



WGCPARIS2015
WORLD GAS CONFERENCE



IGU
INTERNATIONAL GAS UNION
UNION INTERNATIONALE DU GAZ

**4th 2012-2015
WOC2 meeting
Pau, FRANCE
19 – 21 March, 2014**



Sponsors

- Meeting rooms
- Dinner 19th, UGS visit w. lunch
- Dinner 20th
- Coffee breaks
- Lunch 20th



TIGF

storengy

Une société de GDF SUEZ



geostock



Topics



- **Main meeting's goals**
- **Study group progress**
 - **SG2.1**
 - **SG2.2**
 - **SG2.3**
- **WGC 2015/WOC 2 sessions**
 - **Topics**
 - **Deadlines**
- **Next meetings schedule**



Main WOC2 meeting's goals



To verify:

- **SG's status & progress**

To agree upon:

- **2012-2015 WOC2 Report structure**
- **Next WOC2 meeting schedule**

To remind:

- **WGC 2015/WOC 2 Committee Session's**
- **Call for abstract submission deadline**
- **Challenge to support data collection**



SG 2.1 progress «UGS Database»

Tasks from Tehran

- ✦ **Start data collection via WEB application**
 Done 12/2013
- ✦ **Scope of studies & analysis**
 R: all SG2.1 members 01/2014

Next Milestones

- ✦ **Spring 2014**
 - ✦ Main Data collection closure
 - ✦ Samples of studies & analysis
- ✦ **Autumn 2014**
 - ✦ Draft version database & visualisation, analysis, report
- ✦ **Spring 2015**
 - ✦ Final version database & visualisation, analysis, report



« SG 2.1 progress «web application»

WGC ID	Name	Region	Type	Status	Actuality of Data (year)	Working Gas Volume (mil.m ³ /yrs)	Peak Withdrawal Rate (10 ⁶ m ³ /yrs/d)	Injection Rate (10 ⁶ m ³ /yrs/d)	Actions
2165	lanzhongnan	China	Oil Field	In Operation	2010	470.0	89.0	163.0	JD
2166	lanzhongbei	China	Gas Field	In Operation	2010	755.0	381.0	208.0	JD
2167	diaohanghu	China	Gas Field	In Operation	2010	600.0	417.0	133.0	JD
2168	bannan	China	Gas Field	In Operation	2010	501.0	250.0	125.0	JD
2169	lan876	China	Gas Field	In Operation	2010	217.0	381.0	208.0	JD
2170	lan828	China	Gas Field	In Operation	2010	237.0	30.0	50.0	JD
2171	lan	China	Gas Field	In Operation	2010	417.0	121.0	83.0	JD
2174	Erughero	Italy	Gas Field	In Operation	2010	694.0	416.0	291.0	JD
2175	Cellino	Italy	Gas Field	In Operation	2010	180.0			JD



SG 2.2 progress: « Techniques and new opportunities »



Status of papers to IGU magazine

Energy efficient operation gas storage leading to reduced environmental footprint) delivered to Spring/2014

Energy storage deadline for submitting 30/6/2014

Definition of best practices

to be elaborated/presented in a WOC2 report and WGC

Regulatory framework for UGS worldwide

- Appointment contributors (Europe, Russia & CIS, North America, Iran, China, etc)
- Decision have to be taken in Pau



SG 2.2 «IGU magazine spring issue»



« SG 2.2 WOC2 & PGC F »



Support a WOC2 session at WGC

- ✦ Development of “super-adsorbents” such as metal-organic frameworks (MOFs). BASF has commercialized some early materials. Worked with NuMaT, a start-up that has identified structures with the potential to achieve 50% LNG gas storage density at ambient temperatures
- ✦ Various schemes to “reversibly” store energy in carriers that can be compatible with the gas grid. These include so-called “power-to-gas” schemes that would convert off-peak power to hydrogen or perhaps methane for storage and transportation in the gas grid
- ✦ Small-scale LNG to create multi-functional, distributed gas storage that can serve markets include gas peaking service, back-up/emergency supply, and transportation markets



SG 2.3 progress: « Attracting students to storage activities »



Analysis of UGS sector gender characteristics

- ✦ SG 2.3 questionnaire will be distributed to WOC2 members
- ✦ Evaluation of/comparison to SG 2.3 questionnaire findings over trienniums and/or TF1 questionnaire

Agreed timeline

- ✦ Launching questionnaire 21/03/2014
- ✦ Submission deadline 30/05/2014

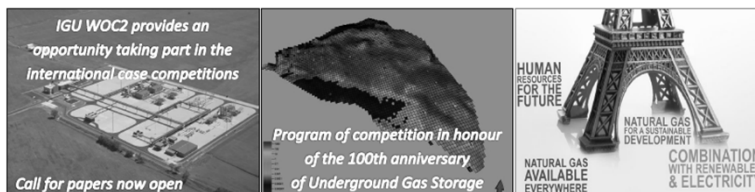
Program of competition among student's and young specialist's theses in honour of 100 anniversary of UGS.

- ✦ Call for paper issued 02/01/2014

Creation of PC based promotion and educational tools such as popular science move, cartoon, trainer-simulators



SG 2.3 progress: «Call for papers»



Under the topics corresponding to the "gold" and "green" strategic pillars of WGC Paris 2015 we are inviting you to take an active part in the "Program of competition in honour of 100th anniversary of Underground Gas Storage".

The general conditions

- The "Program of competition" is dedicated for students and young specialists working in UGS industry
- The limiting age of the candidates is thirty
- Authors of the three best theses will be awarded free participation to the WGC 2015 conference in Paris
- Topics of theses corresponds to the "gold" and "green" strategic pillars of WGC Paris 2015

Key dates

- Dec. 20, 2013 Call for paper issued
- Jun. 15, 2014 Full paper submission deadline
- Sep. 30, 2014 Deadline for evaluation
- Nov. 01, 2014 Deadline for sponsors
- Nov. 15, 2014 Official notification of competitions results
- Jun. 1-5, 2015 WGC2015 in Paris

Submission of abstracts

All abstracts must be submitted at the e-mail: N.Barsuk@adm.gazprom.ru

Contacts

All necessary information you can find on the website: [Cover letter competition program](#)

If you need any further information please contact n.barsuk@adm.gazprom.ru
Maria.Polakova@nafta.sk
 Or call Nikita Barsuk at +7-495-719-68-35 or Polakova Maria at +421-34-697-46-76



WGC 2015 sessions / WOC 2

SG2.1 „What is ahead of us: General trends & perspectives“

SG2.2 „Innovations & new technologies: can UGS industry take/do more?“

SG2.3 „Increasing attractiveness of Gas industry: what shall be done?“



WGC 2015 sessions / WOC 2

Call for abstract submission deadline

Submission period:

1 February 2014	1 September 2014
Acceptation/Rejection	28 November 2014
Full papers submission	13 March 2015



Next meeting schedule

Meeting	Date	Venue	WOC 2 Workshop's topic
Kick off	October 23-26, 2012	Bratislava, Slovakia	Introduction & Latest development in your companies
2nd	May 28-31, 2013	St Petersburg, Russia	Enhancing of performance and efficiency of storage facilities
3rd	October 1-4, 2013	Teheran, Iran	UGS Techniques & Opportunities
4th	March 19-21, 2014	Pau, France	Energy efficient operation gas storage leading to reduced environmental footprint
5th	September 15-17, 2014	Copenhagen, Denmark	IGRC (September 17-19, 2014)
6th	February 11-13, 2015 *	Vienna, Austria	Storage from trading point of view

* Final date has to be confirmed



WOC2 5th meeting in Copenhagen & IGRC 2014 (professional and logistic synergy)



Dear WOC 2 colleagues,

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I am, happy to inform you that fifth WOC2 meeting will take place from 15th - 17th of September, 2014 at the "Copenhagen Island Hotel" in Copenhagen. The meeting will be hosted by Energinet.dk. Please find attached the preliminary program.

Best regards,

Maria

- ❖ **16-17/09/2014 WOC2 programme**
- ❖ **16/09/2014 IGRC 3 alternative technical tours**
- ❖ **17-19/09/2014 IGRC programme**



Thank you for your attention



<http://www.wgc2015.org/>

www.igu.org:
Login : Gas4ever
Password : 2015FR



WGC 2015 sessions / WOC 2

◆ Supporting sessions during WGC

◆ A1 of PGCA1 **“Carbon Capture and Storage development and perspectives for a sustainable gas industry“**

with our CCS database according to storage strongly supported by Gazprom)

◆ F2 of PGC F-2 **“Convergence of gas appliances and infrastructure with electric systems and renewable energy“**

potential contribution of gas storages to energy storage

