucial to the investment decision. It is therefore very important that the study team develops robust financial models to support the investment decision.

The key principles to performing the investment evaluation are as follows:

- When developing an investment evaluation, it must be recognised that Enthalpy's objective is to maximise shareholder value by investing in sustainable and credible investments.
- The investment decision must be considered separately from the financing decision. How the corporation decides to fund the investment is **not** a capital asset acquisition or development decision.
- Enthalpy's primary measure for investment decisions is net present value (NPV). Internal rate of return (IRR) is the secondary measure.
- The source of all input data for financial evaluation purposes must be referenced to a reliable definable source.
- The models used to develop the investment evaluation must be prepared by a qualified person, with experience appropriate to the complexity of the model and analysis required.
- All investment evaluations require the use of experience and judgment when assessing assumptions and the probability of outcomes. The development of the evaluation is not formulaic nor repeatable modelling. Each investment evaluation deserves to be uniquely considered.
- The investment evaluation must be developed to the appropriate level of detail relevant to the investment's phase of development (ie Scoping, Prefeasibility or Feasibility Study). Refer to CIS_MS_001, CIS_MS_002 and CIS_MS_003 for the level of detail required at each study phase.
- The investment evaluation must be based on an assessment of the information available, the possible outcomes and their likelihood, to give a "realistic estimate".

Refer to the **Knowledge Portal** for additional background on these matters.

2. PREPARING THE INVESTMENT EVALUATION

The financial model forms the basis for the investment evaluation and the resultant investment decision. It is therefore important for the model to be prepared in accordance with best practice modelling techniques.

The financial model used in the investment evaluation must be included in Section 23 Financial Analysis of the study report, with the results presented in text as a summary.

The financial model must be prepared in accordance with the objectives of each study phase, as follows:

- Scoping Study - a simple financial model must be constructed, which uses the major physical and financial parameters determined for the project under review, the financial model must calculate the:
 - project cash flows on an annual basis
 - net present value (NPV) and internal rate of return (IRR) for the project's cash flow
 - unit costs of production for the primary product.
- Prefeasibility Study - a detailed financial model must be constructed, which uses detailed physical and financial parameters determined for each case or scenario for the project under review, the financial model must calculate the:
 - project cash flows on an annual basis
 - NPV and IRR for project cash flows
 - unit costs of production for the products
 - other relevant project physical and cost measures.

The NPV of the project must be presented in US dollars, and the currency of the corporation and country of the project (if needed).

2.4 Calculation of NPV

The discount rate used to calculate the NPV must be obtained from Enthalpy's treasury function after review and approval by the Chief Financial Officer. The rate must be real and inclusive of any country risk premium.

The NPV must reflect the post tax value and, as noted above, it must be presented in both US dollars, and the currency of the corporation and country of the project (if needed).

2.5 Data and Assumptions

The data and assumptions built into the model are the primary determinate of the reliability and accuracy of the results. If the data and assumptions applied to the model are flawed, the model will give an unreliable answer, which could result in the incorrect allocation of resources.

The financial model comprises:

- the capital cost estimate – sourced from Section 18 Capital Costs of the study report
- the operating cost estimate – sourced from Section 19 Operating Costs of the study report
- the revenue forecasts documented in Section 20 Marketing of the study report
- forecast financial data and assumptions, sourced from Enthalpy's treasury function.

The study report must reference the source of all data and assumptions applied to the financial model.

Refer to the **Knowledge Portal** for additional material in regards to this section.

2.6 Scenario Analysis

The financial model requires an analysis of the probability of a number of assumptions and events, and will require the assessment of various scenarios.

The scenario analysis involves reviewing each assumption and creating financial models showing:

- the most likely case – this is the mean or midpoint outcome ie the P₅₀ forecast
- the best case – assessing the assumptions and calculating the NPV based on the achievement of the optimal (or best) case (P₁₀ or P₂₀ probabilities)
- the minimum NPV – assessing the assumptions and calculating the NPV assuming the most pessimistic view of each assumption (worst case P₈₀ or P₉₀)
- two intermediate cases to provide mid range estimates, representing halfway between the two extremes.

This analysis provides the full spectrum of results and allows Enthalpy to determine whether a positive NPV would still be achieved if the worst case scenario eventuated, even if sub-economic in nature.

Based on the results of the scenario analysis, the P₅₀ or median estimate must also be calculated in detail and the results evaluated. The P₅₀ estimate is the key number presented in the study report and on which the recommendation is made to invest or otherwise.

2.7 Option Analysis

Individual financial models must be prepared for each option assessed during a study. During the Prefeasibility Study, this will require the assessment of a minimum of three options.

The options must always include a comparison against the “do nothing” case – an assessment of the cost of not investing in the project.

Where there is an option for future expansion, it is excluded from the initial investment decision. The financial model must reflect the “standalone” opportunity. The initial investment must be decided separately from any future investment that is not currently under consideration, uncertain and dependent on the initial investment.