

The Road to a United Nations Framework Classification

Application to Mineral and Fossil Energy Reserves and Resources

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Harmonization of Fossil Energy and Mineral Resources Terminology**

UNECE Ad Hoc Group of Experts on Coal in Sustainable Development, 2-3 February 2006

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What is the UNFC?

- **United Nations Framework Classification for Fossil Energy and Mineral Resources.**
- **A framework to harmonize existing terminologies and definitions worldwide.**
- **Incorporates the principal criteria recurring in classifications: Economic viability, project maturity and knowledge of the geological endowment.**
- **Simple, universally applicable scheme for classifying and evaluating energy and mineral reserves and resources.**
- **Allows a common and necessary international understanding.**
- **A flexible system for application at global, national, industrial, institutional or financial level.**

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History of UNFC

- **UN Framework Classification for Solid Fuels and Mineral Commodities first initiated in 1992.**
- **Substantial work on the system by a UN Task Force in period 1992-1997.**
- **UN ECOSOC recommended all UN Members to use the system in 1997. Now used successfully or tested in more than 60 countries.**
- **In 2001, UNECE Committee on Sustainable Energy created an Ad Hoc Group of Experts (AHGE) to extend the principles of the UNFC to other energy resources (oil, natural gas and uranium).**

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History of UNFC *continued*

- **AHGE worked intensively with design of the system and harmonization with other systems during 2002-2004.**
- **UN Framework Classification for Fossil Energy and Mineral Resources established.**
- **ECOSOC recommended use of the system worldwide in its Resolution 233/2004.**
- **UNECE Committee on Sustainable Energy requests AHGE should continue its work ...**
 - **cooperate with relevant institutions**
 - **promote the practical implementation**
 - **issue guidelines.**

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Why the UNFC?

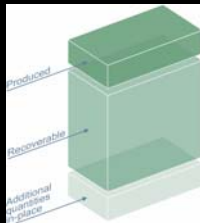
- **Enhance international communication.**
- **Support business processes and improve efficiency of resource management.**
- **Facilitate international financial reporting.**
- **Enhance the security of energy supplies and of the associated financial resources.**
- **Assist countries with transition economies in reassessing their resources, to make them more available at affordable costs through use of the international markets.**

The UNFC Classification

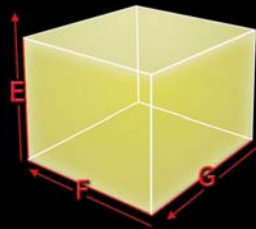
UN Framework Classification (UNFC) for Petroleum



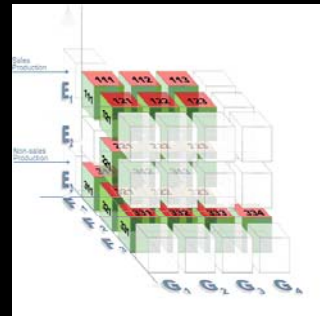
Total in-place



Principles



Classification



Economic and commercial viability

- E1 Economic
- E2 Potentially economic
- E3 Intrinsically economic

Field project status and feasibility

- F1 Justified
- F2 Contingent
- F3 Undefined

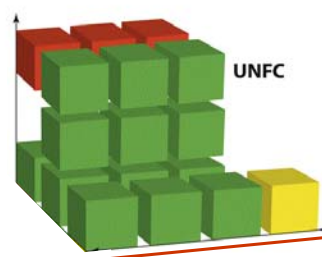
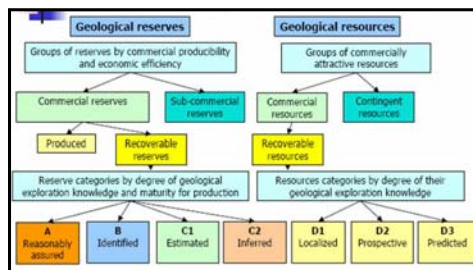
Geological knowledge

- G1 Reasonably assured
- G2 Estimated
- G3 Inferred
- G4 Potential

UNFC and the Russian Federation Classification Scheme



Russian Federation Classification Scheme

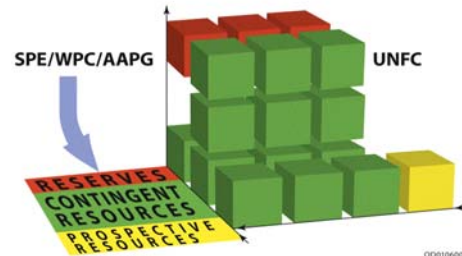


UNFC and the SPE/WPC/AAPG

**SPE/WPC/AAPG
Resource classification system**
(showing possible Project Status Categories)

Production	Project Status		
	On production	Under development	Planned for development
Reserves	Proved	Proved plus Probable	Proved plus Possible
Contingent resources	Low estimate	Best estimate	High estimate
Prospective resources	Low estimate	Best estimate	High estimate
	Unrecoverable	Prospect	Lead
			Play
			Unrecoverable

Range of uncertainty



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Why one common global code for energy and mineral resources?

- Global markets need global standards.
- Efficient markets need strong standards.
- The capital market became global after 1980.
- Global commodity markets are consolidating
 - The oil market is global.
 - The gas market will follow soon.
 - Host governments work with international partnerships.

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Why the UNFC?

- Enhance international communication.
- Support business processes and improve efficiency of resource management.
- Facilitate international financial reporting.
- Enhance the security of energy supplies and of the associated financial resources.
- Assist countries with transition economies in reassessing their resources, to make them more available at affordable costs through use of the international markets.

Why UN Patronage?

What are the options...

- Standard produced by ISO?
- Standard produced by security regulators?
- One standard produced by several professional organizations in concert?
- A global framework classification maintained with support of the United Nations?

Potential for Success of UNFC?

- **Key to global adoption of UNFC lies in efficiencies offered to stakeholders through new global markets with strong global standards.**
- **Transparent and voluntary process.**
- **Ongoing, open dialogue with all stakeholders.**
- **Wide range of stakeholders offered UN strong and constructive support to date and this is growing:**
 - **Governments, incl. G7 Ministers of Finance and Governors of Central Banks, NGOs and business community/private sector.**
 - **International organizations, incl. IAEA, IEA, IEF, OPEC, WEC and WPC.**
 - **Professional associations incl. AAPG, CRIRSCO, EFG, IASB, IOSCO, IVSC and SPE.**

Strong Stakeholder Representation Reflected in AHGE Bureau

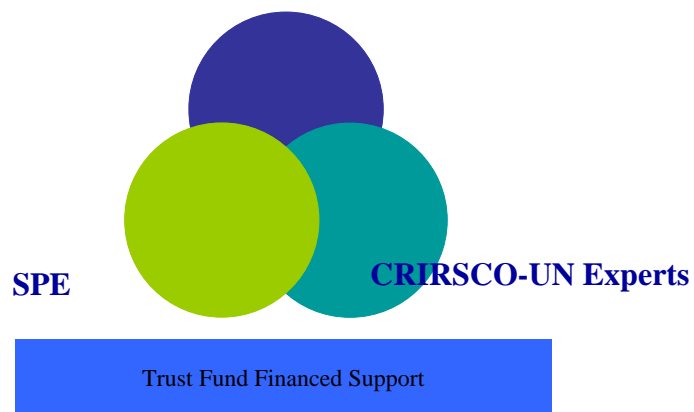
- **Norway (1), Russian Federation (1) and United States (1)**
- **NGO (1) and private sector (2)**
- **OPEC (1)**
- **Now also Combined Reserves International Reporting Standards Committee (CRIRSCO) and Society of Petroleum Engineers (SPE) (1 from each)**
- **Potential to enlarge, if warranted, to reflect principle applications of harmonized code in:**
 - **Energy studies e.g. IEA**
 - **Resources management**
 - **Corporate business processes and**
 - **Financial standards e.g. IASB**

Establishment of UNFC Task Forces

- **Two Task Forces established: for Petroleum (oil and gas) and for coal, uranium and other minerals (Solid Minerals) to develop a harmonized code by use of the framework facility of the UNFC, including specifications and guidelines required to meet international needs.**
- **Society of Petroleum Engineers (SPE) offered to lead the Ad Hoc Group of Experts Task Force for Petroleum.**
- **Executive Committee of the Combined Reserves International Reporting Standards Committee (CRIRSCO) offered to lead the Task Force on Solid Minerals, together with other members of the Ad Hoc Group of Experts.**

UNFC Governing Structure

Ad Hoc Group – Main Group



Key Objectives of the AHGE

- **Continue developing the harmonization code of the UNFC.**
- **Ensure that the development of a harmonization code be based upon cooperation with recognized industry professional societies by use of the framework facility provided by the UNFC.**
- **Facilitate development of Specifications and Guidelines to the UNFC, through the cooperation with SPE for petroleum and CRIRSCO for coal, uranium and minerals.**
- **Encourage development of UNFC education programme.**
- **Invite & facilitate development of case studies on voluntary basis.**
- **Seek to strengthen inter-agency cooperation and to cooperate and collaborate with all stakeholders.**

Key Developments / Activities in 2005

- **22+ presentations worldwide ... making the UNFC known in environments of importance as powerful code that it is.**
- **Developing a strong consensus for the need for one common code for fossil energy and mineral resources.**
- **Discussed formulation of specifications and guidelines under the UNFC with the professional organizations:**
 - **SPE (for petroleum)**
 - **CRIRSCO (for coal, uranium and minerals).**
- **Discussed formulation of Terms of Reference for work under UN Trust Fund to provide support to UN member countries and other stakeholders to facilitate application of one common code worldwide.**
- **Informal discussion meetings with stakeholders**
 - **IASB, IEA, IOSCO, OPEC, IEF, SPE, CRIRSCO, WEC, IAEA,more.**

Case Studies

- **Case studies regarded as vital for application of the UNFC.**
- **Many case studies already undertaken for the coal, uranium and minerals (available on UNECE website).**
- **Only a few case studies undertaken for petroleum.**
- **Recognition of need for close coordination between development of the UNFC specifications, guidelines and the case studies so that they can validate selected aspects of the guidelines.**
- **Case studies are voluntary ... however countries have been encouraged to carry out case studies.**

Global Capital Market requires Global Standards for Extractive Activities

- **IASB is researching an International Financial Reporting Standard for extractive activities.**
- **International Organisation of Securities Commissions (including US SEC) and UNECE AHGE dialogue to help guide the research.**
- **Agreement between IASB and US FASB to work towards convergence of their accounting rules.**

Conclusions

- **The UNFC for Solid Fuels and Mineral Commodities is extended to include energy resources, making it a UN Framework Classification for Fossil Energy and Mineral Resources.**
- **A strong code for improving the management of extractive industries worldwide.**
- **Development of Specifications and Guidelines for the UNFC for Petroleum undertaken in close cooperation with SPE OGRC.**

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<http://www.unece.org/ie/se/reserves.html>



The screenshot shows the UNECE website interface. At the top, there is a navigation bar with links: HOME, PROGRAMMES, MEETINGS, INFORMATION RESOURCES, ABOUT UNECE, and CONTACT UNECE. A search bar is also present. The main content area is titled "Industrial Restructuring, Energy and Enterprise Development Division" and "Energy Reserves and Resources". It includes a section "including" with two bullet points: (i) United Nations Framework Classification for Reserves/Resources (UNFC); and (ii) Ad Hoc Group of Experts on the Supply of Fossil Fuels. Below this, there is a box titled "United Nations Framework Classification for Energy and Mineral Resources" with a description and a link to "Download Final Version". To the right, there are sections for "Links" (Contact List, Organigram, Site Map, ECE Energy Links), "Information" (Current Documents, Archive Documents), and "Meetings & Events" (Future Meetings & Events, Past Meetings & Events, Presentations/Conferences). A sidebar on the left contains a "Menu" with links to Sustainable Energy, Introduction, Committee on Sustainable Energy, Coal, Electricity, Energy Efficiency, Energy Pricing & Subsidies, Energy Reserves & UNFC, Energy Security, Gas Centre, Working Party on Gas, and a link back to the Main Index.