**Proposed Agenda for Conference Call**

**PGC D.4, “LNG Life Cycle Assessment”**

**27 November 2012, 1300 GMT**

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* Review of PGC D Summary Presentation at The Hague meeting, 4 October 2012 (presentation included in conference call materials)
* Summary of Critical Near-Term Dates and Responsibilities (details from “Action Items” attached)
  + As Soon as Possible:
    - Review of IGU WGC2015 functionality for supporting Study Group work (Ted)
  + End of January 2013:
    - Draft list of LNG chains to be covered (Study Group)
    - Identify workshop opportunities and key contacts, initially April 2013 in Houston, Texas (Jupiter)
    - Identify workshop expertise and stakeholders for April Workshop (Study Group)
    - Develop interactions with other Study Groups where overlaps/synergies may exist.
  + Mid-April 2013 Study Group Meeting and LNG 17
    - Deliver first workshop in association with LNG 17 in Houston, Texas (Study Group)
    - Final decisions on LNG chains to be covered (Study Group)
    - Develop outline for final Triennium report (Study Group)
    - Review of studies and data sources archived to date
    - Discuss workshops coinciding with Spain and Japan PGC D meetings; focus on workshop in Spain.
  + Questions on Dates
    - Detailed timeline and deadlines for Houston, Texas workshop?
    - Other dates?
* Discussion of April Workshop Proposed Approach
* Proposed Agenda (included in conference call materials)
* Discussion of Invitees and Location, Facilities, and Coordination with LNG 17 (Study Group)
* Review of October Meeting “Action Items” (summary attached)
* Discussion of Website
* Other Business
* Conference Call Wrap Up.

**Proposed Agenda for April LCA Workshop,**

**Houston, Texas**

**Morning of 19 April 2013 (tentative)**

* + Introductions
  + PGC D.4 presentation:  Overview of the project, include presentation of IGU PGC D, our objectives, and the schedule [very brief]
  + PGC D.4 presentation:  Presentation and discussion of the LNG value chains and LCA environmental issues being addressed by the project, establishing the boundaries of the workshop discussion
  + Body of Workshop:  Brief PGC D.4 initial presentation and detailed workshop discussion of *each value chain in succession*:
  1. Linkages within the chain presented in process flow diagram format, showing proposed streams to be covered, and discussion of the structure
  2. Data discussion:  What’s available in the form of primary data for the stream associated with the chain, what’s not, proxy data for missing data, etc.
  3. Identification of key quantitative uncertainties and variable data likely to remain in the study and possible quantitative approaches for addressing these (e.g., simulation approaches, use of rates where variation is high such as kilos of CO2/tanker nautical mile in place of kilos/route).
  + PGC D.4 presentation and discussion:  Wrap up, final discussion of participant views and concerns, discussion of next steps including documentation of the workshop.

**Action Items From PGC D.4 Meeting,**

**The Hague**

**3-4 October 2012**

**Attendees**

Jukka Kaijansinkko (3 October)

Andreja Ana Lopac

Calogere Migliore

Rob Klein Nagelvoort (3 October)

Jupiter Ramirez

Phil Redding

Olga Senina

Sandeep Singla

Ted Williams

**3 October**

* **Group:** Provide suggestions of all chains that would be meaningful; Study Group will reduce/consolidate as needed and as appropriate. Separate production-to-gas; end use markets. Develop a draft of chains to be covered: LNG from E&P to “pipeline” gas; end use patterns. **Deadline: End of January 2013**. Prepare to roll out final list before next PGC D meetings.
  + Include end use for forward looking markets: bunkering, transportation fuels, etc.
* **Group:** Identify potential workshop opportunities and participants to broaden data and achieve better consensus. Jupiter to provide liaison. Examples to be discussed: 1.) pipeline alternatives to LNG – how inefficient idea of pipelines can become (i.e. pipelines from North America to Japan?) **Deadline: End of January 2013.**
* **Group:** Identify invitees to future PGC D meetings organizations that might be able to provide a technical contribution to chain development (e.g., DNV on shipping issues). Check with other groups to identify presenters who might meet objectives of multiple study groups. Target Houston meeting. Reps from large Asian (Japan) end users for information on end user portions of chain.  **End of January 2013**.
* **Rob:**  Check into Japanese study of comparative LNG sources and chains and technical approach document.
* **Ted**: Ask Japanese Gas Association about this comparison, too.
* **Group:**  Identify relevant LCAs studies for a working library for the Study Group. Chains and data sources. Include process plant emissions calculations (built up from process) from previous Triennium report). Include Australian EIS studies. Sample report from Solomon? EISs for receiving terminals and liquefaction operations. Deadline: Ongoing.
* **Ted:** Check to see if IGU WGC2015 website is currently a viable platform for housing the studies collected.
* **Ted:** Look into EPA GHG monitoring and other emissions inventory information.
* **Ted:** Ask if IGU has considered hotel space in conjunction with LNG17. (Other options for workshops in any case.)

**4 October**

* **Sandeep, Ted, Jupiter:** Study Group membership expansion; Asian (Japan Gas Assn; buyers), Exxon/Mobil, Norway, African (East African?)
* **Phil:**  Exxon/Mobil report on Papua NG; CERA studies on LNG as a truck fuel
* **Potential Workshop Participants**
  + **Ted:** Potential workshop participant (Environmental Defense Fund/CLNG); FERC (O’Donnell/commissioner?); LNG17 Paper presenters?
  + **Jupiter:** M. Foss, Center for Energy Economics
  + **Calogere:** Sedigas or a relevant European institution (Eurogas, GERG General Secretariat) for meeting in Spain, October 2013.
  + **Andreja:** RGN (academic; Croatia) data on oil chain, Spain, October 2013. Ask about Nenard Svarc to see if he has background/contacts on coal chain.
  + **Ted**: Review LNG17 program for other experts for April 2013 workshop.
  + **Calogere:**  General access to EU (through Eurogas, GERG, others). CM will take on for a October 2013 workshop.
* **Ted:** Interactions with Other Study Groups: Overlaps/Synergies
  + Investigate using the website to help correspond and help define relevant chains they’re working on.
  + Inform these other study groups of workshop plans of PGC D.4 and solicit participation.