

**The Norwegian Petroleum Directorate  
United Nations Economic Commission for Europe  
Ministry of Energy and Mines (MINEM)  
National Office for Mineral Resources (ONRM)**

*Under the Norwegian Oil for Development Programme (NORAD)*

## **UNFC National Workshop for Cuba**

**7–9 December 2015**

**Venue: Ministry of Energy and Mines  
Havana, Cuba**

### **Scope**

The scope of the workshop is to present the full capability of UNFC-2009 as instrument to classify mineral and petroleum reserves and resources in the same system. The workshop is a follow up of an introduction to UNFC-2009 presented by NPD to the MINEM/ONRM as an activity under the previous Norwegian Oil for Development Programme that was finished late 2013. The workshop aims, through presentations, exercises and case studies based upon Cuban data, to demonstrate mapping from Cuban Classification Systems to UNFC-2009 for the purpose of presenting Cuban data in UNFC-2009 system.

### **Agenda**

#### Key topics

1. Development of the United Nations Framework Classification (UNFC-2009), the Stakeholders, the Process and the Role of the United Nations.
2. The classification Framework and how it works
3. Specifications for the use of UNFC
4. CRIRSCO Template for Minerals and Specifications
5. Cuban Minerals Classification
6. UNFC-2009 for extraction and relation to Sustainable Development Goals
7. PRMS for Petroleum and PRMS Specifications
8. Cuban Petroleum Classification
9. Classification exercises for Mineral Projects and Petroleum Projects
10. Case studies for Mineral Projects and Petroleum Projects. Examples from Cuba.
11. UNFC-2009 used for other commodities;
  - a. Renewable Resources
  - b. Injection Projects
12. Conclusions and outcome of the workshop

# UNFC National Workshop Cuba

Draft programme

**Day 1 Monday 7 December 2015**

Time	Activity	Responsible
08:30	Registration	
09:00	<b>Official Opening Ceremony</b> - Welcome - Statements from Norwegian Embassy, the Ministry of Energy and Mines, UNECE/ECLAC - Presentation of the resource persons and participants	
	<b>Session 1: United Nations Framework            Classification for Fossil Energy and Mineral            Reserves and Resources, UNFC 2009.</b> - UNFC 2009: An introduction - UNFC-2009: Why classify resources? - UNFC 2009: How it works <ul style="list-style-type: none"> <li>o Specifications for Application                of UNFC</li> </ul> Q/A	Charlotte Griffiths David MacDonald Per Blystad
	<b>Lunch</b>	
	<b>Session 2: UNFC 2009 used for minerals</b> - CRIRSCO Template based specifications for solid minerals - Cuba Classification of Mineral Resources <ul style="list-style-type: none"> <li>o Principles and examples</li> </ul> - UNFC-2009 application for Comprehensive Extraction projects and alignment with Sustainable Development Goals (SDGs) (Hari) Q/A	Edmundo Tulcanaza MINEM TBC Hari Tulsidas
	<b>Session 3: UNFC 2009 used for petroleum</b> - PRMS based specifications for petroleum resources - Cuba classification of Petroleum Resources <ul style="list-style-type: none"> <li>o Principles and examples</li> <li>o Introduction to case study                exercise</li> </ul> Q/A	David MacDonald MINEM TBC Per Blystad Hari Tulsidas
- 16.00	Discussion, Wrap-up day 1	

Preliminary program

**Day 2 Tuesday 8<sup>th</sup> December**

Time	Activity	Responsible	Comments
09.00	<b>Session 4: Mapping of the Cuban Mineral Classification and Petroleum Classification to UNFC-2009</b> - Intro Mapping Principles and Practice	David MacDonald Hari Tulsidas Per Blystad	
	<b>Case study Minerals</b> - Cuba Case Study of Mineral Resources - (UNFC/CRIRSCO Case Study (alternatively)) Q/A	MINEM TBC Edmundo Tulcanaza Hari Tulsidas	Brief presentation of the data set related to cuban classification. Mapping according to UNFC-2009
	Lunch		
	<b>Case Study Petroleum</b> - Cuba Case Study Petroleum - (UNFC Case study (alternatively)) Q/A	MINEM TBC David MacDonald Per Blystad	Brief presentation of the data set related to the Cuban classification. Mapping according to UNFC-2009
	<b>Practical exercise - Discussions</b>		Discussion on the solutions for practical exercises
-16.00	Discussion, wrap-up		
TBA	Reception at the Norwegian Embassy		Reception for all participants.

Preliminary program

**Day 3 Wednesday 9<sup>th</sup> December**

Time	Activity	Responsible	Comments
09.00	<b>Session 5: UNFC-2009 used for Uranium and Thorium</b> - Bridging Document and Guidelines	Hari Tulsidas	
	<b>Session 6: UNFC 2009 for other commodities</b> - Renewable Resources - Injection Projects Q/A	David MacDonald Per Blystad	
	Discussion, wrap-up and conclusion of the outcome of the workshop	All	
	Lunch		

Resource persons UNFC:

Mr. Per Blystad, EGRC, Norwegian Petroleum Directorate (NPD)

Mr. Jan Bygdevoll, EGRC, TAG, NPD

Ms. Charlotte Griffiths, EGRC, UNECE

Mr. David MacDonald, EGRC, BP

Mr. Edmundo Tulcanaza, EGRC, CRIRSCO

Mr. Harikrishnan Tulsidas, EGRC, IAEA

Invited:

Mr. Hugo Ventura, UNECLAC

Host:

**Ministry of Energy and Mines (MINEM)**

Organizations:

**ONRM**

**CUPET**

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***Suggested reading:***

1. United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009 incorporating Specifications for its Application, Energy Series No. 42, 2013.
2. Case studies and testing of the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources 2009: Norwegian Petroleum Directorate 2014 Case Study: The 2013 Norwegian Petroleum Resource Accounts presented according to UNFC-2009, ECE/ENERGY/GE.3/2015/5