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Stakeholder Requirements for Specifications for the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009

Summary Report prepared by the Specifications Task Force

Summary

A revised text of the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources (UNFC-2009) was approved by the Committee on Sustainable Energy at its eighteenth session. As discussed at the seventh session of the Ad Hoc Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology – now the Expert Group on Resource Classification – a Task Force was established and charged with contacting a representative range of stakeholders in each of the four key areas of application of UNFC-2009 and requesting their views on what specifications, if any, they considered to be necessary in order that UNFC-2009 would adequately serve their needs. The four areas of application are: International Energy and Minerals Studies; Government Resources Management; Industry Business Processes; and, Financial Reporting.

The full version of this Report was presented in draft form to the first session of the Expert Group on Resource Classification as the basis on which it considered how best to accommodate the stated needs of stakeholders for specifications to be provided for UNFC-2009. A final version of the full report was subsequently supplied to all members of the Expert Group on Resource Classification. This version represents a summary of the final report.

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I. Introduction

1. This report summarizes the work of the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources (UNFC) Specifications Task Force (STF) with respect to documenting the stated need of stakeholders for specifications to be provided for the UNFC of 2009 (UNFC-2009). The STF communicated its position on this report to the first session of the Expert Group on Resource Classification, which was previously (until end-2009) known as the Ad Hoc Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology (Ad Hoc Group of Experts).
2. The members of the STF are listed in the Annex.

II. Background

3. In 2004, the United Nations Economic and Social Council (ECOSOC) in its resolution 2004/233 invited the Member States of the United Nations, international organizations and the regional commissions to consider taking appropriate measures for ensuring worldwide application of the UNFC.
4. In 2007, the Ad Hoc Group of Experts decided to map certain classification systems to the UNFC of 2004 (UNFC-2004) and established a Task Force (UNFC Mapping Task Force (MTF)) for this purpose. The report of the MTF (ECE ENERGY SERIES No. 33 and ECE/ENERGY/71), recommended that certain changes be made to the category definitions of the UNFC in order to achieve alignment between the UNFC, the CRIRSCO Template developed by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) and the Petroleum Resources Management System (SPE-PRMS) developed by the Society of Petroleum Engineers (SPE), World Petroleum Council (WPC), American Association of Petroleum Geologists (AAPG) and Society of Petroleum Evaluation Engineers (SPEE). The MTF “proposed a simplification of the current definitions, to the extent possible, to a point where they incorporate the necessary principles for all commodities, without material deviation from their current meaning, and excluded detailed and/or commodity-specific information that could be captured in commodity-specific guidelines”.
5. The Ad Hoc Group of Experts then requested the Bureau to prepare any proposed changes to the UNFC through a due and transparent process, including by posting a draft text on the ECE website for public comment over a sufficient period of time; further requested that any proposals, comments and/or recommendations to be submitted to the Extended Bureau of the Committee on Sustainable Energy should be published on the ECE website; and requested the Bureau to define an appropriate timeline, taking into consideration the guidance of the Director of the Economic Commission for Europe (ECE) Sustainable Energy Division (ECE/ENERGY/GE.3/2008/2).
6. The Bureau of the Ad Hoc Group of Experts then nominated the UNFC Revision Task Force (RTF) which developed and proposed a revised text of the UNFC (UNFC-2009), which was presented at the seventh session of the Ad Hoc Group of Experts and subsequently approved by the Committee on Sustainable Energy at its eighteenth session. The RTF also prepared a report that discussed the comments received on the initial published draft text and provided its reasoning for recommending certain changes, but not others (ECE/ENERGY/GE.3/2009/6).

7. Concurrent with the development of the revised text of the UNFC, the RTF was mandated to prepare a discussion paper on “The Need and/or Desirability to Develop Specifications and Guidelines for UNFC-2009” (ECE/ENERGY/GE.3/2009/7). The paper identified several options for ways of addressing this issue, including one of not providing any specifications or guidelines for UNFC-2009. The options were discussed at the seventh session of the Ad Hoc Group of Experts. One of the recommendations of the RTF was that before attempting to agree on the most appropriate option, it would be beneficial to seek the views of a broad range of stakeholders representing each of the four key areas of application of UNFC-2009 and requesting their views on what specifications, if any, they considered to be necessary in order that UNFC-2009 would adequately serve their needs. The four areas of application are: International Energy and Minerals Studies; Government Resources Management; Industry Business Processes; and, Financial Reporting.

8. The RTF report strongly supported the view that it would not be constructive (or practical) for the Expert Group on Resource Classification to consider developing comprehensive new specifications and guidelines for UNFC-2009 where detailed commodity-specific specifications and guidelines already exist within the classification systems of the CRIRSCO Template and SPE-PRMS.

9. The current terms of reference of the Expert Group on Resource Classification confirms that the provision of specifications and guidelines for UNFC-2009 shall be undertaken through cooperation with the SPE for petroleum and CRIRSCO for minerals, recognizing that it is useful that they be tailored to meet, to the extent possible, the needs of applications pertaining to energy studies, resources management functions, corporate business processes and financial reporting standards. It should be noted that a Memorandum of Understanding exists between ECE and SPE (signed in 2006) whereby it was agreed that SPE’s Oil and Gas Reserves Committee would, inter alia, develop *Specifications and Guidelines* for the application of the UNFC, and the SPE/WPC/AAPG definitions.

10. This report summarizes the general considerations of the STF.

III. The process

11. The members of the STF were sub-divided into four small “working groups” each representing one of the areas of application of UNFC-2009. Where possible, members were assigned to the group that reflected their own personal background. In all cases, there was at least one member from the minerals sector and one from the petroleum sector in each group.

12. Wherever possible, appropriate individuals were identified in key organizations in each of the four “stakeholder groups” using the wide experience of the STF members, with extensive cross-collaboration between the working groups in order to share contact names that were considered to be potentially useful to the other groups. Efforts were made to ensure that a broad geographic spread of contacts was established. Contact was made by a variety of methods as appropriate, including by phone, email, personal letter and meetings.

13. Contacts were generally on an informal basis, since it was recognized that the most useful feedback would be based on the personal experiences of individuals dealing with reserve/resource data in their daily work. Consequently, it was considered to be inappropriate to publicly attribute specific comments to the individual(s) who raised the issue.

IV. Specific issues

14. In the list below, the comments received have been consolidated and summarized in order to identify each specific issue. The issues have not been sub-divided into the four areas of application of UNFC-2009, or between minerals and petroleum, since many comments were applicable to more than one of the four areas of application of UNFC-2009 or were generic in nature.

15. The first nine issues that are discussed below were identified by the RTF and highlighted in its report (ECE/ENERGY/GE.3/2009/6) as being more appropriate for consideration as specifications and/or guidelines rather than incorporation in UNFC-2009 itself. A further issue that was identified in the RTF report was the need for a glossary of terms; since such a glossary would ideally be part of any document containing specifications, it is also included here. The remaining issues reflect feedback from stakeholders through the STF process.

16. The issues identified were as follows:

- (a) Expand G4 to account for uncertainty;
- (b) Distinction between developed and undeveloped;
- (c) Definition of “total in place” using E categories;
- (d) More detailed definition of G categories;
- (e) Subjective nature of E axis categories;
- (f) Assessments made for different purposes;
- (g) Reference to Class 113;
- (h) Distinction between F4 and potentially commercial;
- (i) Definition of non-sales production;
- (j) Glossary of terms;
- (k) Requirement for aggregation to national level;
- (l) Confusion between reserves and resources;
- (m) Confusion between in-situ and recoverable quantities;
- (n) Comprehensive, consistent and coherent reporting;
- (o) Documentation of assumptions;
- (p) Illustration of all resource categories in an accumulation/basin/project;
- (q) Probability levels for allocation to appropriate classes;
- (r) Clarity in reporting (e.g. gross/net interest);
- (s) Inadequacy of SPE-PRMS specifications, leading to lack of comparability;
- (t) Need to reflect three key categories (reserves, discovered resources and undiscovered resources) ;
- (u) Add labels (“unit name”) for 111, etc;
- (v) Linkage between period of no activity and economic category;
- (w) General guidelines required for UNFC, but practical mapping guidelines developed by each country between its system and UNFC;

- (x) Set fundamental reporting guidelines (not user-specific);
- (y) Canadian Oil and Gas Evaluation Handbook (COGEH) should be foundation (for petroleum guidelines);
- (z) Use of plain language to the extent possible, minimising technical terminology and detail;
- (aa) Supported by technical report and involvement of a qualified person;
- (bb) Resource valuation;
- (cc) Commodity-specific guidelines;
- (dd) Cross-referencing economic/social viability with G axis;
- (ee) More granulation to meet individual needs and resource types;
- (ff) Classification of undiscovered resources;
- (gg) Proved and probable reserves based on forecast costs;
- (hh) Classification based on “risk” profiles;
- (ii) Good guidelines required for unbiased estimates;
- (jj) Management and board responsibility;
- (kk) Governance and administrative system for guidelines;
- (ll) Transparency of estimation methods;
- (mm) Measurement and reporting issues;
- (nn) Specifications and guidelines for “unconventional” petroleum resources;
- (oo) Distinction between “conventional” and “unconventional” petroleum resources;
- (pp) Effective date of estimation;
- (qq) Reference point;
- (rr) Using industry best practice;
- (ss) Clarity on economic assumptions for proved reserves;
- (tt) Benefit in globally-consistent terminology and definitions;
- (uu) Reconciliation of incremental and cumulative deterministic methods;
- (vv) Tracking of reasons for project delays;
- (ww) Need to clarify timing issues;
- (xx) Further granularity for “Additional Quantities in Place”; and
- (yy) Undiscovered and unconventional uranium and thorium resources.

V. Discussion

17. A key goal of UNFC-2009 is to provide a high-level generic classification system that facilitates global communications among all stakeholders. This requires, as a minimum, that it is able to ensure a reasonable level of comparability between estimates of resource quantities that are classified by the same code or class when applying UNFC-2009, regardless of the commodity. Comparability requires specifications and guidelines.

However, there is no intention to generate an independent (or different) set of commodity-specific specifications and guidelines from those already embodied in widely-accepted systems such as the CRIRSCO Template (as reflected in the family of codes that conform to it) and SPE-PRMS.

18. In the RTF report on specifications and guidelines (ECE/ENERGY/GE.3/2009/7), four options for the provision of specifications and guidelines were discussed. The first option, that no specifications and guidelines are provided for UNFC-2009, would clearly fail to address the issue of comparability as it would rely wholly on the specifications and guidelines that applied to the system being mapped to UNFC-2009. As highlighted in the RTF report, assigning estimates that are based on different specifications to the same UNFC code would completely undermine its usefulness as an umbrella system. The other three options presented in the RTF report were all variants of an alternative approach, whereby specifications and guidelines at a commodity-specific level were provided through some form of linkage between the CRIRSCO Template and UNFC-2009 for minerals and between SPE-PRMS and UNFC-2009 for petroleum.

19. It has been agreed that the provision of specifications and guidelines for UNFC-2009 shall be undertaken through cooperation with CRIRSCO for minerals and SPE for petroleum. Since there is no intention to develop new, and different, commodity-specific specifications and guidelines, some form of “linkage” between UNFC-2009 and these commodity-specific systems would be the logical solution. The precise form of any linkage would have to be agreed both within the Expert Group on Resource Classification and with CRIRSCO and SPE. This approach would help to promote the CRIRSCO Template and SPE-PRMS as the preferred commodity-specific systems, and would not affect reserve/resource reporting based on those systems, but it would also provide a sound basis for UNFC-2009 to act as an umbrella system. UNFC-2009 could then be used to **complement** the commodity-specific classifications by ensuring that only equivalent (comparable) estimates made under these two systems are classified under the same UNFC-2009 code.

20. It is evident that both the CRIRSCO Template and SPE-PRMS incorporate many of the specifications raised by the UNFC’s stakeholders, but it is also clear that they are not able to respond fully in their current form to the expressed needs of all stakeholders, though perhaps for somewhat different reasons.

21. The CRIRSCO Template is explicitly designed for external corporate reporting as required by regulatory bodies and is widely accepted for that purpose. It does not seek to address the needs of governments for national inventory purposes. Consequently, it includes specifications that are entirely appropriate for public reporting purposes, such as not aggregating mineral reserves and mineral resources, but which may not be appropriate for national inventory purposes.

22. SPE-PRMS provides a broad classification framework that intentionally leaves a significant amount of flexibility up to the user, and hence it can be adopted by a wide range of stakeholders with different objectives. However, this can lead to limited comparability unless all the associated assumptions are documented and made available alongside the corresponding estimates. Where comparability between estimates is particularly important, e.g. for financial reporting, this requires a higher level of specification (i.e. less flexibility) in order to ensure that the estimates reflect a common basis.

23. In the case of the CRIRSCO Template, it could be expanded to incorporate additional specifications and guidelines to address a broader range of stakeholders, including governments, but this could lead to apparently conflicting guidance (e.g. with respect to the aggregation of mineral reserves and mineral resources) which could reduce the effectiveness and clarity of the system as it currently stands. Similarly, SPE-PRMS

could be “tightened up” so that it would be more suitable for regulatory reporting, for example, but this would limit its flexibility in other areas.

24. A further issue is that, although the CRIRSCO/SPE mapping of the two systems showed that there is reasonable comparability between them, there are also some key differences. The definition of quantities as proved reserves, for example, is quite different between systems. SPE-PRMS assigns commodity sales volumes as proved reserves (i.e. post-processing), whereas the CRIRSCO Template assigns pre-processed extracted quantities as proved reserves and provides for sales quantities of the metal or mineral to be published separately through reference to processing recovery factors. Coal is slightly different as it may also be quoted as “Marketable Coal Reserves” (post-processing) in addition to “Coal Reserves” (pre-processing).

25. All of the categories that are currently reported under CRIRSCO-based codes or SPE-PRMS provide useful information to users of reserve/resource information and there is no suggestion that such disclosure practices should change. However, if UNFC-2009 is to provide a generic (cross-commodity) tool for classifying quantities, it is clear that it must reflect a common set of principles. In the case of “proved reserves”, limiting UNFC-2009 code 111 to sales quantities only, for example, will help to ensure comparability between minerals and petroleum. Application of the term “proved reserves” would not provide this. The key is to ensure clarity in reporting so that it can easily be identified by users of the information which particular numbers from each of the underlying systems are comparable with each other, not to constrain or influence the information that is currently disclosed.

26. UNFC-2009 offers the potential to address these differences between systems without compromising the integrity of the underlying systems. This can be achieved through the provision of some high-level generic specifications for UNFC-2009 that are entirely compatible with the detailed and commodity-specific specifications of the CRIRSCO Template and SPE-PRMS, but which are designed to ensure reasonable comparability at a generic level, i.e. regardless of the specific commodity involved. In addition, consideration must be given to the issues raised by stakeholders that may be best dealt with at a commodity-specific level.

A. Types of external reporting

27. In line with the goal of providing a tool to facilitate global communications, the focus of UNFC-2009 must be on those resource estimates that are made available in the public domain. While four key areas of application of UNFC-2009 have been identified, there are two main sub-divisions where clear differences in reporting requirements are evident. These may be referred to as “State reporting” (e.g. Government inventory reporting) and “Company reporting” (e.g. for financial reporting purposes). There are also some differences between industry sectors that are primarily a consequence of the distinction between the mining of solids and the production of fluids through wells.

B. State reporting

28. State reporting may include consolidation of information supplied by companies, or estimates derived by a government’s own experts, or a combination of the two. The focus is on establishing reserve/resource estimates for the whole country, including areas that may not be licensed to any exploration/mining companies, and will be based on “gross” (100%) estimates rather than the “net” quantities attributable to any particular company (though that information may also be collated, of course). The estimates will consider the period beyond that of any company’s legal rights and will often require aggregation of quantities that would normally be reported separately at a corporate level (e.g. reserves and resources).

29. A key issue for State reporting is the need to aggregate quantities at a higher level than would generally be permitted for corporate reporting. However, the terminology used in the CRIRSCO Template and in SPE-PRMS is based around making a clear distinction between, for example, reserves and resources, since they should always be reported separately at a corporate level. Although these estimates may not be directly equivalent, it is necessary to be able to assess the overall long-term resource potential at a national level. Since the CRIRSCO Template and SPE-PRMS do not provide any standardized or accepted terminology that could be adopted globally for aggregated estimates at a national level (e.g. Economic Demonstrated Resources, as used by Geoscience Australia), additional classes could be defined under UNFC-2009 which, combined with appropriate specifications, could provide a common basis for reporting aggregated estimates. In this way, the specifications of the CRIRSCO Template, for example, which preclude the aggregation of reserves and resources, would remain in place, but the option to aggregate for national reporting purposes would exist at the level of UNFC-2009.

C. Company reporting

30. Corporate reporting requirements include internal company reporting for portfolio management and decision-making, and are based on evaluations at a project or individual deposit level with a focus on the commerciality of the project and establishing the proportion of future production (and hence revenue) legally attributable to the corporate entity. Financial reporting tends to be a sub-set of the information developed for internal corporate reporting purposes. Estimated quantities disclosed by the company as future sales should reflect those “net” quantities for which the company has a legal right to produce (or has an economic interest therein).

31. As mentioned above, SPE-PRMS incorporates a degree of flexibility that allows users to select different options for the level of detail needed for their reporting objective, as well as reflecting variations in current financial reporting practice (e.g. the treatment of royalty or lease fuel). This flexibility makes it very amenable to internal corporate reporting, as companies will choose the most appropriate level of detail to suit their needs, but it may also make it less suitable for direct application to financial reporting, where a level of comparability between companies is required. Specifications to UNFC-2009 could be provided that are very simple in nature and entirely generic, but which would ensure that reporting under the UNFC would provide an appropriate level of comparability for financial reporting and global communications.

32. As mentioned above, under the CRIRSCO Template’s definitions, a proved mineral reserve (extractable ore tonnage and average grade) is **not** directly comparable to a proved petroleum reserve (generally sales quantities, but which may include lease fuel), despite using identical terminology. This lack of direct comparability for quantities classified using the same terminology is a potential problem for meaningful global communications among non-experts, especially when dealing with aggregated estimates. Further, while corporate petroleum reserves are **always** reported as net quantities attributable to the company, mineral reserves may be quoted for the mine as a whole, with the company’s participating percentage interest in the project being quoted separately.

33. The extensive nature of disclosures made under the CRIRSCO Template is a key strength of the system. All the necessary information is generally made available to provide estimates that can be compared directly with estimates that would be reported under SPE-PRMS. If mining companies complemented these disclosures with a summary table documenting which of the reported numbers corresponded to the relevant UNFC codes such as 111 and 112 (i.e. the net sales quantities), and reporting under SPE-PRMS also included net sales quantities (excluding lease fuel), there would be a direct comparability of

estimates derived under the two commodity-specific systems without impacting either system or the evaluation process. The investor would obtain both the information that he/she is used to and also a clear indication of which of those numbers are directly comparable across industries. This link could also provide a basis for a simplified International Financial Reporting Standard (IFRS) that could be applied equally to both sectors without needing to address each one separately, while still relying on the CRIRSCO Template and SPE-PRMS for the commodity-specific classification and reporting requirements.

D. Solids versus fluids

34. There is a degree of concern about the potential for re-inventing the wheel with some “unconventional” resources. In the petroleum sector, SPE-PRMS is stated to be suitable for application to solids (e.g. mined bitumen) even though it was originally designed for fluids. This approach ignores the fact that the CRIRSCO Template has been developed specifically to address the mining of solids and would seem to be eminently suitable for such application. Similarly, the minerals sector is attempting to apply its system (designed for solids) to uranium produced as a fluid through wells. This example apparently leads to a commercially producing in-situ leach mining project having zero reserves, which may be perfectly correct under the wording of the CRIRSCO Template-based code, but would definitely not be the case if SPE-PRMS principles were applied. This particular situation is clearly inconsistent with the “close alignment” between the CRIRSCO Template and SPE-PRMS that is quoted in the CRIRSCO/SPE mapping project undertaken for the International Accounting Standards Board (IASB).

35. Currently, each industry is applying its own system to extraction processes that are very different from those on which the design of the system was based. So far, there appears to be a reluctance to adopt practices from the other sector, even though they may be more appropriate and the ultimate result (according to the CRIRSCO/SPE mapping project) should be equivalent in terms of the level of confidence in the estimate. More consideration needs to be given to the potential benefits of distinguishing evaluation and classification methodologies on the basis of the nature of the extraction process rather than on the industry sector that traditionally mined/produced that commodity.

VI. Recommendations

36. There is very strong support noted among existing users of the CRIRSCO Template-based codes and SPE-PRMS for the specifications and guidelines incorporated in those systems to provide the fundamental basis for solid minerals and petroleum respectively. In addition, it is clear that many of the issues raised by stakeholders are addressed to some degree in these systems and it would be counter-productive to duplicate those or, worse, deviate from accepted industry practices. In order to ensure that these specifications and guidelines are recognised as providing the preferred commodity-specific basis for UNFC-2009 application, subject to the approval of Expert Group on Resource Classification, it is recommended that possible mechanisms for some form of “linkage” (text reference) between UNFC-2009 and the CRIRSCO Template/SPE-PRMS is considered.

37. It is evident that a number of issues have been raised by stakeholders that are not currently addressed fully in the CRIRSCO Template and/or SPE-PRMS. Some are clearly generic in nature, and hence should be specified as an integral part of UNFC-2009 (e.g. as an addendum or complementary text), while others may be more appropriately addressed at a commodity-specific level. It is recommended that each issue is carefully considered in turn and either:

- (a) A generic UNFC specification is developed to address the issue, for the eventual approval of the Expert Group on Resource Classification, but subject to a public comment period;
- (b) An explanation is provided to the Expert Group to demonstrate that the issue is, or will be, adequately addressed in both the CRIRSCO Template and SPE-PRMS; or,
- (c) An explanation is provided to the Expert Group to justify why a specification is not considered necessary and/or appropriate for that issue (e.g. because it is a disclosure issue rather than one of classification).

38. Since CRIRSCO and SPE have agreed to cooperate with the Expert Group on Resource Classification in developing specifications for UNFC-2009 at a commodity-specific level (refer to Section I, paragraph 9), they must be directly involved in any discussions regarding how best to respond to the issues that have been identified. It is therefore recommended that a task force is established to prepare a report to the Expert Group that addresses the three points raised in the preceding paragraph. The task force should be of similar composition to the STF, or it could be the Technical Advisory Group if such a group can be established soon enough to ensure that the work continues without any delay. In either case, it must include formal CRIRSCO/SPE representation and should also include representatives from government organizations (minerals and petroleum) and the financial sector. The Bureau of the Expert Group on Resource Classification should set the mandate and terms of reference for the task force.

39. A key goal of UNFC-2009 is to provide a high-level global communications tool and the comments received by the STF on specifications show that comparability is high on the list of requirements of stakeholders. This can be provided by defining carefully what “goes into each box” in UNFC-2009 by providing **simple, generic specifications using plain language**. Even where some issues are addressed in the CRIRSCO Template or SPE-PRMS, if they are appropriate at a high level for any classification system, it is recommended that they are captured in an addendum to UNFC-2009 so that the specification (e.g. a requirement to quote an Effective Date for any resource estimate) would apply regardless of whether or not the CRIRSCO Template or SPE-PRMS was the basis for the estimate. The intention should be to keep these to the minimum necessary to ensure adequate comparability of estimates reported under UNFC-2009, but also to be consistent with specifications that may exist in the CRIRSCO Template or SPE-PRMS.

40. Examples of issues for which generic UNFC-2009 specifications *may be* appropriate are provided in the table.

Table: Examples of issues for which generic UNFC-2009 specifications *may be* appropriate

General Specifications	
Issue	Comment
Effective Date	Remaining quantities must be linked to a specific date
Commodity	Should be reported separately by sales product

Type	or, where aggregated, clarity provided on what commodities are included
Basis for estimate	Estimates should be clearly identified as either gross (100%) or net (quantity attributable to company)
Reference Point	Estimates must be linked to a reference point for comparability
Documentation	General specification for full documentation to be kept (<u>not</u> a requirement for disclosure)
Fluids versus solids?	Further clarity on distinction made for G1/G2/G3 in Annex I of UNFC-2009
G axis/probabilities	Specifications for probability levels when using scenario approach (to align with SPE-PRMS)
G4 granularity	Need to be able to capture (a) range of uncertainty; and (b) different maturity levels (SPE-PRMS, Russian Federation P1/P2/P3)
Commodity-specific specifications	Linkage to the CRIRSCO Template/SPE-PRMS
Glossary of terms	Only define “new” terms (if any), all others to be provided by cross-reference to the CRIRSCO Template, SPE-PRMS, InterEnerStat, etc.
Specifications for State Reporting	
Aggregation by commodity	Rules for aggregation of reserves and resources, including consideration of risking
Definition of additional classes	Classes that are aggregations of other defined classes, e.g. Economic Demonstrated Resources (as used by Geoscience Australia) or equivalent
Large scale resource deposits	Rules/guidelines for classifying deposits where some areas are licensed, but others are not
Aggregation using energy	Rules for defining energy equivalence?

equivalence	
Specifications for Company Reporting	
Net legal entitlement	Specification that reported sales quantities must be net to company (legally attributable)
Royalty	Clarity on inclusion/exclusion for reported quantities?
Economic assumptions	Management view, or view of Competent Person, or published view that is considered reasonable forecast
Aggregation	Rules for aggregation of quantities? Probability levels, risking?
Competent Person?	Generic reference? (Not explicitly addressed in SPE-PRMS)
Oil/gas quality?	Rules for defining oil/gas quality, or energy equivalent, or definition of “different” commodities?

Annex

Specifications Task Force Members

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