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GSE discussion paper: Will strategic stocks increase security of supply?

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Executive summary

In the recent years various issues have given rise to a renewed interest in, and political discussions about, security of supply: the partial reduction of Russian gas deliveries early 2006 and 2007; a growing dependence of the EU on gas imports, with particularly in some of the new EU Member States a very high dependency on a single source of gas; the ongoing liberalisation process in the European gas market where most of the gas will progressively be supplied from outside the EU.

Within these discussions, the concept of strategic gas stocks[1] has been introduced as a potential solution, sometimes even as a *panacea*.

But can strategic gas stocks increase security of supply?

GSE, the European association of gas storage operators, welcomes an open and transparent debate on this subject and wants to contribute its own view with the aim to continue ensuring a secure European gas and energy market development.

GSE believes that strategic gas stocks could be counterproductive and produce negative unintended effects that could worsen rather than improve security of supply.

GSE deems that more technically and economically efficient measures and market oriented alternatives exist and these are consistent with the objective of creating an efficient single European gas and energy market.

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[1] Our definition: *"strategic gas stocks"* are immobilised gas stocks and associated storage capacity (space, injection, send-out) held as a reserve to be used in case of predefined emergency events such as prolonged disruptions of physical gas supply.

Over the past 40 years the European gas industry has had a positive and solid track record of providing security of supply for all its customers, also relying on a well developed storage capacity.

<u>Why would industry no longer be able to continue providing security of supply to the EU?</u>

Before examining the "solution" of strategic gas stocks, it is worth considering the problem that this proposed solution seeks to address.

It is obvious, that, for many reasons, it is prudent to attach high importance to the issue of security of gas supplies to the EU. Equally evident is that in general there are advantages from a security of supply perspective to have gas storages located close to where the gas is consumed.

The type of gas storages that are most effective in the context of security of supply are the so-called seasonal storages[2], which also provide flexibility to optimise investment in infrastructure development (e.g. long-distance supply pipelines) as the infrastructure would otherwise require to be sized for peak winter demand instead of average annual demand.

Indeed, over the last few years, EU investment in seasonal storage has been lagging as a consequence of the significant legislative evolution the industry had to face and a general investment climate that has apparently not been sufficient to attract more investments.

But, as the GSE Investment Database[3] shows, the gas industry is now considering investing considerably in new storages: over the next 8 years storage investments are estimated to amount to ca. 40 billion cubic metres of additional working capacity, with capital expenditures of 20-30 billion euros[4]. Three quarters of these new planned capacities are seasonal storages.

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[2] These storages are typically filled during the summer season (when there is less demand) and depleted during the winter season (when demand is high due to cold weather conditions).

[3] http://www.gie.eu.com/gse/storageprojects/index.html

[4] Capital expenditure evaluations are subject to significant variations, mainly due to upstream-related costs (e.g. drilling and engineering services) and to the price of gas for building the required cushion gas.

Do governmental obligations to establish large volumes of strategic stocks really and durably improve and increase security of supply?

The view of GSE is that this could be counterproductive; in fact, this option is likely not to improve the situation but rather to worsen it.

- First of all, GSE believes that the implementation of strategic stocks as a measure to prevent possible gas supply disruptions could lead to substantial distortions on the gas market. As emerged during the GSE Investment Workshop held last 24 May 2007[5], strategic stocks could undermine the incentive for commercial investment in already existing and future storage facilities by existing or new players, possibly leading to a crowding out effect: more strategic storage will lead to less investment in commercial storage, leading to a need for even more strategic storage etc…

- Secondly, strategic stock building is very expensive in absolute and relative terms. Physically keeping gas stocks in the deep underground is totally different and much more expensive than, for example, keeping oil stocks, which are – in addition – quite easy to being used and transported in case of need. Based on the definitions in Directive 2004/67[6], the building of new “dedicated” storage facilities for this purpose could imply total capital costs in the range of 100-130 billion euros (capacity and gas). These costs will ultimately have to be borne by the gas consumers.

- Thirdly, commercial gas storages provide the market with several products that compete with other market instruments for providing flexibility and security of supply. Without sufficient capacity from such storages, market functioning would be less effective and efficient in securing gas supply to the market, eventually bringing to higher costs for final consumers[7].

- Fourthly, commercial storages operate in the various Member States with very different supply and demand frameworks: it is unlikely that a uniform solution could be applied for addressing the issue.

Other reasons could be mentioned as well. Also, there are many unresolved questions for this matter. Who would build such storages? Who would control them? Under what circumstances would they be used? Who will pay for them? Which performances should be granted and when?

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[5] http://www.gie.eu.com/gse/workshop/presented.html

[6] The directive EC/67/04 considers the current volume of EU-imports and the number of 60-day-interruption of gas supply.

[7] This can be the case even though strategic stock volumes can act as extra “cushion gas”, thereby providing extra withdrawal capacity for sale.

For the above reasons, GSE believes that imposing EU requirements to hold strategic gas stocks is not the right answer and the goal of ensuring a secure energy supply lies (also) in improving the investment climate for commercial (seasonal) storages in order that the necessary investments materialise consistently with market needs.

Which are GSE recommendations on the issue?

In order to achieve the goal of continuing to ensure an overall reliability of gas supplies and especially considering the gas storage industry, GSE offers the following recommendations:

1. **Predictability/stability of the regulatory climate**
   Many (potential) storage developers are sitting on the fence with respect to investing in storages: more than 50% of the projects in the GSE Investment Database are in the "Planned" status, with a final investment decision yet to be taken. Gas storages concern large capital-intensive projects with long lead times where the return on the investment has to be recovered over many years. The present uncertainties about the future regulatory climate for storage are a barrier for such investments. GSE recommends that, before any new regulations on storage (beyond the GGPSSO) would be introduced, the present regulation is strictly applied.

2. **Planning permissions streamlining**
   In many Member States, the process of obtaining planning permissions creates real but improper barriers for investments. For example, project economics deteriorate as a result of long lead times caused by delays in getting permits. Notwithstanding the fact that review processes on e.g. environmental aspects need to be careful and involve all stakeholders, GSE recommends that such procedures are further streamlined and that Member States seek to apply best practices in this regard.

3. **Stimulating measures**
   It is in Member States' interest to encourage the development of new commercial gas storage facilities in view of their importance for the functioning of the gas market and for security of supply. GSE recommends that Member States actively review the investment climate in their country for building such storages and seek to improve it where necessary. Costs for developing storages have increased dramatically over recent years, e.g. due to increases in the price of steel, equipment, labour and engineering, as well as in the cost of cushion gas. A particular consideration in this regard could therefore for example be the fiscal treatment of the cushion gas that is needed for the storage.

Conclusion

GSE believes the implementation of EU-determined strategic gas stocks does not represent the appropriate measure to guarantee security of supply and could in fact be counterproductive.

In order to secure an uninterrupted gas supply to final consumers more efficient alternatives exist and these are consistent with the objective of creating an efficient single European gas market: a well-balanced mix of interruptible gas supply agreements, availability of commercial storage capacity, spot markets, diversification of supply (including LNG), cooperation between companies at national and international level, energy efficiency, etc..

Within these alternatives GSE deems that developing new commercial storages is key and these are to be promoted by improving the above mentioned areas (regulatory climate, planning permissions and stimulating measures).

GSE is ready to further detail its positions and positively contribute to enhancing EU security of supply also in the frame of the EC Study on Natural Gas Storage.