UNFC-2009 specifications and guidelines (Annex V) will greatly help in leveraging its application by various stakeholders. Specification Task Force (Phase One and Two) are complimented for the excellent drafts made available for public comments.

My comments below are specifically in reference to solid minerals.

I. Introduction

Four areas of applications mentioned in the UNFC - 2009 [ECE/ENERGY/85] are:

- 1. International Energy and Mineral Studies
- 2. Government Resource Management
- 3. Industry Business Process
- 4. Financial Reporting

Generic and commodity specifications should be compatible will all the applications above and should aid stakeholders in each of the four specific areas, without any conflict of interests. Commodity specifications indented for use for a particular application should not constrain other applications in any manner.

CRIRSCO specifications for solid minerals are in alignment with the requirements of Industry Business Process and perhaps also for Financial Reporting. The other two application areas - International Energy and Mineral Studies and Government Resource Management - may require consideration of material not included in the CRIRSCO template. CRIRSCO specifications are therefore commodity and application oriented.

While, there should be alignment of UNFC-2009 and CRIRSCO to the specific portion of the materials that are included in the CRIRSCO template, solid mineral specifications are required in UNFC-2009 for the material outside the scope of CRIRSCO. Apart from International Energy and Mineral Studies and Government Resource Management applications, commodity specifications for material outside the scope of CRIRSCO will be useful for companies in internal resources management. Such solid mineral specifications will ensure clear and consistent application of UNFC-2009 by all stakeholders.

II. Environmental and social considerations

Category 'E' is defined as economic and social viability. UNFC-2009 descriptions can be apparently viewed as relegating lesser importance to social issues, especially 'social licensing'. Social licensing is based on beliefs, perceptions and opinions held by local community and other stakeholders. Social license is intangible as efforts to measure beliefs and perceptions are still in its infancy.

Description of the E axis could be attempted with the following preliminary mapping to social license progression:

- E1 Social approval and trust
- E2 Social acceptance and tolerance

III Commodity-specific specifications and the relationship with other resource classification system

UNFC-2009 has applications in four specific areas as mentioned above in Section I. Same commodities could be treated differently in the four applications. Hence, CRIRSCO specifications should not be commodity specific, but commodity and application specific. This will ensure that specification of an aligned system is for one or more specific application(s) and will not in any manner prejudice the use of UNFC-2009 for that particular commodity in other applications. It should be made clear in specifications that while using CRIRSCO, it is basically intended for Corporate business process.

Specification for solid minerals for reporting "Exploration Results" vary significantly for different applications. Resource estimates of "Undiscovered Resources" are usually made in applications involving International Energy and Mineral Studies and Government Resource Management. Such estimates are also possible for internal company resources management. It should be clarified in the UNFC-2009 generic specifications that CRIRSCO specifications are not applicable for applications other than for Company Public Reporting.

IV National resource reporting

For International Energy and Mineral Studies and Government Resource Management, 'Mineral Reserves and 'Mineral Resources' may be aggregated for a development project. A Commercial Project - On Production may have 'Mineral Reserves and 'Mineral Resources'. For International Energy and Mineral Studies and Government Resource Management the project will be classified as Commercial Project - On Production if guidelines of Annex V of the UNFC-2009 Specifications are preferably satisfied.

In addition to aggregation of reported or published corporate estimates, national reporting can in some cases include current and historical non-CRIRSCO compliant resources. In this case the reporting organization can convert all the CRIRSCO and non-CRIRSCO resources to UNFC-2009 using an appropriate methodology and aggregate them.

VI Generic specifications

B. Bridging document

Bridging document in some cases may be relevant only for specific commodity and application(s) as commented in Sec III. If for example UNFC-2009 is used directly for national reporting, an appropriate methodology can be used confirming to UNFC-2009 description, specifications and guidelines.

C. Effective date

Effective date is important for all the four applications of UNFC-2009. Use of effective date will be useful to discriminate current and historical estimates, which are sometimes considered in national reporting and International Energy Studies.

E. Reference point

Reference point may be different for some commodities in current and historical reports. Some difference can also crop up when conventional and unconventional resources of the same commodity are reported. For consistency of application of UNFC-2009, Reference Point has to be provided.

M. Evaluator qualifications

For certain applications, for example National resource reporting, the evaluation is attributed to the organization, which may have deferent criteria for evaluator qualifications, hence the requirement of a 'Competent person' as in CRIRSCO may not applicable.

R. Classification of quantities associated with Exploration Projects

Labels are suggested for the three sub-classes:

- F3.1 Prospective resources
- F3.2 Exploration resources
- F3.3 Potential regional resources

Annex III - Bridging document between the CRIRSCO Template and UNFC-2009

Suggestion to include:

6. Use of CRIRSCO specifications is primarily intended for corporate business process, and this will not limit in any way the use of UNFC-2009 for other applications.

Suggestion to add:

- 7. Specifications may not be applicable as such for material beyond the classes explicitly defined in the Template.
- 10. In UNFC-2009 all mineral resources are potentially recoverable. Hence while transferring CRIRSCO "Mineral Resources", which are in situ, to "Potentially Commercial Projects" appropriate deductions of mining and processing/recovery losses should be applied.

Annex V - Guidelines on the use of project maturity to sub-classify projects

6. On Production - This sub-class can also include mining projects which are closed down (for example due to market conditions), but satisfy all conditions to be readily brought back into operation.

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