DRAFT

Conceptual notes for amendments to "Basic Requirements for Scoping Study, Pre-Feasibility and Feasibility Study, and Mining Design for Mineral Deposits and Procedure for Accepting a Feasibility Study", endorsed by decree #74 of Minister of Mineral resources and energy (2012)

Legal provisions governing the regulation about to be amended:

The regulation is grounded on following provisions of the Minerals Law, including:

48.6.1. A mining license holder shall submit following reports to the Government

agency: - commission an authorized organization for a feasibility study on development of the deposit and withing one year after obtaining a mining license;

10.1.7. Competence of state central administrative body in charge of geology and mining: - approve regulations for search, exploration and exploitation of mineral resources and develop & endorse product standards;

Sections of the regulation:

- 1. General
- 2. Definition of terminologies in the regulation
- 3. Scoping study for the mineral deposit
- 4. Pre-feasibility study for mineral deposit
- 5. Feasibility study for mineral deposit
- 6. Mining design (technical drawings) for mineral deposit use
- 7. Storage, use and update of feasibility study
- 8. Acceptance of feasibility study (8 sections altogether).

Goal of the regulation: Paragraph 3, 4 and 5 set forth that it regulates all affairs pertaining to basic requirements, review and acceptance of 4 types of reports/documents. Moreover, its paragraph 1 and 2 in Section "General" indicate that it also sets forth requirements on project implementer and developer and regulates affairs arising between the state administrative body and central state administrative body overseeing the adherence to regulation.

Introduction on the regulation

The regulation was first issued by Minister of Mineral resources and energy back in 2012 as a regulation setting forth scope that relevant stakeholders are subject to implementation under the jurisdiction of central state administrative body. It has been implemented for 8 years; however many challenges came up in relation to its implementation necessitating to re-visit the regulation.

For instance, current regulation sets forth to regulate 4 types of documents; Scoping study for the mineral deposit, Pre-feasibility study for the mineral deposit, Feasibility study for the mineral deposit, and Mine design for the mineral deposit, by setting up requirements as content titles and structure documents,

but it defines in detail processes for developing, discussing and approving of only for feasibility study as a document, thus such single focus fuels contradiction between the regulation name,

its content and goal. Therefore, public refers to this regulation as a regulation for feasibility study.

As stipulated in the regulation, it is considered to review of Feasibility Study for the purpose of implementation and compliance of paragraph 48.6.1 of the Minerals Law "a feasibility study on the development of the deposit within one year of obtaining the mining license" by mining license holder.

However, paragraph 7.3 of the regulation requires that "...project implementers has an obligation to update or renew, and submit for review their feasibility study every 5 years," which is not a requirement stated in the law.

Such requirements add more burden on every license holders for getting of reviewed and accepted of feasibility study by a government agency every 5 years even if the project did not have technical changes, and a long list of license holders waiting for review by Professional Mineral Council has been found as one key perversion caused by the regulation.

In general, it should be considered that feasibility study and similar documents are developed for what purpose and direction; and is there any need of governmental approval; and what practices are exist in foreign countries so that the new or amended regulations sets forth relevant requirement with reasonable rationale and consistent with international benchmark.

Obviously, mineral resources are considered as the public property, owned by state as specified in the Constitution of Mongolia, it is inevitable for governmental organization to receive information on the exploitation use of mineral deposit and control it.

On the other hand, considerable attention must be devoted to determining if it is appropriate to make a decision that government agency finally approves the feasibility study as a document, which contains all aspects related to possession of mineral deposit, economic efficiency and risks analysis. Apparently, government and some government agencies may need to get some necessary main indicators out of technical, economic and ecological indicators from the feasibility study.

Current Minerals Law and other legislations don't contain any clauses requiring government to review and accept feasibility study; this means that the revised regulation will overrule the law.

Therefore when amending current regulation, it is necessary to discuss and decide whether Professional Mineral Council, appointed by central stated administrative body, on mandatory basis should review and accept the feasibility studies or not, if to do so possibility of professional NGOs, on behalf of administrative agency, to review the feasibility studies from the point of methodology should, should clarified and decided.

According to the current regulations, if the project implementer faces significant amount of loss by during use of feasibility study, the state administrative agency representing the government, and its designated Professional Mineral Council that reviewed and accepted the feasibility study, would be held liable or not; this is what the new regulation must address. Likely, one potential option is that new regulation may require that private companies to get their feasibility study assessed by professional organization and state-owned companies to get their feasibility study reviewed and approved by government.

All these complex issues must be addressed in revising the existing regulation.

Ministry of Mining and Heavy Industry addressed to the AMEP regarding revising the regulation. Current regulation serves as the administrative regulation and has been implemented adhering to a principle that all new and existing mining projects develop their updated feasibility study every five years and get reviewed by Professional Mineral Council, appointed by central state administrative agency.

In addition to feasibility study, the regulation sets forth requirements on pre-feasibility study, scoping study and mine design development, but none of these three documents were developed and reviewed during the past 8-year period of the implementation of current regulation.

This single focus on feasibility study might be related to the fact that the regulation sets forth requirements on accepting and storing feasibility study only or just due to a legal provision requiring mining companies must have feasibility study.

1. Key rationale for revisiting the existing regulation

So-called "Regulation for Feasibility Study" and formally known as "Basic Requirements for Scoping Study, Pre-Feasibility and Feasibility Study, and Mining Design for Mineral Deposits and Procedure for Accepting a Feasibility Study", endorsed by decree #74 of Minister of Mineral resources and energy (2012), currently serves as an administrative regulation, without any legal grounds (it must be registered by Ministry of Justice); this is one reason necessitating to re-visit it.

Despite its long name, it is used only for feasibility study's review and acceptance, one of four documents that the regulation sets forth; this is another defect of this regulation.

Also, current system that requires license holders to update their feasibility study every five years, a council appointed by government organization accepts the feasibility studies no matter whether the project is financed from private or public funds, (also accepts project financial and safety risks), first, all those are not set forth in the law, and second, create liability risk for the government agency that accepted feasibility study if the project encounters losses; this must be corrected with the new regulation.

Current regulation requires to develop feasibility study following the structure/topics sets forth in the regulation, but there are no any clear and available methodology/tools to develop contents of these sections as the country lacks standards, technical and economics norms and guidelines for mining projects. This makes it technically impossible to implement the regulation correctly and accurately.

Therefore, based on the implementation of methodology and guidelines developed by professional associations for the development of feasibility study and similar documents, there is a need to be incorporated into the above regulation.

Other reasons to revise existing regulation include that the nature of affairs under current regulation is unclear so stakeholders often encounter difficulties; lack of unified methodologies; incompetency of Council, it's not clear why it's being regulated and etc.

2. Drawbacks in the existing regulation

Key drawback of the regulation, endorsed by decree #74 (2012) of the Minister of Mineral resources and energy was found that it does not have any legal grounds (as mentioned above), it tries to regulate too many processes- from developing key documents for mineral deposit, discussion, requirements on expert/competent person to accepting and storing documents; and it contains 4 types of documents, but implements the regulation on only one.

Also, a comparison of sections outlining content of documents, showed that there were not any details and difference in methodology to be applied, but just a list of topics in order (Annex One. Comparison of content of the documents).

In addition, the regulation includes too small stylized issues in regards to documentation such as design of the coverpage and whom where to write, which are too old-fashioned.

Requirements set forth in the regulation on feasibility studies are not suitable for various types of mineral deposits. For instance, there are many differences, such as different opening scheme for how open pit, underground and geotechnology mines. Actually, it vital to clarify if there is a need of formal review, and more clear purpose of review and acceptance of feasibility study, also the legal status of the council assigned to do review. Also, current regulation does not contain clear duties and responsibilities of parties. And, it is also unclear what methodological requirements are imposed on these types of documents in other countries and what verification procedure they have.

It also does not specify that based on what reserve classification of mineral deposits, feasibility study or similar documents could be developed, which undermines justification for outgoing. The reason is that a feasibility study developed based on a reserve, classification of which is unclear, will be document with no justification.

3. Issues to be incorporated in the new regulation

When revising the regulation, approved by decree #74, two main documents commonly used in modern mining practices, which are related to reserve verification and extraction of mineral deposit, should be confirmed. They are [1] prefeasibility study reserve condition, which is used to determine the the reserves, and reserve condition indicators of mineral deposits; and [2] mining feasibility study.

Content and methodology for these two documents should be developed by professional associations as recommendations and new regulation should set forth that the calculations should be made in the prefeasibility study based on approximate reserves, and in mining feasibility study based on economically efficient reserves.

Also, new regulation must clearly indicate what document would be subject to regulations including involvements of government organization and NGOs; ensure that documents align

with international practices; decide whether feasibility study should be reviewed and accepted or not; clarify the functions and roles of consultants and experts; clarify oversight and responsibilities of document authors; and assigning professional NGOs to develop appropriate methodologies. Clarifying roles and responsibilities of parties are prerequisite and a must be subject to the new regulation.

4. Legal grounds for the regulation

In revisiting current regulation on feasibility study, first of all it must be made to have proper legal grounds by adding a clause in the Minerals Law. In the event that no legal ground is established, it can still be developed in form of technical regulation, issued by the Cabinet, or in form of national standard.

In our current practice, extraction of mineral deposits strictly following the feasibility study calculation could sometimes make it economically unefficient. In this case the new regulation must legally change the existing practice that the license holder and Council that reviewing the feasibility study insist to take provision which makes it economically efficient and drives issuing of documents of unreasonable calculation errors.

In general, legal grounds for new regulation must be made clear, or it may be necessary to provide grounds that are not necessarily set forth by law and can be followed by good practice and recommendations.

5. International practices and their reflections in the new regulation

It is necessary to take into account of the findings of special study on some international best practices of Western countries, including those of Canada and Australia in connection with the revision of the regulation. In these countries, feasibility study, which is similar what we mean in the regulation, is used exclusively for project financing as the economic status of project remains accurate at the time of feasibility study and change as the time elapses. Whilst, prefeasibility study is developed and used as a document with the same purpose of our document which sets the conditional indicators for the reserve estimation and identify the commercial reserves.

Prevailing practices in these countries demonstrate that government does not review feasibility study and other similar documents; it is a concern of investors; but these documents are developed by competent persons certified by professional NGOS and applying methodologies developed by professional NGOs. Therefore, new regulation, considering such best practice and specificity of Mongolia's mining sector, should address these issues to some extent.

In particular, in developing new regulation, it should be taken into account such specific issues no government reviews of feasibility study, and professionals certified by NGO develop the feasibility study and methodologies are introduced as recommendation by professional associations.

Examples of international practices on feasibility study in foreign jurisdictions and comparative introduction of Mongolian and international practices can be seen from a study made by

International mining expert Steve Gemell (Annex 2) and comparative matrix produced by Kirsten Livermore, team leader of AMEP-2 (Annex 3).

6. The scope of the new regulation

In terms of regulatory scope, the license holder should develop conditional feasibility or prefeasibility study, which is used for verification of mineral deposit reserves and have it approved by reserves registration authority. Purpose of this document aims at determining the key indicators used for preparation of reserve estimation report.

This would enable new regulation to address two main documents from existing regulation with more necessity in the mineral resource sector; prefeasibility study, which defines the conditional indicators used for the reserve estimation and mining feasibility study for the extraction of deposit, and reflect their relations in the regulations consistent with the existing legal framework.

Other documents stated in the existing legislation have already been used in the sector without the need of specific regulation.

Also, new regulation must not specify the methodology for developing documents; instead it must encourage using methodologies and tools developed by professional association/NGOs. Unless any major change occurs, these documents must be kept as is without requiring any update or modification; that is what the new regulation should consider.

Moreover, the current system that government agency review and approve the feasibility study should be changed. Offering more clear methodologies and clarifying the stakeholders were key comments from round table meeting and answers of questionnaire so they should be incorporated in the new regulation.

7. Comments from discussions and incorporation of comments

A dedicated discussion on amending the current legislation was organized at the Ministry of Mining and Heavy Industry on 6 November 2019 bringing together the representatives of government, professional associations and companies licensed for developing mining design. Representatives provided the following comments; all agree on the need to revise the regulation; need to have a unified methodology that all feasibility studies are developed; scope and content requirements must be clear; remove sections on occupational safety and environmental performance, which are already set forth in stand alone laws; make transparent and accountable the activity of Professional Mineral Council review and acceptance process; offer various methodologies depending on types of deposits; define the legal status or legitimacy of feasibility study; clarify the legal competence of consulting companies developing feasibility study; and set tariffs for the experts/competent persons (Annex 4). These comments should be taken into account in developing new or renewed regulation.

Also, draft regulation must be discussed by professional organizations and other key stakeholders to get their comments, and each comment should be carefully discussed for incorporation in the regulation.

8. Structure and composition of the revised planned new regulation

In revising the regulation, endorsed by decree #74 of Minister of Mineral Resources and Energy, a.k.a "Regulation for Feasibility Study", key sections of the existing regulation, including General provisions (purpose, function and scope), Terms and definition definition Prefeasibility study or Conditional feasibility study and Mining feasibility study as key documents of revised regulation, General structure and Methodologies should be made as a stand-alone section.

In addition, it is possible to include a section in the regulation that provides requirements on consultants developing feasibility study and other documents and rights for verifying of them. When deemed necessary, some additional sections can be included in the regulation.

New regulation may have Annexes providing tools, methodologies and other necessary aspects.

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