The Expert Group on Resource Classification (EGRC)

Meeting the Energy related Sustainable Development Goals (SDGs)

Background

The EGRC centers its activities on the development and maintenance of the UN Framework Classification (UNFC).

The UNFC has taken fossil energy and minerals classification from describing the natural endowment to classifying the projects exploiting them. In other words, it has moved classification from answering the question of "what have we found" to the question we need to answer now of "what can we get" out of the endowments we have found.

When moving to a classification of projects, we are no longer restricted to extractive activities. You are witnessing the consequences at this meeting by being invited to endorse the application of the UNFC to other energy related projects.

Purpose

The UNFC is developed to serve four purposes:

1. International policy support.
2. Government resources management
3. Industry business processes
4. Financing

The UNFC is thus a management tool.

Structure

The UNFC classifies projects on two substantial criteria:

1. Their readiness with respect to economic and social definition, i.e. the **E-categories**. Legal, regulatory, fiscal, contractual and social constraints defines the degree of readiness for execution.
2. Their field readiness with respect to scientific, technical and project management definition – the **F-categories.** This reflects the traditional value chain stages going from early exploration, through definition, design, construction, production and abandonment.

The general uncertainty of all quantities are defined by the **G-categories.** Uncertainty is defined either for incremental quantities with a standard deviation look alike, or cumulatively with by a probability that the quantity will be exceeded.

The categories and the grades within them are numbered in such a way that an inventory is independent of language and can be understood by anyone familiar with Arabic numerals who has access to a translation of the UNFC definitions to a language she understands.

The "what we get" question is answered by quantities delivered at reference points where quantities and qualities are readily determined. Their determination must be coherent with the determination of the same quantities entering the economy in statistical surveys. The non-sales quantities are emissions, waste and commodities used in household economies. They are important for environmental management and for addressing resources in non-monetized economies.

The Agenda

The UNFC is well established for fossil energy and mineral reserves and resources, including nuclear fuel extraction projects.

As mentioned, you are now invited to endorse an extension of the classification to injection projects, to renewable energy projects generally and to geothermal projects specifically. The EGRC is actively considering application to other renewable energy projects such as hydropower, solar and wind and to projects for enhancing anthropogenic resources. Water projects, and in particular groundwater projects are well within reach.

As the UNFC develops to include a broader range of projects, the EGRC will be open to consider a schedule for streamlining the UNFC definitions themselves to cast them in forms of words that reflect better the realities of all projects albeit at an abstract level. The current definitions use words that reflect the realities in extractive activities well, but that may be foreign to other applications. The way uncertainty in quantities are defined is an example. The UNFC defines it as the "level of certainty in geological knowledge and recoverability of the quantities".

Synergies with other UNECE bodies

Subsidiary bodies of the Committee on Sustainable Energy (CSE)

Natural gas:

The UNFC applies to natural gas production, sales and emissions.

Energy efficiency:

The CSE is concerned about efficiency from source to use. The UNFC is designed to develop inventories of quantities that are recovered for sale and used, quantities lost or used in production and quantities left unrecovered and thus lost in the underground or otherwise. The lost quantities define the energy efficiency of the production process. The losses are generally large.

Coalmine methane:

The UNFC applies to coal and coalmine methane extraction projects.

Cleaner electricity production from fossil fuels:

The UNFC applies to fossil fuel extraction projects providing feedstock for electricity production.

Other UNECE bodies

There are synergies to be harvested from a combination of the efforts of the EGRC and of the bodies of the Committee on Environmental Policy, The Conference of European Statisticians, The Steering Committee on Trade Capacity and Standards, The Committee on Forests and Forest Industry and the Committee on Innovation, Competitiveness and Public-Private Partnerships.

The EGRC in the context of the Sustainable Development Goals (SDG)

The EGRC sees itself as an important part of the ECE orchestra of bodies that strive to:

- Improve access to affordable and clean energy for all, help reduce energy related emissions and the carbon footprint of the energy sector in the region.
- Foster peace and prosperity through energy security and economic interdependence.

From what is said in this meeting and from the note of the Secretariat on the issue (ECE/Energy/2016/16) it is clear how the UNFC contributes to reaching the SDGs and in particular to SDG 1, 6, 7(most importantly), 9, 10, 11, 12, 13 and 17.

What has the EGRC been doing to translate this concept into action (last year and in the next cycle)?

The expansion of applications of the UNFC to renewable energy projects have started and is set to take a significant step forward at this meeting. This aims to serve the management and performance tracking of this sector.

An application to injection projects is proposed for endorsement. We are seeing numerous statements to reduce carbon emissions by applying a carbon cost in the market. All other things being equal, which they are not, this will force producers to reduce prices in order to clear the market. Some will close down, and the US system is particularly responsive to price, while others will increase production to protect revenues, as we saw last year. If a carbon cost in the market shall have full effect on the environment, and not just on the distribution of rent, then CCS and CCUS projects must be cleared on both the E- and the F- categories of the UNFC. The expansion of the UNFC to injection projects is thus essential.

The broad UNFC project coverage facilitates addressing a number of nexus. The energy-water nexus is on the SE4All agenda, as is the energy-food and bioenergy nexus. There are others such as the energy mining nexus that may come in focus.

The EGRC continues its incessant activities to remain inclusive and responsive to the needs, not only of the ECE member states, but generally, as it works under a global ECOSOC mandate. A very important event at this meeting is the presentation of a bridging document that establishes a formal relationship between the UNFC and the oil and gas classification of the Russian Federation. Similar bridging documents have been established between classifications of professional organisations and intergovernmental bodies and more are being discussed, in particular with China. To facilitate the harmonization of classifications in this and other ways, UNECE has entered into Memoranda of Understanding or similar tacit agreements with key organisations. Talks are currently underway to establish a MoU with the African Minerals Development Centre.

Maintaining a classification is hard work in communication. The EGRC has contributed to over 50 meetings and conferences in the last year, and published over 10 articles and professional papers. Its annual meeting in 2016 gathered over 200 experts from 40+ countries for a full week. Its work is organised through a broad Bureau of 21 members chaired by David McDonald of BP with Igor Shpurov of the State Commission of Mineral Reserves of the Russian Federation as its First Vice Chairperson. It is supported by a number of advisory group/task forces. This is administered by minimal UNECE staff (50% of one professional and 40% of one support person), that deserves and needs your full support, also with respect to staffing, finance and support for the broad range of translations required and other essential and excellent ECE services.

Now that the UNFC is well communicated, it is an urgent issue for the EGRC to ensure that there is appropriate capabilities (competence+capacity) globally to apply it. It is now time to strengthen the core body here at the UNECE, supported by commercial capabilities to achieve this. The CSE is welcome to support this essential step.

Apparent challenges

The EGRC would like to see a full coverage of sustainable energy issues covered by the CSE:

- There is a saying that the future is uncertain, but it is electric. A group of expert addressing electricity as its main topic is lacking. The CSE addresses this indirectly through other groups.
- Expert groups other than EGRC weakly represent energy production. As production always must equal consumption (ignoring storage and losses), the conversations regarding the SDGs, the NDC's and the SE4All goals will not be complete until policy analyses see both the production and the consumption sides and recognizes that effects on one side must equal effects on the other. UNECE may contribute to a more effective energy reform process by balancing the agenda.
- The energy reform required to meet the SDG's, the NDC's and the SE4All goals is not achievable without the full mobilization of the capital markets, through the energy industries. This is particularly true in the ECE region where the measures are capital intensive. This dynamic reform process can be substantially accelerated by building industrial ecosystems for the purpose. For this, it is appropriate for the CSE to establish an Energy Forum where Governments, industry and financiers meet to identify the characteristics of effective public-private partnerships and measures to build effective industrial ecosystems and help implement them. Regular and extra budgetary funds will be required. The EGRC and the UNFC have important roles to play here.

Commented [CG1]: GoE on Cleaner Electricity Production exists
Sigurd's response: Yes. But it is about cleaner electricity from coal and other fossil fuels. Integrating electricity supplies and delivering electricity based service are issues that do not flow intuitively from this title. Let me know if you wish to keep this in.