Cassels

National Instrument 43-101: Part 4 - What Issuers Need to Know About Economic Analysis

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Completing an economic analysis on the viability of mineral reserves and mineral resources is very important to exploration, development and producing issuers. Economic analysis is the key driver in determining how to best proceed with a project and an important tool for financing a project. Economic analysis is performed with varying degrees of confidence depending on the stage of the project.

A “preliminary economic assessment” or “PEA” is typically the first stage of economic analysis and the accuracy level is the lowest. National Instrument 43-101 defines a PEA as “a study, other than a pre-feasibility study or feasibility study, which includes an economic analysis of the potential viability of mineral resources.” As a result, many simple disclosures of economic analyses not from a pre-feasibility study or feasibility study are considered by regulators to be PEAs.

Following a PEA, an issuer will usually produce a more comprehensive and accurate study called a “pre-feasibility study” or “PFS.” Finally, if warranted issuers will complete the most comprehensive study, a “feasibility study.” A feasibility study is typically meant to serve as the basis for a final decision by an issuer and/or financial institution to proceed with, or finance, the development of a project.

Given the importance of economic analysis, issuers should be aware of the concerns of regulators when conducting and disclosing an economic analysis. Such disclosures are particularly problematic if:

- The disclosure triggers a requirement to produce and file a technical report by making statements that include economic analyses that are not backed up by a technical report and is either first time disclosure of a PEA or is a material change to a previously disclosed PEA.
- Issuers overlook the inclusion of mandated cautionary language to alert investors that a PEA is a lower confidence study that often includes, or is based upon, inferred mineral resources.
- Issuers overstate the confidence of a PEA by stating that some or all of the components of the PEA are done at the level of a PFS.
- Issuers do not sufficiently disclose the economic analysis, including key parameters and assumptions, for their mineral project in their technical report.

Types of Studies Containing Economic Analyses

There are generally three commonly known mining studies that involve an economic analysis of the viability of mineral reserves and mineral resources. These studies, in order of confidence level from lowest to highest, are:

- A PEA, which, as noted above, is a study, other than a pre-feasibility or feasibility study, that includes an economic analysis of the potential viability of mineral resources. A PEA is sometimes also referred to as a "scoping study."
- A PFS is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the "modifying factors" (considerations used to convert mineral resources to mineral reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors) and the evaluation of any other relevant factors which are sufficient for a qualified person, acting reasonably, to determine if all or part of the mineral resource may be converted to a mineral reserve at the time of reporting. The completion of a PFS is the minimum prerequisite for the conversion of mineral resources to mineral reserves.
- A feasibility study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable modifying factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate, at the time of reporting, that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project.

As a result of the importance of these studies to the issuer and investors, regulators are very interested in ensuring issuers properly disclose such studies to the public and that the studies follow all applicable guidelines.

Inadvertent PEAs

Issuers will often make statements about a mineral project that does not have mineral reserves which suggest that an economic analysis of some nature has been conducted. If the project does not have a mineral reserve estimate and there is disclosure of economics of any sort, the regulator strict view is that this is a PEA and a technical report may be triggered. These statements could include anticipated production rates, capital or operating costs, mine life or projected cash flows of a project. A PEA need not be a formal study.

Examples of disclosure that could be seen to be a PEA and trigger a technical report include:

> "We will likely produce 200,000 oz. silver/month in 2014"
> "Capital costs will be in the range of $50 - $100 million"
> "Mine life will be 10 – 11 years"
> "We expect to generate $20 million in revenue"
> "IRR of approximately 30%"

Therefore, it is important that issuers monitor their public disclosure of the economics of their projects in press releases, investor presentations, social media, websites or other continuous disclosure documents so as to not inadvertently trigger a technical report by making such statements if there is no technical report to back up such statements.

PEAs and Cautionary Language

Regulators are particularly concerned with PEAs because they are lower confidence studies that typically contain results of an economic analysis that includes, or is based upon, inferred mineral resources. Where this occurs, issuers need to remember that their disclosure must contain the mandated cautionary language, specifically:

- statements of "equal prominence" that:
    - the preliminary economic assessment is preliminary in nature, that it includes mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would allow them to be categorized as mineral reserves, and that there is no certainty that the preliminary economic assessment will be realized, and
    - mineral resources that are not mineral reserves do not have demonstrated economic viability
- a statement regarding the basis for the PEA and any qualifications and assumptions made by the qualified person; and
- a statement that describes the impact of the PEA on the results of any feasibility or pre-feasibility study in respect of the subject property.

PEAs vs PFS

A PEA is not a PFS. Consequently, if mineral reserves have been delineated in the study, then a report that an issuer wishes to call a PEA may be more properly a PFS. This is because the completion of a PFS is the minimum prerequisite for the conversion of mineral resources to mineral reserves. This also means that the economic analysis in the PFS cannot include inferred mineral resources. According to regulators, a recurring problem is that issuers have “blurred the lines” between a PEA and a PFS by stating that some or all of the components of the PEA are done at the level of a PFS. The result is that an issuer has effectively produced a PFS but one that includes inferred mineral resources, which is not permitted. A PEA should be a “conceptual study of the potential viability of mineral resources,” so any disclosure that implies that a PEA has demonstrated economic or technical viability would be contrary to NI 43-101 and the definition of PEA.

Regulators recommend that issuers do not:

- describe a study as a PEA unless it clearly falls into the definition of a PEA; or
- compare their PEA or any components of it to the standards of a PFS if the study includes inferred mineral resources.

Regulators may take the position that an issuer is treating the PEA as a PFS if the issuer:

- does not include the above noted cautionary statements with equal prominence each time it discloses the economic analysis of the mineral resources;
- uses the PEA as a basis to justify going directly to a feasibility study or a production decision;
- discloses mining or mineable mineral resources or uses the term "ore," which is essentially treating mineral resources as mineral reserves; or
- otherwise states or implies that economic viability of the mineral resources has been demonstrated.

Issuers should ensure that their disclosure of the results of a PEA is not misleading by providing appropriate context, cautionary statements, and discussion of risks sufficient for the public to understand the importance and limitations of the results of the PEA.

However, issuers also needed to be able to take a step back and re-scope advanced stage projects based on new information or alternative production scenarios. Therefore, a study that includes an economic analysis of the potential viability of mineral resources that is done concurrently with or as part of a PFS or feasibility study is not, in the view of regulators, a PEA if it:

- has the net effect of incorporating Inferred mineral resources into the PFS or feasibility study, even as a sensitivity analysis;
- updates, adds to or modifies a PFS or FS to include more optimistic assumptions and parameters not supported by the original study; or
- is a PFS or feasibility study in all respects except name.

Insufficient Disclosure of the Economic Analysis

Regulators are also concerned that issuers with advanced properties do not sufficiently disclose the economic analysis for their mineral project in their technical reports. NI 43-101 provides that the economic analysis must include a clear statement of, and justification for, the principal assumptions and cash flow forecasts on an annual basis using mineral reserves or mineral resources and an annual production schedule for the life of the project. Technical reports must also include a discussion of net present value, internal rate of return and payback period of capital with imputed or actual interest. Technical reports on advanced properties must provide cash flows on an annual basis and provide an appropriate sensitivity analysis with related impacts on the economic analysis. In addition, technical reports that contain an economic analysis must address the issue of taxes applicable to the mineral project. The impact of taxes and adequate sensitivities, both positive and negative, should be outlined with the economic analysis.

Regulators have observed instances of overly optimistic or highly aggressive assumptions in PEAs, as well as the use of methodologies that diverge significantly from industry best practice and guidelines. Issuers are reminded that forward-looking disclosures should not be made unless the issuer has a reasonable basis for the forward-looking information. Similarly, qualified persons are reminded that professional standards typically require the use of procedures and methods that are consistent with industry best practice and guidelines, and that if significant divergence is necessary, the nature and basis for the divergence should be disclosed. Divergences that are not justified could result in a requirement to revise and re-file a technical report.

Overall, it is very important that issuers take the above considerations into account prior to the public release of an economic analysis to ensure that it does not trip any of the rules or inadvertently trigger a technical report. While the requirements of NI 43-101 may make the disclosure longer and require some additional work, complying with the requirements for making public disclosure of an economic analysis should not pose marketing issues. Compliance is simply a matter of recognizing that an economic analysis is being disclosed and complying with the above noted requirements.
