

A brief overview of UNFC-2009 and its application to Renewables

Presented on behalf of the EGRC
and the Task Force on Application of UNFC-2009 to Renewable Energy

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UNITED NATIONS
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What will we do in this session?

- **Describe how the UNFC can be applied to Renewable Energies**
- **Discuss the main Opportunities & Challenges for application of the UNFC to Renewable Energies**

What has been done so far?

- **The Task Force on the Application of the UNFC-2009 to Renewable Energy was established in 2013**
- **Generic Specifications on the Application of the UNFC-2009 to Renewable Energy drafted and issued for public comments (2014)**
- **Public comments received, update of draft Generic Specifications is completed for approval by EGRC in April 2015**
- **The Task Force has set up 3 work streams: Geothermal, Bioenergy, Solar/Wind/Hydro**

UNFC

Classification Framework and Category Definitions

Generic Specifications

Bridging Document

Bridging Document

Renewable Specifications

**Petroleum Specifications
PRMS**

**Solid Mineral Specifications
CRIRSCO**

Geothermal Specifications

Bioenergy Specifications

Wind/Solar/Hydro Specifications

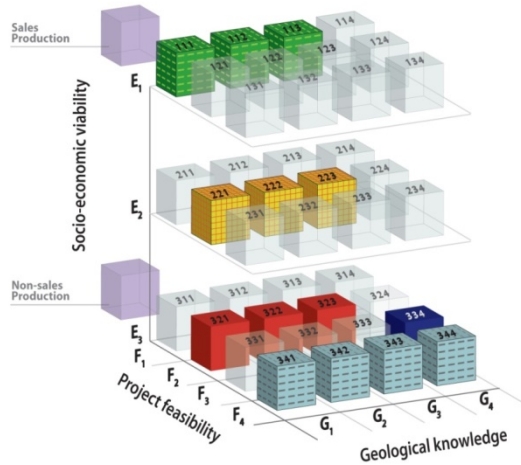
[Draw from] existing Codes/Frameworks/Guidelines/Practices

Summary of public comments

Very useful and detailed comments received from 15 parties:

- **General support that UNFC can be applied to Renewables**
- **Some comments appear to have been made on the basis of the Renewable Specifications in isolation, without appreciation that these are meant to complement and be consistent with UNFC**
- **Some confusion about “Annual Capacities” and “Potentials” versus the project-based concept of UNFC**
- **Some misunderstanding between the role of the G axis vs. that of the F and E axes**

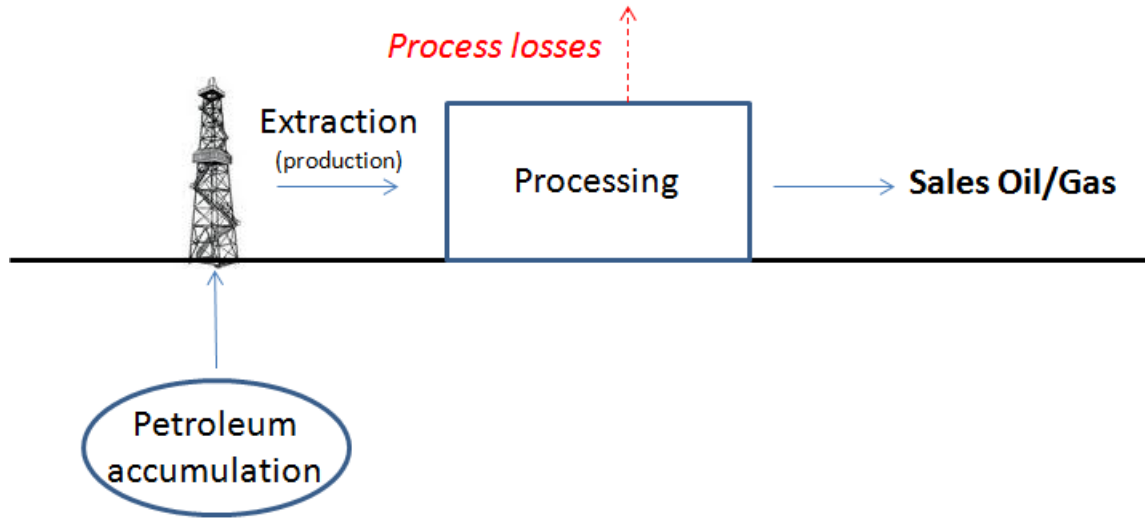
UNFC-2009 Classification



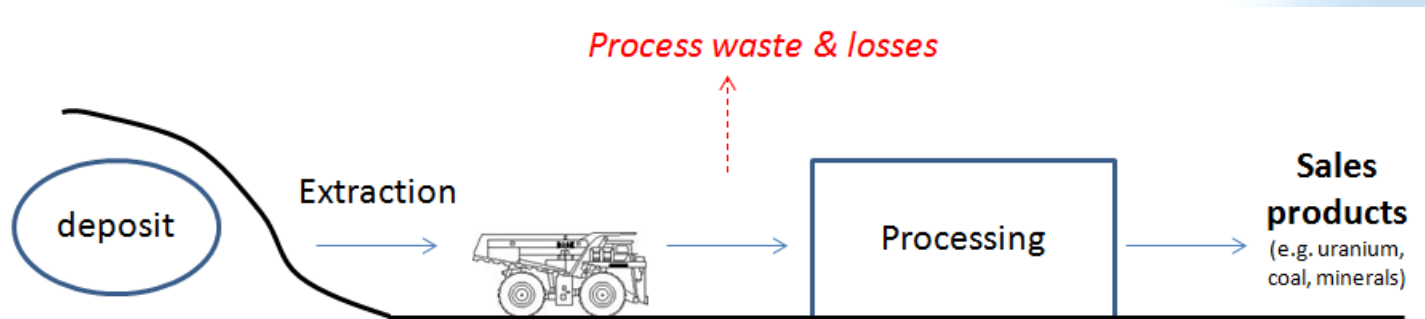
1. Application to Renewable Energies

2. Opportunities & Challenges

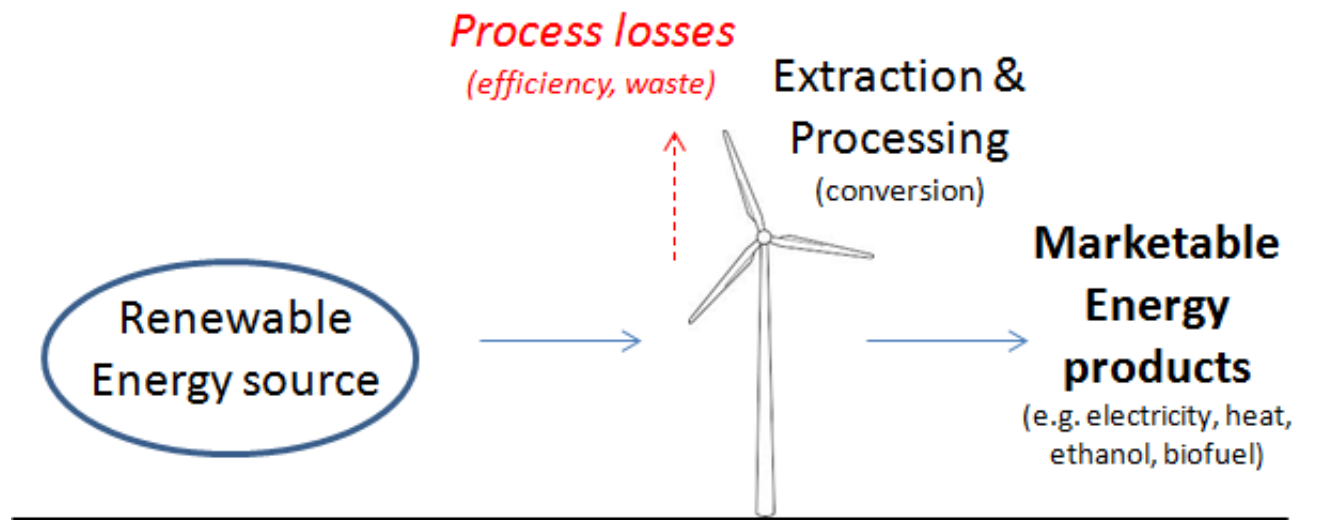
UNFC-2009 is “project-based”



The **project** generally represents the level at which a decision is made whether or not to proceed (i.e., spend more money)



Renewable energy projects are very similar to fossil energy or mineral projects

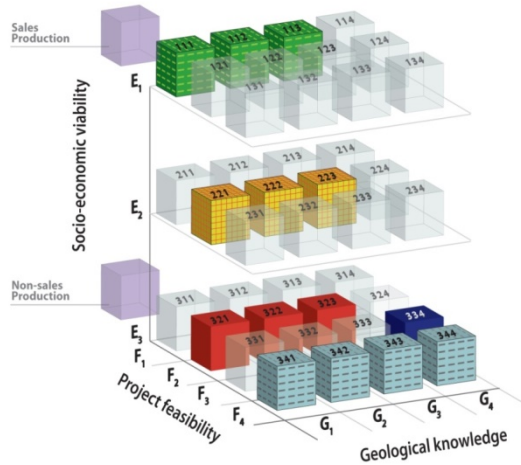


The Project is the link between the Renewable Energy Source and sales quantities of Energy Products and provides the basis for economic evaluation and decision-making

REN Projects

- **Renewable Energy Projects have similar characteristics as Fossil Fuel and Mineral Projects:**
 - The Project requires access to the deposit, accumulation or source
 - The Project includes a “process” to extract or convert the sales products
 - The Project requires access to a market
 - The Project has elements of risks and rewards for the investor
 - The Project has an expected production (and revenue) profile
- **The UNFC-2009 principles can therefore be applied**

UNFC-2009 Classification



1. Application to Renewable Energies

2. Opportunities & Challenges

Opportunities

- **Application of UNFC facilitates a more consistent language and terminology**
- **Application of UNFC leads to a more transparent comparison of Renewable Energies and Renewable vs. Non-Renewable Energies**
 - **Governments: Policy making – energy sustainability**
 - **Financial & Corporate sector: Capital allocation**
 - **Identification and removal common blockers**



Challenges

- **Many different stakeholders, relatively fragmented and limited global consolidation yet**
 - How to get input and support from full spectrum of stakeholders
 - Who will “own” and “maintain” the Specifications?
 - Is this initiative too early?
- **Common practice of using “Annual Capacity” and “Potential” is not aligned with UNFC-2009 project-based approach**
 - Is there sufficient incentive among stakeholders to define a Project and Project Life Time
- **UNFC-2009 is based on finite oil & gas or mineral deposits with associated geological uncertainties**
 - How to apply in a useful manner to Renewable Energy?



Thank You

**Questions?
Comments?
Discussion?**

