



WGCPARIS2015
WORLD GAS CONFERENCE




IGU
INTERNATIONAL GAS UNION
UNION INTERNATIONALE DU GAZ

**SG 2.2: « Techniques and new opportunities »
Wrap up**

**4th WOC 2 meeting
Pau, France
March 2014, 19 -21**

SG 2.2: « Techniques and new opportunities »




• Leader: Fabien Favret

• Goal: promote and share techniques „best practices“ within storage community

• Activities and schedule

- 1. Energy efficient operation gas storage leading to reduce environmental impact
(Leader: Fabien Favret)**
- 2. New opportunities - Energy storage
(Leader: Jacques Grappe)**
- 3. Regulatory framework for UGS (around the world) → skipped
(Leader: Fabien Favret)**



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SG 2.2: « Techniques and new opportunities »



- **Session @ WGC 2015 named: "Innovation and new technologies: can UGS take / do more?"**
- **Coordinator with PGC A Sustainability (Ján Beňo) → CCS database covered by SG 2.1**
- **Contribution from PGC F for Energy storage → WOC2 Workshop Spring 2015 or Pre-IGRC session fall 2014**



SG 2.2: « Techniques and new opportunities - Best Practices »



1. Energy efficient operation gas storage leading to reduce environmental impact

- ✓ **Goal:**
 - ✓ *Reduction of the environmental footprint within the UGS operation in synergy with increased efficiency of operations*
- ✓ **Way:**
 - ✓ *Follow the injection/withdrawal/standby cycle and identify the points of energy consumption/environmental impact.*
 - ✓ *Adjust the scope of presentations for SG members*
 - ✓ *Propose efficiency increase measures – mix of technologies, new Technologies – in-house vs market software*
- ✓ **Leader: EdF/Edison name to be defined**
- ✓ **Timing:**
 - ✓ *IGU article in January 2014 based on NATO presentation in 2004 (FF) → Done*
 - ✓ *Topics of interest have been defined during this workshop → Done*
 - ✓ *Workshop: Spring 2014 (France or Italy) → Done*



SG 2.2: « Techniques and new opportunities - Best Practices»



1. Energy efficient operation gas storage leading to reduce environmental impact

- ✦ **Subjects of real and major interest identified → see session of yesterday/today**
 - ✦ *Subsurface integrity management : micro-seismic, caverns integrity management, ...*
 - ✦ *Characterization of performance of wells,*
 - ✦ *New technology : ejectors, lightning system, ...*
 - ✦ *Optimization of UGS operation s*
 - ✦ *Reduction of emissions and environmental footprint of UGS → limit of exercise due to unbundled activities*
- ✦ **Easy contribution to WOC 2 report from IGU article**
- ✦ **Call for papers launched February 2014
→ dead-line September 2014**



SG 2.2: « Techniques and new opportunities - Energy storage»



2. Energy storage

- ✦ **Goal:**
 - ✦ *Identification of the synergy between UGS and energy storage – new opportunities for the UGS*
 - ✦ *Recommendations/added value for the energy storage from the point of view of the UGS operators*
 - ✦ *Raise our voice for promoting UGS existing solution for energy storage: vision – contribution of the UGS to green energy deployment*
- ✦ **Way:**
 - ✦ *Energy storage techniques, energy storage demand, adjustment, identification of technological gaps and constraints in the chain/system.*
 - ✦ *Synergy between UGS and energy storage*
 - ✦ *Implementation of the energy storage (also form legislative, regulation point of view)*
- ✦ **Leader: Jacques Grappe**
- ✦ **Timing:**
 - ✦ *To prepare an IGU article for fall 2014 → used for contribution to WOC 2 report*
 - ✦ *No room for SG2.2 @ Denmark Copenhagen – IGRC.*
 - ✦ *→ A specific session one day before? PGCF to contribute to this workshop*
 - ✦ *+ last workshop by spring 2015,*



SG 2.2: « Techniques and new opportunities - Best Practices »



3. Regulatory framework for UGS (around the world)

- ❖ **Goal:**
 - ❖ *Information/comparison of the regulatory framework for UGS development and operation in various countries*
 - ❖ *Impact of regulation on projects*
- ❖ **New proposal :**
 - ❖ **→ To skip this topic**



SG 2.2: « Techniques and new opportunities »



Looking forward for your active support 😊

