

Minutes IGU WOC 5 – Utilization of Gas

On November 12, 2012 WOC5 Steering Committee had organizational meeting followed by a welcome reception offered by Gazprom Promgas to all participants of the WOC5 meeting.

On November 13, 2012 **54 delegates from 33 companies out of 20 countries** attended the first (during the 2012 – 2015 Triennium) IGU WOC5 – Utilisation of Gas – meeting.

The meeting was **hosted by Gazprom Promgas** Institute – Gazprom affiliated company – in Moscow on November 12 – 15, 2012.

Chairman of the IGU Coordination Committee Mr. Georges Liens (Storengy / GDF Suez, France), participated in the meeting.

WOC5 Study groups were represented by the following number of participants:

- Study Group 5.1 – Industrial: 15 delegates
- Study Group 5.2 – Residential & Commercial: 10 delegates
- Study Group 5.3 – NGVs: 24 delegates
- Topic Teams 1 & 2 – Renewables & Gas Quality: 5 delegates

The meeting was **moderated by the WOC5 Chairman – Mr. Eugene Pronin** (Gazprom export, Russia).

Following the opening remarks from the representative of Gazprom Mr. Sergey Balashov (Gazprom, Russia), Chairman of the IGU CC Mr.

Georges Liens made a big **presentation of the IGU Triennial Working Program** with particular accents on:

- = IGU organization
- = Theme of the Triennium
- = Strategic guidelines: main headlines
- = Strategic vision 2012 – 2015 and the 4 pillars
- = Task Forces 2012 - 2015
- = New issues and continuity
- = Suggested transversalities
- = Presentation of the committees programs, including:
 - Major Topics
 - Objectives

- Tools
- Deliverables
- = Key Milestones and
- = Conclusions.

This concluded the first plenary session of the meeting.

Study groups had individual sessions after the lunch.

WOC5 meeting was concluded by the second plenary session whereat SG Chairmen presented the results of the day. See minutes below.

At the end of the day **Gazprom Promgas** hosted official dinner.

On November 14, 2012 participants of the meeting visited on of Gazprom's CHP plants in Moscow.

This concluded the first WOC5 meeting.

**1st SG 5.1 (Industrial) Meeting,
November 13, 2012 - Moscow, Russia**

Members and attendees

16 Members

12 Attendees:

Egidio Adamo (Italy), Nuno Afonso Moreira (Portugal), Zatout Ali (Algeria), Andrei Albal (Russia), Philippe Buchet (France), Walid Kremia (Algeria), Irina Krishina (Russia), Marko Ileršič (Croatia), Bong Young Lee (Korea), Aksel Hauge Pedersen (Denmark), Willem Ploem (Netherlands), Aleksey Zorya (Russia)

Other members:

Mohammad Reza Ghodsizadeh (Iran), Fairos Roslan (Malaysia), Katz Sato (Japan), Marek Trzeźniowski (Poland)

1. Introduction

The Chair of the SG 5.1, Egidio, welcomed the new attendees and explained the agenda of the meeting.

Afterwards, the new triennium activity and the objectives of the industrial utilization SG within WOC 5 pillars of new triennium were explained and agreed, mainly natural gas for a sustainable development, combination with renewables & electricity, natural gas available everywhere.

M.A.R.K.E.T.S. acronym suggested in plenary meeting was commented and agreed. Afterwards, the Chair invited every member of the group to present himself (name, company, role, activities), inviting each of them to show his interests and matters to be discussed in the frame of SG 5.1.

2. Brief summary of past triennium

The Vice-chair, Nuno, briefly explained the main activities carried out in the past triennium in which he was the Chairman: content of the report, summary of the session at WGC held in KL in June 2012, selection of papers for oral presentation and poster session.

The work done in the past triennium is a good starting point for the new activities (see in attachment a synthesis).

3. New triennium work programme for SG 5.1

To organize SG 5.1 work within the framework of the TWP and focus on main items, an open session was started in which each attendees explained themes and ideas of interest. Moreover, each participant expressed willingness to contribute and lead single or more items.

Several main items appeared:

Market analysis, Fuel switching, Energy efficiency, Renewables, Gas to power, Energy Services in industry, LNG in industry.

For each items contributing people has been candidate as follows and first item leader has been assigned.

Item	Who	Item Area	Specific Issues
Market analysis situation	Alexey Zorya	Analyze trends in gas utilization in industrial sector	Gas use in industry
Fuel switching	Philippe, Alexey, Japan (to be discussed in next meeting)	Gather information on technologies using natural gas (fuel switch)	New technologies
Energy efficiency	Philippe, Alexey, Zatout	Compare international experience on energy efficiency (technologies & regulation)	Energy saving, Heat recovery, industrial chp. Synergy with energy services
Renewables	Japan (to be discussed in next meeting), Aksel, Kremia, Zatout, Sergej, (Promgaz), Wim (Enexis)	Exploring combination of natural gas and renewables	Combination of gas and renewables, technologies, biofuel, biogas,
Gas to power	Alexey, Bong Young, Kremia, Zatout, Marco	Study 'gas to power' technologies	New technology and high efficiency power production, large scale chp
Energy Services in industry	Philippe, Zatout (to be discussed in next meeting)	Investigate the role of energy services in industry	Services as vehicle for gas. Synergy with Energy Efficiency
LNG in industry	Nuno	LNG used in industry	Gas everywhere

The items defined are within the context of WTP recommendations.

Some items are considered of “Cross interest” with other items. This items and also some responsibilities (leader/co-leader) will be discussed and completed in the next meeting, in which a larger number of attendees is expected.

As for method in use, both technical and economical/feasibility aspects will be considered with a collection of case studies. Questionnaire method was discussed:

they have to be simple and focused. Committee ask cooperation of WOC 5 in send them to proper people in IGU.

A structure draft for the report of SG 5.1 was suggested.

TT1 and TT2 work programme were showed by leaders. Cross item were focused:

- TT1 (renewables): integration of renewable gas, production of gas from renewable power.
- TT2 (gas quality): methane number for chp engines, collection of existing Wobbe index control

4. Actions for the next meetings

Within the next meeting, the items leader defined will:

- think about a structure of the work for each assigned item;
- arrange a questionnaire to be sent to the members, to contribute to the work of the SG 5.1;
- propose eventually item for TT1 and TT2 based on respective programs

The agenda of the next meeting will include:

- confirmation and definition of items
- confirmation and definition of responsibilities (leader/co-leader)
- draft structure of each items
- analysis of the questionnaires

<i>Before...</i>		<i>Actions</i>		
1 st	2012 November	First Items definition	First Responsibility assignment	Sending questionnaire
2 nd	2013 spring	Analysis of questionnaires	Confirmation of Report structure and responsibility	Confirmation of items
3 rd	2013 autumn	WOC 5.1 Draft Report		
4 th	2014 spring	WOC 5.1 Draft contribution to WGC		
5 th	2014 autumn	WOC 5.1 Draft Report		
6 th	2015 June	WOC 5.1 Report (15 March 2012)		

Attachments:

- list of members of SG 5.1
- ppt minutes of meeting
- summary of SG 5.1 Report of 2009-12 triennium
- TT1 and TT2 program

Egidio Adamo - Nuno Afonso Moreira

**1st SG 5.2 (Residential & Commercial) Meeting,
November 13, 2012 - Moscow, Russia**

Minutes from first meeting

Introduction

The chairman and the vice-chairman of IGU WOC5 S.G.5.2 and (M. Seifert and F. Pastier) welcomed the delegates and members of S.G.5.2.

The principal aim and the task at hand is to consolidate the work of the last Triennium in the period 2012 – 2015. The World Gas Conference 2012 in Kuala Lumpur showed clearly that gas utilization technologies are most important in Japan and Europe. Exciting developments are under way or in the stage of being introduced in the gas market.

The presentations in Kuala Lumpur at the WGC2012 outline the program F. Pastier and M. Seifert conceived for this Triennium. The topics are:

1. Road Maps for gas applications Market introduction in collaboration with manufacturers and trade associations.
2. Micro-CHP: The next gas boiler technology
3. Hybrid Systems I: Gas boilers in combinations with other technologies photovoltaic, thermal solar, electric heat pumps etc.
Hybrid Systems II: Gas boilers in combination with renewable gas products like biogas, hydrogen-blends, power to gas.
4. Gas driven heat pumps (thermal heat pumps). Adsorption and/ or absorption or even gas engine driven heat pumps. Best available technology and future performance potential.
5. Fuel Cell heating systems: Scroll high electric efficiency technologies for low energy houses.

A Swiss knife for all situations.

6. Energy services and new technologies: The gateway to fast track introduction of new technologies.

Along these lines the IGU WOC5 S.G.5.2 work will be organized in order to get solid results for WOC5 and the IGU members out of the previous Triennium work!

Along with the mutations for the Moscow meeting a questionnaire was sent out. Six questions replied stating their state of affairs with new technologies. Many thanks to the contributors for our work; well done!

All members attended the Moscow meeting well prepared and all the valuable inputs are highly appreciated. Many thanks again on behalf of M. Seifert and F. Pastier.

Organization of the SG 5.2 :

A new Triennium started new members who have to learn to work together in S.G.5.2. and understand the targets. The session was started with:

- The presentation of each member,
- Their expectation from the SG5.2
- What subjects are important for the company and country they represent.

Then it has been proposed and decided all together:

- To work as much as possible during the intersession, either by questionnaire or by invitations to report on subjects.
- To decide on the work progress and the next steps in every meeting
- To have a centralized secretary and send to Evelyn Burkhard (e.burkhard@svgw.ch):
 - The intersession work: one month before the session
 - Proposal external experts for next session: manufacturer and/or specialist

Regarding the next World report, the SG5.2 decided:

- To structure the report:
 - A synthesis paper of 20 pages ... to have an overview of the Triennium work with the important results
 - An appendix of 100 pages ... on all topics S.G.5.2 worked on for specialists
- To study for each country: in regard to new gas end use technologies and their market introduction.
 - Regulation
 - The most representatives technologies and hybrid technologies for residential and SME markets.
 - Boundaries
 - Communication
 - Markets
 - The intersession work consists for every IGU WOC5 S.G.5.2 member in monitoring the national and company's situation according to the questionnaire in the annex.
 - Gas quality issues in regard of new gas appliances shall be reported in order to cooperate with IGU WOC5 Task Force 5.1.

Actions for the next meetings

It has been proposed for the next meeting to cooperate with other entities:

- SG 5.1 = Industry
- Task Force 5.2 = gas Quality
- PGC - E
- GERG
- Manufacturers

A calendar for intersession work has been proposed: intersession work must be done until March 2013

Suggestions to the WOC5 Management

1. We need a full day to discuss Study Group matters at least in order to address all pending issues

IGU WOC5 reserves at least a full day for each IGU WOC5 meeting for study group work.

2. Nomination of member of S.G. and IGU WOC5

We suggest an official nomination procedure for members and delegates of IGU WOC5 and study groups.

3. The complete list of members will be kept up to date by the IGU WOC5 secretariat.

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Frédéric PASTIER (SG 5.2 Vice Chairman - frederic.pastier@gdfsuez.com)

1st SG 5.3 (NGVs) Meeting,
November 13, 2012 - Moscow, Russia

Introduction

World-NGV Report & Overview:

Regarding, the NGV report which will be delivered by the Study Group, it has been discussed and decided several points:

- The report should contain update and shorten relevant sections to deliver key messages;
- The report format should be rather check-lists than lots of text;
- Study Group 5.3 should involve NGV Global for closer cooperation in providing inputs
- More focus should be put on legislative developments, make use of analyses which are being done anyway, (e.g. NGV Global + Regional NGV Associations to put together world-wide collection of legislative initiatives)

Key advocacy work should be conducted to the following stakeholders by means of formulating “to-the-point” value propositions:

- Discuss OEM value proposition for NGV at high level in OEMs → define target list and levels of OEMs (senior sales management) to attack from the side of IGU
- Convince press → coordinate press releases
- Convince own bosses that NG is one important direction forward (gas industry) + create argumentation for integrated that NGV is also compatible with Renewables/e-mobility for integrated energy companies
- End-customers not in primary focus as they will receive our “NGV messages” through the above stakeholders

Coordinate closely with NGV Global for the final IGU session in Paris 2015 to avoid separated and unaligned presentations/sessions like in Kuala Lumpur – Alicia Milner to be contacted

The Moscow meeting has been used to define responsibilities on who does what (see later on):

Understood link to and agenda of working group on Gas Quality :

- Especially relevant for dual fuel LNG is EU6 applies
- Coordination between Special Topic Nr. 1 with people working on gas quality in SG 5.3

Invite representative from China and India (Gas Industry) to join WOC 5.3

Actions for the next meetings

Within the next meeting, all Study Group members should think about and propose some real life experiences/real cases with CNG (e.g. success and failure stories from fleet operators, drivers, local authorities, etc.). A short description (2-3 lines) of these real cases should be made available to be discussed at the next meeting. Study Group members, will collectively decide which real cases/experiences will be included and described into the Final Report.

Within the next meeting, each member designed for taking the lead of a topic to be included in the Final report should :

- think about a structure of the work for each assigned item;
- think about possible contributions

It is proposed that the agenda of the next meeting should include:

- confirmation and definition of items to be included in the Final Report
- revision/amendment/confirmation and definition of responsibilities (leader/co-leader)
- possible draft structure of each items
- some contributions/examples from members
- other topics to be precise later on.

Contacts:

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David GRAEBE (SG 5.3 Vice Chairman - david.graebe@gazprom-germania.de)

Nominees to IGU WOC5 for 2012 – 2015

Note: this list is subject to changes

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**INTERNATIONAL GAS UNION
UNION INTERNATIONALE DU GAZ
2012-15 TRIENNIUM - WOC 5**



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