

**To: Members of the Bureau of the UNECE Expert Group on Resource Classification**

From: David MacDonald and Charlotte Griffiths

Conference Calls of the Bureau of the Expert Group on Resource Classification (EGRC)  
24–25 February 2015  
FINAL MINUTES

Present on 3pm GMT 24 February Call:

1. David MacDonald (Chair)
2. Tunde Arisekola (NGSA)
3. Karin Ask (petroleum sector)
4. David Elliott (financial reporting sector)
5. Gioia Falcone (geothermal sector and academia)
6. Nathan Frisbee *representing* Fatih Birol (IEA)
7. John Ritter (SPEE)
8. Jim Ross (petroleum sector)
9. Danny Trotman (financial reporting sector)
10. Hari Tulsidas (IAEA)
11. Brad Van Gosen (USGS)
12. Charlotte Griffiths (UNECE)

Present on 9am GMT 25 February Call:

1. David MacDonald (Chair)
2. Roger Dixon (CRIRSCO)
3. Jim Ross (petroleum sector)
4. Charlotte Griffiths (UNECE)

Apologies:

1. Fatih Birol (IEA)
2. Dan Diluzio (SPE)
3. Mucella Ersoy (Turkish Coal Enterprises)
4. Kjell Reidar Knudsen (NPD)
5. Michael Lynch-Bell (Chair ex-officio)
6. Igor Shpurov (First Vice Chair, GKZ Russian Federation)
7. Adichat Surinkum (CCOP)
8. Narendra Verma (petroleum sector)
9. Claudia Wulz (European Commission)

#### Draft Agenda

1. Approval of draft agenda
2. Draft minutes of Bureau calls 29-30 January 2015
3. EGRC Sixth Session update
  - EGRC Sixth Session Final Provisional Agenda
  - NPD case study
  - Thorium case study
4. Technical Advisory Group update
  - Revised TAG recommendation on Injection Projects
  - Revised CRIRSCO Bridging Document
5. Update on application of UNFC-2009 to nuclear fuel resources
6. Update on application of UNFC-2009 to renewable energy resources

- Minutes of RE Task Force Calls of 16 January 2015
7. Update on application of UNFC-2009 to injection projects
    - Final draft Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage – clean version
    - Final draft Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage – track changes version
  8. Update on E-axis Sub-group
  9. Education and outreach
  10. Any other business
  11. Timing of next meeting

Documentation:

1. Draft agenda for Bureau Calls on 24 & 25 February 2015
2. Draft Minutes of 29 & 30 January 2015 Bureau Calls
3. EGRC sixth session final provisional agenda
4. NPD case study
5. Thorium case study
6. Revised TAG Recommendation on Injection Projects
7. Minutes of Renewables Task Force Call of 16 January 2015
8. Draft Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage – Clean version (dated 18 February 2015)
9. Draft Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage – Track Changes version (dated 18 February 2015)
10. Uranium case studies in Niger and China
11. Final draft Generic Specifications for the Application of UNFC-2009 to Renewable Energy Resources (dated 20 February 2015)
12. Draft for discussion: Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage as submitted to EGRC Sixth Session (dated 23 February 2015 )

**Item 1. Approval of Draft Agenda**

Documentation: Draft agenda for Bureau Calls on 24 and 25 February 2015

1. The agenda was adopted without amendment

**Item 2. Draft minutes of Bureau calls 29–30 January 2015**

Documentation: Draft minutes of Bureau Calls of 29–30 January 2015

2. The draft minutes as circulated on 19 February were adopted without amendment.

**Item 3. EGRC Sixth Session update**

(a) Documentation for EGRC Sixth Session

3. The Chair advised that the secretariat had succeeded in securing approval to issue the following five documents for translation and these have now been submitted as official documents for the Sixth Session:

- EGRC Sixth Session Final Provisional Agenda
- NPD case study
- Thorium case study

- Final draft of generic renewables specifications
- Draft for discussion of specifications for application of UNFC to injection projects for purpose of geological storage
- Uranium case studies

4. All the official documents have been circulated to the Bureau and are posted to the EGRC sixth session web page.

5. Due to the UN formatting rules, the layout of the two specifications documents has changed compared to earlier drafts circulated to the Bureau since greyed out text is not permitted.

6. The Chair thanked all Bureau members who have contributed to the documents.

7. The informal documents for the Sixth Session are now being prepared. In particular, the draft EGRC work plan for 2016-2017 and the draft conclusions and recommendations for the Sixth Session will be key documents requiring Bureau input over the coming weeks. The draft conclusions and recommendations will need to be circulated to UNECE member States 10 days prior to the start of the session. The detailed timeline will also be prepared and will require Bureau feedback.

(b) EGRC Work Plan

8. The Chair advised that the UNECE Executive Committee at its meeting on 10 February 2015 endorsed the request to extend the EGRC work plan for 2013-2104 to the end of 2015.

9. The Bureau discussed items for inclusion in the 2016-2017 work plan. The importance of including the application of UNFC-2009 to solid minerals and to petroleum as one item in order to ensure the 3-way alignment is maintained was noted. Other topics proposed included:

- Application of UNFC-2009 to Nuclear Fuel Resources (development of guidance and case studies)
- Application of UNFC-2009 to Renewables (development of commodity specific specifications for bioenergy, geothermal, hydro, solar and wind)
- Application of UNFC-2009 to Injection Projects (specifications finalization and roll-out, guidance and case studies)
- Environmental and Social Issues (development of guidance)
- Development of web-based application tool for UNFC.

10. Bureau members were requested to send additional proposals to the Chair and secretariat. A draft work plan will be prepared and circulated for comment.

(c) Registration

11. Some 50 experts are now registered for the Sixth Session with the usual spread of solid minerals and petroleum experts from around the world. Bureau members were encouraged to register online in the event they had not already done so.

12. The Chair advised that he had met with Tom Murley, Head of Renewables for HgCapital and discussed the content of his keynote presentation to the EGRC Sixth Session

which will be tailored to meet the interests of all UNFC stakeholders. Mr. Murley provided valuable feedback related to the work on applying UNFC-2009 to hydro, solar and wind.

#### **Item 4. Technical Advisory Group update**

Documentation: Revised TAG recommendation on Injection Projects of 18 February 2015

13. The Technical Advisory Group (TAG) is continuing to work intensively. It cooperated closely with Karin Ask and her Task Force on the drafting of the specifications for application of UNFC to injection projects for the purpose of geological storage providing feedback and technical advice. The TAG circulated a revised recommendation on Injection Projects to the Bureau on 18 February. The revised recommendation was discussed under Item 7.

14. The TAG has been reviewing the revised CRIRSCO Bridging Document prepared by the CRIRSCO representative. The deadline for comments by TAG members was 20 February so it is anticipated that the TAG recommendation and the accompanying revised draft text of the Bridging Document is likely to be circulated to the Bureau over the coming weeks.

15. The TAG is also preparing its annual report to the EGRC as well as reviewing its Terms of Reference. A revised ToR is likely to be submitted to the Bureau for review prior to the EGRC Sixth Session.

16. The TAG will next meet on 12 March.

17. The Chair thanked the Chair of the TAG and the other members for their time and efforts.

#### **Item 5. Update on application of UNFC-2009 to nuclear fuel resources**

18. The representatives of the International Atomic Energy Agency and the US Geological Survey provided an update on the work of the Task Force. Three nuclear fuel resources case studies have been prepared for the EGRC sixth session: a case study on the application of UNFC to a thorium deposit in the US and two case studies related to application of UNFC-2009 to uranium deposits in China and Niger. These case studies have been selected from a series of seven that have been prepared for the Guidebook on application of UNFC-2009 to uranium and thorium projects.

19. The recommendation in the uranium case studies was noted: “the two case studies confirm that there would appear to be a straightforward relationship between the China Mineral Reserves and Resources Classification System (CMRRCS) and UNFC-2009 Classes and hence consideration may now be given to the possible development of a Bridging Document between the two systems.” Since CMRRCS is based on UNFC of 1997 this seems logical. It was agreed that it would be useful to have a presentation on the CMRRCS at the Sixth Session.

20. The current draft of the guidebook needs further refinement and editing before submission as an informal document for the EGRC Sixth Session. A number of Bureau members proposed that consideration should be given to separating the guidance from the case studies i.e. that the guidance should be a standalone document with the case studies as supporting material.

21. The Chair thanked the Chair of the Task Force and the other members for their time and efforts in developing the case studies and the guidance.

#### **Item 6. Update on application of UNFC-2009 to renewable energy resources**

##### Documentation:

- Final draft Generic Specifications for the Application of UNFC-2009 to Renewable Energy Resources (dated 20 February 2015)
- Minutes of RE Task Force Call of 16 January 2015

22. In the email circulated to the Bureau on 13 February 2015, the Bureau was asked for feedback on the text of the final draft Generic Specifications for the Application of UNFC-2009 to Renewable Energy Resources with a deadline for comments of 19 February. Only comments offering full support for the document and acknowledgement of the hard work of the Task Force were received from members. The draft table of contents for the commodity specific specifications was also circulated. Again, only positive comments were received.

23. The final draft Specifications for the Application of UNFC-2009 to Renewable Energy Resources has now been submitted as an official document for the EGRC sixth session.

24. The Bureau reviewed the TAG recommendation of 27 January 2015 related to the generic renewable specifications and the table of contents for the commodity specific specifications. There was full support for the recommendation.

25. Work is progressing in the Task Force on the development of bioenergy and geothermal specifications. The Bioenergy working group is working on case studies to assist with development of the specifications and a webinar on the bioenergy work will be held in early March. Whilst good progress is being made the draft bioenergy specifications will not be ready for presentation at the EGRC Sixth Session. The geothermal specifications working group is organizing a workshop at the World Bank in Washington during the first week of March. Progress on the development of the draft geothermal specifications will be presented at the World Geothermal Congress in Australia in April and also at the Sixth Session.

26. The Chair thanked the Chair of the Task Force and the other members for their time and efforts in developing the generic renewables specifications, noting that it is a quality document.

#### **Item 7. Update on application of UNFC-2009 to injection projects**

##### Documentation:

- Draft Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage – Clean version (dated 18 February 2015)
- Draft Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage – Track Changes version (dated 18 February 2015)
- Draft for discussion: Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage as submitted to EGRC Sixth Session (dated 23 February 2015 )

27. The Chair of the Task Force provided an update, noting that whilst the draft Specifications for the Application of UNFC-2009 to Injection Projects for the Purpose of Geological Storage has now been submitted as an official document for the EGRC Sixth

Session, the draft is very much a draft for discussion. There is not yet agreement in the Task Force on the term “storage potential”. It was felt that having the document translated into French and Russian would facilitate additional feedback both before and during the Sixth Session.

28. The Chair noted that a number of Bureau members had provided valuable comments which it had not been possible to address in the version submitted for translation. The comments would therefore be addressed in the next revision of the document. He confirmed that there are a number of opportunities to comment on the document: at the sixth session and during the Public Comment following the sixth session.

29. A Bureau member expressed a concern that the process of issuing a draft text as an official document was setting a precedent. It was confirmed that this was the process followed when developing the generic specifications for UNFC.

30. The Task Force Chair expressed her uncertainty as to whether it would be possible for the Task Force to issue a final agreed text by early September for submission to the Committee on Sustainable Energy. It was noted that if substantive comments are received during the Public Comment then the revised text would need to be submitted to the EGRC for approval which would take additional time.

31. A Bureau member offered to provide an Overview of the Use of CO<sub>2</sub> as Applied to Enhanced Oil Recovery (EOR) Projects during the Sixth Session, noting that his company Oxy is the world leader on this topic. Bureau members accepted this offer with enthusiasm.

32. The Bureau reviewed the revised recommendation on injection projects issued by the TAG on 18 February 2015. It was noted that all of the issues identified in the prior TAG review have now been resolved and accommodated in the revised draft document. The Bureau accepted the TAG Recommendation but noted that the text would change following the Sixth Session and the public comment.

33. The Chair thanked the Chair of the Task Force and the other members for their time and efforts in developing the draft specifications.

#### **Item 8. Update on E-axis Sub-group**

34. The Chair of the Sub-group provided an update on the work to develop guidance on environmental and social issues. He advised that he had circulated a comprehensive note to the Sub-group members on 10 February. The note was intended to provide background to the Sub-group and not to make any proposals as to what the end product of the deliberations should be. It was agreed that the note would be circulated to the Bureau for information.

35. Phase I of the work has now been completed and the draft ToR for the Sub-group will be submitted to the Expert Group for review at the Sixth Session. The Phase II Sub-Group has now been established, with the following membership:

#### Continuing Phase 1 Members

David Elliott (Chair), Geogil Consulting Ltd., Canada, Vice Chair EGRC

Kathryn Campbell, Sullivan & Cromwell, UK

Michael Lynch-Bell, UK

Slavko Solar, European Commission  
Tom Schneider, University of Alberta, Canada  
Roberto Villas-Boas, Centre for Mineral Technology, Brazil  
Claudia Wulz, European Commission

#### New Members

Julio Claudeville, Director of Sustainable Development, Barrick, San Juan, Argentina  
Julian Hilton, UK  
Anthony Hodge, UK, International Council on Mining and Metals (ICMM)  
Luis Martins, Portugal  
Michael Stanley, World Bank, USA  
Hua Yang (or nominee), Petro China, China

36. The Sub-group Chair is also working to identify a representative from the petroleum sector in South Africa.

37. The first meeting of the Sub-group is planned during the EGRC Sixth Session (during the lunch break on 30 April). Following the Sixth Session, the Sub-group will develop a more detailed work plan.

38. The Chair thanked the Chair of the Sub-group and the members of both Phase I and II for their time and efforts.

#### **Item 9. Education and outreach**

39. The UNFC Workshop in Geneva on 28 April as part of the Sixth Session will include a focus on Central Asia. Recent UNFC Workshops have focussed on countries from Africa, Latin America and South and SE Asia thanks to support from CCOP, Chile, IAEA and Mexico. The last UNFC event with a focus on Central Asia was in December 2009 in Almaty. Efforts are being made to secure participation by experts from the Central Asian economies.

40. The CCOP Technical Secretariat continues to update its member countries on UNFC during workshops and CCOP meetings. The Chair drew attention to three such events:

- CCS Workshop; Indonesia case study on CCS-geological storage, Bali, Indonesia, 25-27 February 2015
- CCOP - KIGAM Unconventional Oil and Gas Resources Project Coordinators Meeting and Technical Session, 21-22 March 2015, Thailand
- CCS Seminar /Workshop: Classification and Reporting of Oil and Gas Resources and Reserves, Bangkok, Thailand 22-23 April 2015.

41. The representative from the Nigerian Geological Survey drew attention to the 51<sup>st</sup> Nigerian Mining and Geosciences Society Conference that will be held in Lagos, Nigeria, 15–20 March 2015. The UNFC will be presented and the CRIRSCO representative on the Bureau will present on the CRIRSCO Template.

42. UNFC will also be presented at the APPEX Global Conference, London, 3-5 March 2015.

43. Discussion followed on the TAG review of the UNFC standard slides prepared by Jim Ross. Attention was drawn to the naming of the F-axis. The official wording for the F-axis is “field project status and feasibility” but following TAG review of the standard slides the TAG proposed wording is “Feasibility and project status”. On the cube itself the wording is abbreviated to “Project feasibility”. Bureau members underlined the need for the consistent use of wording throughout the slides and if the wording is to be changed to “Feasibility and project status” then agreement would be needed from the full Bureau. Jim Ross offered to circulate a note to the Bureau on the issue.

**Item 10. Any other business**

(a) Bureau membership

44. The Chair drew attention to the following:

- Fatih Birol has been appointed as the IEA's next Executive Director. The Chair sent a congratulatory note to Fatih on behalf of the Bureau.
- Igor Shpurov advised that his alternate is now Maksim Saakian. Shakhbulat Giravov is no longer with GKZ.

(b) EGRC Resourcing Strategy

45. The Chair has established a small group to work on development of a resourcing strategy for the EGRC comprising

- EGRC Chair
- Scott Foster
- Sigurd Heiberg
- Michael Lynch-Bell
- Claudia Wulz and Slavko Solar

46. A conference call will be held on 5 March to progress the issue. Michael Lynch-Bell offered to develop a straw man to facilitate the discussions.

**Item 11. Timing of next meeting**

47. The next Bureau call will be held during the last week of March or the second half of April. An availability message will be circulated as per usual practice.

48. A meeting of the Bureau will be organized over dinner on Wednesday 30 April after the cocktail reception. Additional meetings of the Bureau will be organized during the EGRC Sixth Session as may be needed.

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