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GSE observations on GGPSSO implementation

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Executive Summary

The ability to store gas at various points along the value chain from producer to end consumer is important from a number of perspectives such as long-term security of supply, reliability of (peak) supply, integrity of transport networks, matching supply and demand and facilitation of trading. With the further development of the internal market and the growing dependence on long-distance imports to Europe the demand for storage services within Europe is expected to increase. It is therefore essential to get the regulatory climate for gas storage “right”, i.e. achieve the objectives of fair and non-discriminatory access for third parties whilst promoting efficient investment.

A significant step was made in March 2005 with the agreement of the Guidelines for Good TPA Practice for Storage System Operators (GGPSSO) in line with the Gas Directive 2003/55/EC (Gas Directive). In 2006 ERGEG reviewed the implementation of the GGPSSO. They concluded unsatisfactory compliance in key areas such as transparency, equal treatment of storage users and congestion management.

GSE is committed to full implementation of the GGPSSO for all its members and took the initiative early 2008 to check the progress of GGPSSO implementation among its members. This was done by an internal questionnaire where 71% of GSE members participated (representing approx. 56 bcm of storage capacity – i.e. 70% of storage capacity in Europe). The main findings of the GSE survey, although not representing 100% of the storage market, show an encouraging trend:

- **57%** of the respondents have five and more users.
- **95%** of the respondents keep databases related to storage operations separate from non-storage functions.
- **Transparency has improved significantly since last ERGEG report in 2006:**
 - 100% of the respondents publish tariff information and commercial conditions.
 - 100% of the respondents have implemented user-friendly instruments for calculating charges.
 - 100% of the respondents publish capacity data.
- The GSE 2008 questionnaire shows a significant improvement of the situation regarding compliance on secondary markets among the member companies. The majority of GSE members have implemented an electronic platform or a bulletin board and others are planning to do so.

Findings on congestion management and capacity allocation are subject to another GSE review. Concerning the specific provisions for confidentiality in the GGPSSO, GSE observes that members have implemented effective measures and that many improvements have been made since the last ERGEG monitoring report.



Gas Infrastructure Europe (GIE) represents the interest of the infrastructure industry in the natural gas business such as Transmission System Operators, Storage System Operators and LNG Terminal Operators. GIE has currently 60 members in 27 European countries and is based on three columns: Gas Transmission Europe (GTE), Gas Storage Europe (GSE) and Gas LNG Europe (GLE).

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1. INTRODUCTION

The 31 storage operators represented by GSE operate around 110 storage sites throughout Europe. GSE is committed to improve the regulatory and investment framework for storage activities in order to help its members to continue providing secure, efficient and valuable services to the market.

Most European storage capacity is concentrated in a handful of countries which traditionally relied on seasonal gas storage, especially to optimise residential gas supply where long distance imports were substantial. The increased dependence on long distance gas imports to Europe and an increase in trading activity within European borders will increase demand for storage capacity.

GSE supports and enhances market access to storage facilities. A prerequisite for the availability of storage capacity - and thus a main concern for GSE - is the promotion of a secure and healthy investment climate. In this respect, some remarks to investment are appropriate and worthwhile to mention.

The technical, operational and contractual characteristics of storage facilities operated in Europe reflect the fact that most facilities were developed under considerably different market conditions and it is important that the legislative and regulatory frameworks accommodate these factors and do not impede the development and investment in new storage facilities.

Various types of risks confront the developer of new storage capacity:

- Depending on the type of storage (mainly depleted fields and aquifers) there may be considerable subsurface risk related to characteristics of the reservoir containing the gas.
- The lead-time for developing new storage is usually 4 to 8 years. The developer needs to be confident that there will be a market for his product after the storage has been commissioned.
- The regulatory climate may change between the time when the investment decision is taken and the commissioning of the storage facility. Regulatory conditions may change over the lifetime of the facility, potentially reducing the value to the developer and limiting the ways of competing with alternative flexibility instruments.
- Environmental legislation and permit procedures introduce further uncertainties during the construction of the facility.

To stimulate investments and avoid delays in the possible development of new facilities these risks need to be minimised. A predictable, stable and favorable regulatory framework as created with the 2nd Gas Directive and the GGPSSO is a prerequisite. Storage operators and storage users alike benefit from a healthy, competitive market for storage services and timely availability of required storage capacity.

2. BACKGROUND

The 2nd Gas Directive sets the framework for TPA to storage facilities. The GGPSSO, as voluntary provisions for transparent and non-discriminatory access to storage facilities, are in line with the Gas Directive.

In order to develop the GGPSSO, an intensive consultation process took place during 2004 and early 2005. GSE strongly supported the process to develop the GGPSSO and was actively involved in the discussions. As well as providing comments on the draft guidelines, GSE also organised several storage workshops to enhance the dialogue among all interested parties. With the effort of all stakeholders, an agreement on the GGPSSO was reached during the Madrid Joint Working Group on the 18th March 2005.

The GGPSSO are a voluntary, non-legally binding agreement between authorities, storage users and operators. The GGPSSO further detail the provisions in the Gas Directive and are intended to enhance market opening and transparency. GSE, as a representative of the majority of gas storage operators in Europe fully supports the GGPSSO and is committed to their voluntary implementation.

ERGEG issued questionnaires and produced a final report in December 2006. They concluded unsatisfactory compliance in key areas such as transparency, equal treatment of storage users and congestion management.

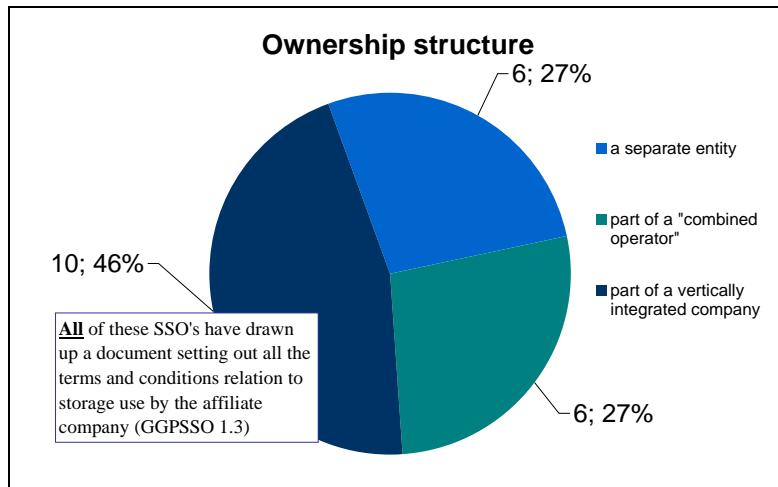
Early 2008 GSE took the initiative to check the progress of GGPSSO implementation among its members. This report presents the main findings.

3. REVIEW OF IMPLEMENTATION OF THE GGPSSO

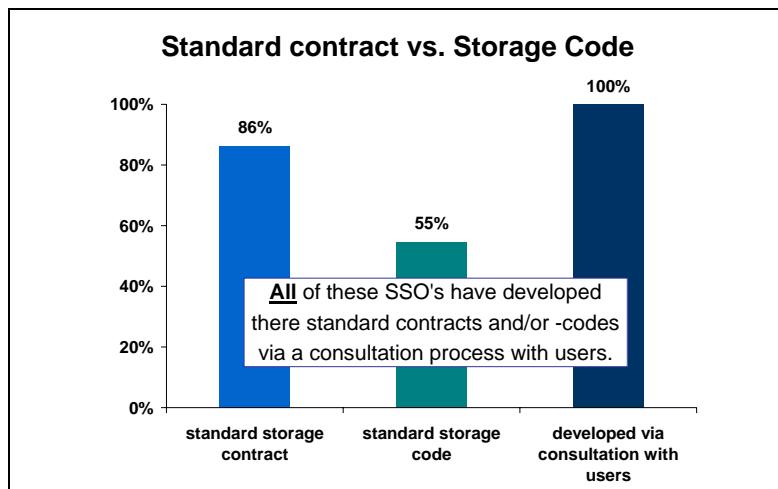
GSE consulted its members on the basis of the ERGEG questionnaires. As much as **71%** (approx. 56 bcm of technical working gas volume accounting for 70% of the total storage volume in Europe) of the GSE members responded to the GSE questionnaire.

3.1. Roles and responsibilities (GGPSSO 1. and 2.)

The responses of the GSE members about their ownership structure reflect the Gas Directive which recognizes a number of different ownership structures. Therefore no dominant ownership structure for SSOs prevails as they have several possibilities according to Article 15. In conclusion GSE respondents are split between those SSOs that are legally unbundled through separate entities (27%), storage operators which combine e.g. transmission and storage as part of a combined operator (27%) and SSOs that are part of a vertically integrated company with unbundled accounts (46%) according to GGPSSO 1.1.



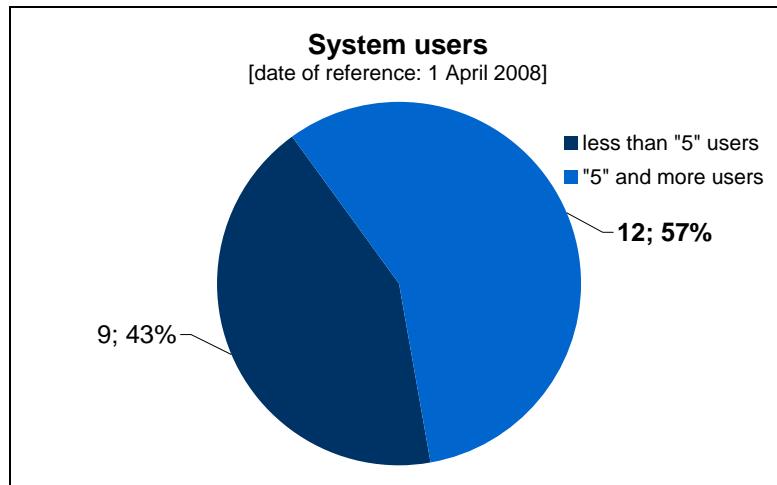
The majority of GSE respondents comply with the requirements to provide access to TPA storage services on consistent terms offered amongst users via standard storage contracts or storage code. **86%** of the SSOs offer standard service contracts and **55%** have storage codes. It is important to note that all GSE respondents consulted their storage users to some extent in developing their respective Contract/Code.



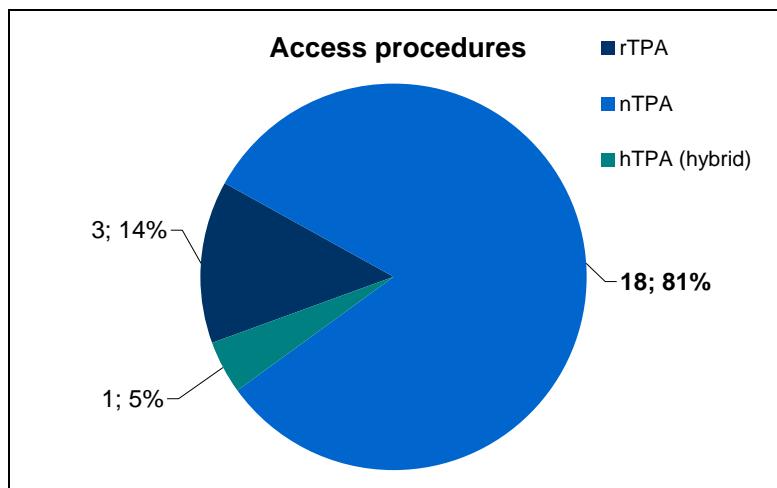
3.2. Necessary TPA Services (GGPSSO 3.)

The Gas Directive includes the obligation for SSOs to provide access on a fair and non-discriminatory basis as defined in Article 19. In addition, access can be based on a negotiated/regulated hybrid basis e.g. access to services provided on a negotiated basis with ex-post regulatory intervention should these services remain unsold. Therefore, the GGPSSO are aimed at setting out the minimum requirements for the provision of fair and non-discriminatory access to storage facilities and services in line with the Gas Directive.

The last ERGEG monitoring report (2006) stated that “**access to storage remains limited.**” It regretted that “Out of the largest twenty SSOs surveyed in the report, eleven SSOs have less than five users.” According to GSE’s assessment of GGPSSO implementation among its member companies, access to storage is improving. According to the GSE survey, 57% of the respondents (1 respondent stated that the number of system users is confidential) have five and more users.



The majority of GSE SSO companies provide access to storage services on a negotiated basis with only a small number of SSOs providing access on a regulated or hybrid basis.



GSE members which responded to the questionnaire operate approximately 56 bcm of technical storage space. 5 GSE SSOs exempt storage capacity on the grounds of article 2(9) of the Gas Directive (exclusively reserved by the TSO or used for production operations). In addition, 2 SSOs exempt less than 0.1% of storage space, primarily for technical reasons. 17 GSE SSOs offer storage capacity to storage users consisting of bundled units of space, injection and withdrawal ("SBU") as defined in the guidelines. The GGPSSO require unbundled services supplementing SBUs at least for available storage capacity at the start of the storage year, short-term services down to 1 day and both firm and interruptible storage services to be available from the 1st April 2006.

The respondents offer the following services:

- bundled services (SBU) of space and injectability/deliverability (**95%**)
- unbundled services supplementing SBUs at least for available storage capacity at the beginning of the storage year (**77%**)
- long-term (>1 year) services (**91%**)
- short-term (<1 year) services (**82%**)
- interruptible services (**82%**)

- a service which includes an obligation for the SSO to allocate the gas which has been nominated (**82%**)
- injection and withdrawal are possible at any time (in principle) (**91%**)

The above figures show that approximately **85%** of the respondents offer all necessary TPA services as required in the GGPSSO.

All respondents stated that the services offered have been developed and/or customized with proper consultation of storage users according to GGPSSO 3.4.a. Moreover **68%** of the SSOs customize their services through cooperation with bordering TSO in accordance with GGPSSO 3.6.

77% of the respondents allow their users to pool their nominations with a view to overcoming potential capacity thresholds (GGPSSO 3.8.). The others provided reasons where pooling is not allowed or not necessary.

Information systems and electronic communication between storage users and SSO allow both parties to interact in a timely manner providing commercial advantages to both parties. **91%** of the respondents communicate with users via email and through internet-based systems.

3.3. Storage capacity allocation and congestion management (GGPSSO 4.)

In the final 2006 report on monitoring the implementation of the GGPSSO, ERGEG states with regard to storage capacity allocation and congestion management: "*It is important that storage capacity is allocated on fair and non-discriminatory basis to ensure that no distortions or barriers to entry are created within the market*". ERGEG also states that allocation of capacity shall be tackled together with the implementation of anti-hoarding mechanisms, which is a position shared by GSE.

Concerning the specific provisions for capacity allocation and congestion mechanisms in the GGPSSO, GSE observes that most members have implemented transparent and non-discriminatory procedures for allocating capacity along with discouraging hoarding and developing congestion management procedures. Provision of interruptible services, short term as well as long-term services is effective.

The large majority of respondents (**86%**) have designed capacity allocation procedures through consultation with storage users themselves according to GGPSSO 4.1.e.

The following types of capacity allocation procedures are mainly reported: first come first served (22% of the total of mechanisms used), market based systems (e.g. auctions, 22%), first committed first served mechanisms (16%), and mechanisms reflecting existing PSOs of suppliers, usually based on priority rules depending on the type of customer served (pro rata, 22%). In some cases, these mechanisms are coexisting. The proportion of market based mechanisms versus first come first served and first committed first served showed a **significant improvement** compared to the latest ERGEG monitoring report.

A large majority of respondents (**86%** of respondents) have adopted congestion management mechanisms (GGPSSO 4.2) and means to discourage hoarding and facilitate re-utilisation and trade of storage capacity (GGPSSO 4.4).

A large part of respondents improved their procedure for congestion management in line with the GGPSSO requirements (through the establishment of UIOLI rules, limitation on the maximum allowed storage capacity to be contracted and through the secondary market).

3.4. Equal treatment and confidentiality (GGPSSO 5.)

In the last 2006 monitoring report, ERGEG stated that it is important that storage capacity is allocated on a fair and non-discriminatory basis to ensure that no distortions or barriers to entry are created within the market.

The 2006 ERGEG report did not find evidence that all measures have been consistently taken across Europe to ensure that storage operators do not favour their supply branch in some way. The ERGEG report also highlighted that many companies failed to produce a compliance programme or code of conduct.

The results of the GSE assessment of GGPSSO implementation among its member companies, exposed in the sections below, show that many improvements have been made since this last ERGEG report and that GSE member companies reach a high rate of compliance with regard to equal treatment and confidentiality.

Approximately **95%** of the respondents indicate that they keep databases related to storage operations separate, in order to ensure that commercially sensitive information from storage users' accounts remains confidential. **100%** of the respondents which are part of a vertically integrated undertaking developed new separated IT system for the storage business (GGPSSO 5.1.a).

95% of the respondents indicate that they ensure that no information available to the SSO concerning its storage business is passed to any other part of any affiliate of the company in advance of being provided to all market participants. This is in accordance with GGPSSO 5.1.b and c.

82% of the respondents have implemented a code of conduct/compliance programme supervised by a compliance officer that covers it. One stated no code of conduct is necessary to ensure compliance with this requirement because it is ownership unbundled. One stated that this measure is to be decided. One stated that there is no national requirement for a code of conduct at the moment.

Of those respondents which the question applies to, **78%** operate from a separate building from the supply company (GGPSSO 5.1.d).

3.5. Transparency requirements (GGPSSO 6.)

The final ERGEG monitoring report (2006) concluded that, compared to 2005, progress has been made with regard to commercial information and capacity data, however, the average level of information is still far below what is required by the GGPSSO, in particular with regard to the aggregate use of storage.

According to GSE's assessment of GGPSSO implementation among its member companies, compliance rates have significantly improved since the last ERGEG report. Significant improvement has been made by respondents particularly in relation to ERGEG's concerns regarding the aggregate use of storage.

Where applicable, **100%** of respondents publish the tariff information and commercial conditions required by the GGPSSO in relation to their respective TPA regime. This is an improvement compared to the latest ERGEG monitoring report (GGPSSO 6.4.a-d).

Where applicable, **100%** of the respondents have implemented user friendly instruments for calculating charges for a specific service. Where this is not applicable this is for reasons of simplicity of tariffs and/or de minimis rule. **This is a significant improvement** compared to the latest ERGEG monitoring report (GGPSSO 6.5.c).

Where applicable, **100%** of respondents publish capacity data. Where this is not applicable this is for reasons of de minimis rule and/or combined with their customers' request. **This is a significant improvement** compared to the latest ERGEG monitoring report (GGPSSO 6.5.a).

Where applicable, **89%** of respondents publish aggregated inflows and outflows. Where applicable, **89%** of respondents publish historical utilization rates. **This is a significant improvement** compared to the latest ERGEG monitoring report (GGPSSO 6.5.b).

Where applicable, **90%** of respondents publish planned maintenance periods, the operational information corresponding to them, and provide regular updates on the expected duration and effect of the maintenance. One is implementing a new information system which will accommodate the maintenance publication, one informs users bilaterally, and one is subject to the de minimis rule and does not publish the information (GGPSSO 6.8).

3.6. Storage Penalties (GGPSSO 8.)

86% of respondents stated that they have a clause or provision in the storage contract/code providing for compensation payments to the storage users in the event of failure to fulfil their contractual obligations (GGPSSO 8.1.a).

3.7. Secondary Markets (GGPSSO 9.)

The ERGEG report (2006) stated that secondary markets were limited and said that "SSOs must implement measures to facilitate secondary trading". It regretted that "companies having implemented an electronic platform or a bulletin board [were] still a minority although this measure facilitates greatly trade and is a requirement of the GGPSSO".

According to GSE's assessment of GGPSSO implementation among its member companies, compliance rates have significantly improved since the last ERGEG report.

Regarding the trade of bundled and unbundled services, **95%** of the respondents stated they have fully implemented this requirement (GGPSSO 9.1). This is an improvement compared to 2006. One company does not facilitate unbundled services.

91% of the respondents meet the requirement of title transfer for both bundled and unbundled capacities.

Regarding the recognition of transfer of rights where notified by storage users for both bundled and unbundled capacities, this requirement is met by **91%** of respondents. This is an improvement compared to the 2006 ERGEG report.

The GGPSSO request SSOs to allow the new owner to aggregate secondary storage capacity with its existing storage capacity operationally. This requirement is met by **91%** of respondents. This is an improvement compared to the 2006 ERGEG report.

With regard to the implementation of standardized contracts and procedures on the primary market to facilitate secondary trade of storage capacity, **91%** of respondents indicate that they comply with this requirement. These companies have included clauses in their storage code/contract regarding secondary trade of storage capacity and the vast majority of them is available on Internet.

Overall, compliance with GGPSSO 9.1 is high according to GSE's assessment.

Regarding the assessment of compliance against 9.2 and 9.3 (implementation of an electronic platform or a bulletin board), this requirement is met by **73%** of respondents. Compared to the 2006 monitoring report results, there has been a significant increase in the number of companies providing a bulleting board or an electronic platform to facilitate secondary storage capacity.

Respondents are taking various other measures to facilitate secondary storage capacity trading.

The GSE 2008 questionnaire shows a significant improvement of the situation regarding compliance on secondary markets among its member companies. A large majority of respondents have implemented an electronic platform or a bulletin board. This GGPSSO requirement is qualified by ERGEG as a measure facilitating strongly secondary trading.

4. CONCLUSIONS

Access to storage has been improving since the last ERGEG report as the majority of the responding SSOs (**57%**) have five and more users.

Moreover **85%** of the respondents offer all necessary TPA services as required in the GGPSSO.

GSE members have largely fulfilled the requirements concerning capacity allocation and congestion management mechanisms, ensuring that the maximum technical capacity is offered to the market.

Concerning the specific provisions for confidentiality in the GGPSSO, GSE observes that members have implemented effective measures and that many improvements have been made since the last ERGEG monitoring report.

GSE notes that **95%** of its members keep databases related to storage operations separate from non-storage functions. All the GSE SSOs part of a vertically integrated undertaking developed new IT system separately for the storage business.

Nearly all respondent SSOs (82%) have implemented a code of conduct or compliance programme supervised by a compliance officer. GSE can also highlight that even if it is not a provision required by the GGPSSO many of its members have been monitored or supervised externally.

When considering the five key areas of focus of ERGEG's findings on Transparency in 2006, GSE can conclude that considerable improvement has been achieved by its member organisations in all areas. Where applicable, GSE members have delivered significant improvements in relation to implementing user-friendly instruments for calculating charges, publication of capacity data, and publication of aggregated inflows and outflows. Furthermore, where applicable, our members have reported 100% publication of tariff information and commercial conditions, 100% implementation of user-friendly instruments for calculating charges, and 100% publication of capacity data. Overall, we view this progress as a demonstration of our members commitment to the requirements set out in the GGPSSO, and to ensuring market players can take commercial decisions with full knowledge of information.

The GSE 2008 questionnaire shows a significant improvement of the situation regarding compliance on secondary markets among the member companies. Compliance with the requirements of providing both bundled and unbundled services, title transfer, transfer of rights, capacity aggregation and standardised contracts and procedures appears massive according to the GSE questionnaire. Furthermore, by contrast with the last ERGEG monitoring report, SSOs which have implemented an electronic platform or a bulletin board are now a majority of the

responding companies. Moreover, several companies not yet complying with that requirement have plans to develop a bulletin board or a platform for secondary trading. This GGPSSO requirement is qualified by ERGEG as a measure significantly facilitating trade.