



To: Peter Sherry  
Senior Economist  
Ofgem  
9 Millbank  
London  
SW1P 3GE

22 February 2011

Reference: STOR-1945

Dear Peter,

**Re: Storengy UK's response to "Gas Security of Supply Significant Code Review (SCR) Initial Consultation"**

Storengy UK welcomes the opportunity to respond to this initial consultation on security of gas supply. Storengy UK is currently developing the Stublach Gas Storage Project, a large salt caverns storage scheme that will contribute to the security of UK gas supply once commissioned in 2013.

**General comments**

It is widely accepted that gas storage facilities located close to consumers dramatically enhance security of gas supply. This is why, in the wake of recent occurrences of major disruptions to their gas supplies, the most affected Central and Eastern European countries have decided either to build more gas storage facilities<sup>1</sup> or to impose further obligations on gas supplies (including gas in store<sup>2</sup>). The EU Commission itself has highlighted the significance of gas storage for security of supply purposes stressing that beyond normal supply and demand peak/non-peak or seasonal conditions, gas storage has also proved its value in more unpredictable and sudden supply crisis. As indicated by the Commission: *"the dependence on storage and its flexibility was clearly demonstrated in January 2009, where most Member States doubled the gas supply from their storages in comparison to January 2008"*<sup>3</sup>

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<sup>1</sup> It is worth noting that these storage projects have been supported by European institutions. For instance, the European Bank for Reconstruction and Development has lent financial support to storage projects in Hungary, Serbia and Croatia and is considering further support to storage projects in Bulgaria and Moldova. The EU Commission (Competition) cleared state aids for storage projects in Poland, invoking, inter alia, positive impact on security of supply.

<sup>2</sup> For instance, newly adopted legislation in Slovakia has transferred the responsibility for the security of gas supplies to gas suppliers (through usage of domestic storage facilities or an ability to guarantee gas supplies via cross-border interconnectors with reverse flow capability).

<sup>3</sup> Commission Staff working document: "Assessment report of Directive 2004/67/EC on security of gas supply (SEC(2009)978 accompanying COM(2009)363), p.22 to 26.

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Since gas storage has proved such an invaluable tool in dealing with physical shortage of gas it is paramount that not only impacts on storage of any change to emergency arrangements are thoroughly assessed but also that the regulatory framework helps foster the development of storage facilities.

It is also worth adding that, although long term supply contracts alleviate potential liquidity and depth issues that may arise in spot markets in an emergency, storage offers a higher degree of physical security of supply compared to long term commercially contracted imports as the gas will already be in the UK at the time of the emergency.

Storengy UK is of the opinion that the pace of this initial consultation process is disconcerting and clearly does not allow enough time to ponder about all the facets of a rather complex issue such as security of gas supply. Since the current gas glut decreases the likelihood of a major disruption to gas supply severely impacting UK gas consumers over the next winter there appears to be no need to rush quick fixes<sup>4</sup>. However, developing new storage facilities and/or negotiating long term gas supply contracts usually take several years. It is therefore paramount that due consideration is given today to security of supply issues with a view to designing the right regulatory framework that will facilitate such long term decisions. Storengy UK believes a holistic approach to security of supply is required and is therefore disappointed to see that, although assurances have been repeatedly given by Ofgem that all options remain open and that obligations remain on the table, there appears to be a clear bias in the consultation document as well as in the workshops feedback towards the reform of the emergency arrangements.

Storengy UK believes that the proposed sharpening of emergency prices will not have a direct and positive impact on storage developers/operators and will not directly provide investors with incentives to develop more storage. Indeed, only storage users are going to benefit immediately and directly from selling their stored gas at the high emergency price. As storage capacity is currently mainly contracted on a short term basis (1 year contract) the storage developer bears a large investment risk in order to make capacity available to the market but will not directly benefit from the "realized value" of that capacity. This asymmetric risk/reward profile gives rise to potential windfalls (this should be addressed either by incentivizing long term storage contracts or some form of remuneration of "capacity availability" paid to storage operators).

As stated in the opening paragraph of the consultation document Ofgem *"has expressed concerns with the ability of the current market arrangements to deliver secure gas supplies over the long term"*. Storengy UK doubts that the effects of amendments to current gas emergency arrangements (i.e. more penal imbalances prices and compensation for interrupted firm customers) would "trickle down" the forward curve and alter the current (lack of) long term investment signal. Storengy UK is of the opinion that, in order to bridge the gap between short term markets and long term investment planning, some form of "explicit insurance"/incentive (including tax)/obligation is required. Such mechanism should be considered in parallel with reform of the emergency arrangements so that the former can be swiftly activated if the latter fails to bring about the changes desired by Ofgem.

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<sup>4</sup> National Grid also stated in its closing seminar presentation that *"changes for Winter 11/12, whilst desirable are not essential."*

### **Chapter 3: Options for reform of the emergency arrangements**

Storengy UK is of the opinion that the proposed amendments to emergency cash-out arrangements and the introduction of a compensation for interrupted firm customers will bring about only marginal (if any) improvements to security of supply; the reasons why we believe so are set out in our answers to Chapter 4 questions.

Storengy UK agrees with National Grid that given the dire consequences of a gas emergency the focus should be on prevention of an emergency. If it is believed that:

- the current arrangements may not deliver secure gas supplies over the long term; and
- the proposed amendments will remedy the deficiency;

then clear changes to current behaviours should become observable shortly after implementation of the new arrangements. It is clear neither in the consultation document nor in the workshops minutes what measurable outcome Ofgem is expecting from such changes. If the mechanism is to be credible its efficiency must be clear and measurable otherwise the ensuing security of supply remains virtual. Non-occurrence of an emergency over the next few years cannot be equated with successful prevention as 49 times out of 50 this is the expected outcome of a 1-in-50 probability. Storengy UK is of the opinion that some form of "explicit insurance"/incentives (including tax)/obligations would be easier to monitor and/or audit and would therefore more directly result in tangible improvements to security of supply.

### **Chapter 4: The potential case for enhanced obligations**

***Questions 1 & 2: Are there any reasons why industry might not respond adequately to sharper price signals, thus delivering sub-optimal security of supply? What are the likely barriers to attracting gas imports during a GDE? Could these be overcome?***

According to its proponents unfreezing the cash-out price would:

- in case of an emergency allow to attract more short term flexible gas to the UK market;
- provide the shippers with further incentives to procure some form of insurance (storage and/or long term contracts). As stated in the minutes of the second workshop *"strong incentives in an emergency would feed back through to a non-emergency situation and provide the market with strong incentives to avoid an emergency arising in the first place. It was suggested that this would encourage the market to insure against such an event arising through investment which could lead to similar results to a less market-based arrangement but at a more efficient cost."*

In order to provide shippers/suppliers with even further incentives to balance out their positions a compensation to interrupted firm customers would be introduced.

Although all these proposals may in theory bring about improvements to security of supply, Storengy UK believes that, in practice, the improvements may be at best marginal:

- compensation is by definition ex-post and contributes therefore only very indirectly to the prevention of an emergency. Furthermore, minutes of the second workshop have highlighted the practical difficulties of ascertaining the right level of compensation (especially for non daily metered customers);
- even in case of a very high price, other practical considerations may prevail and prevent the transaction and the delivery to take place;
- practical issues in delivering physical flexible gas in a one-off extraordinary transaction should not be underestimated. It is, in practice, never easy to secure at very short notice unused

transport capacity on various networks and/or to agree physical swaps in order to physically deliver the gas. Execution risks then become very high and the supplier may potentially be liable for huge imbalances costs;

- suppliers with established supply businesses abroad will not put their business at risk by not complying with their obligations;
- the "trickling down" from spot (or in fact from potentially high spot prices) to forward curve to long term investment signal has always been extremely debatable. In the absence of a strong link, Storengy UK is of the opinion that pinning all hopes on this weak link to provide the right level of security of supply is very risky indeed! Spot prices reflect a market equilibrium for a given set of relatively well known or at least predictable conditions. Decisions based on realizations of a few specific equilibria may turn out to be wrong. Let's assume that, in terms of its fundamentals, a market is just about balanced to cope with a reasonable distribution of weather conditions. If the last few winters were actually warmer than normal then recent historical spot prices will be lower. As market participants (including risks managers) often ascribe a higher weight to closer historical "observations" the value of insurance (such as storage) is likely to decrease and the incentives to subscribe such insurance will also be reduced whilst the risks actually remain the same. This type of behaviour is typical of short term markets and 2008 events in the financial sector have offered a (timely) reminder of the pitfalls of such approach to deal with systemic risks.

Even if the price (or its order of magnitude) in an emergency was known (directly or indirectly "capped" at VOLL) assessing the likelihood of occurrence of an emergency would remain extremely difficult. It is therefore difficult to ascertain correctly the insurance premium.

Storengy UK also finds it highly disturbing to read in the workshops minutes that:

- "... the industry would be very unlikely to account for high impact, low probability events...";
- "... while understanding the desire to encourage market participants to invest in insurance, one attendee argued that no one would invest to insure against a 1 in 50 winter...";
- "... suppliers would be less likely to insure through increased physical investment but would be more likely to purchase a financial insurance product...".

This tends to imply that even if the probability of occurrence of an emergency and the resulting price were known some players would not be prepared to insure against these risks on commercial grounds. In this case, market price signal would no longer be appropriate and other incentives/obligations would be required.

***Question 3: Do you think that the risks associated with sharpening price signals make it necessary to apply additional obligations on relevant parties?***

Storengy UK believes that proper consideration should at least be given to such non price based incentives/obligations and is disappointed Ofgem has made no detailed proposal.

Storengy UK strongly believes any regulatory framework aiming at improving security of supply should take into account the requirements of both the demand side and the supply side of storage capacity in order for the market to deliver storage facilities with the lowest long run marginal cost (which may not be necessarily the quickest to build). Storengy UK is of the opinion that a framework that would encourage long term storage contracts would be beneficial in this respect. Indeed, a reasonable level of long term stable revenues would undeniably facilitate decisions about projects that require large upfront investments and would provide more certainty to storage users.



**Question 4: If enhanced obligations were applied, to whom should they be applied and why?**

This would obviously depend on the type of obligations. However, as this consultation deals with gas shortage rather than lack of transmission/distribution capacity, such obligations would probably apply to suppliers as they are ultimately responsible for the gas supplied to end customers.

**Question 5: How could obligations be designed and enforced?**

Storengy UK would float four conceptual types of obligation:

1. Explicit insurance. A "security of supply indicator" would be calculated for each supplier based on its own gas sourcing and would be monitored/audited. This would allow benchmarking security of supply across suppliers and may provide suppliers with "marketing" incentives to include more explicitly security of supply considerations into their sourcing strategy;
2. Incentives. DECC mulls over some form of capacity payment for the electricity market; similar mechanism could be considered for peak gas and paid directly to storage operators;
3. Tax allowances. In order to provide suppliers with incentives to enter into long term storage contracts, suppliers could be allowed to claim some form of tax allowances if they can demonstrate they have booked long term storage capacity (this would not be detrimental to the public purse as building gas storage facilities in the UK instead of importing flexibility would generate more tax revenues in UK and would be easily monitored and audited);
4. Obligations. To comply with licence obligations suppliers would have to book a certain amount of gas storage capacity based on their global supply. There exist many examples of such obligations across the world and Storengy UK would be happy to discuss this further with Ofgem.

**Question 6: What are the risks and potential unintended consequences associated with placing enhanced obligations on parties to ensure security of supply? Can these be overcome?**

Storengy UK notes that numerous high level analysis have already been carried out and risks and potential unintended consequences of obligations have been listed in several recent reports. However, Storengy UK is not aware of any detailed analysis and believes such analysis would be worthwhile to discard some fantasies and alleviate potentially real concerns. Due consideration should also be given to a proper analysis and understanding of obligations in other markets and/or other countries. However, this type of analysis cannot be performed until the authorities have provided an outline of the possible obligations.

**Technical annex: The value of lost load (VoLL)**

Storengy UK would like to add the following comments regarding the use of VoLL:

- VoLL is a concept that has been used in the electricity industry for several decades (including prior to the advent of markets) to ensure time consistency of decisions between long term investment planning and medium/short term operational management. It is disappointing that the long term component of the theory and the link with short term has been discarded from the consultation;



- the non-storable nature of electricity makes it different to gas. Gas can be stored and the equilibrium calculated in one period will impact the equilibrium of the next period (depending on whether gas has been withdrawn, injected or kept in store);
- VoLL was historically used in long term planning to assess the level of marginal investment in peak power plants needed to cover consumption with a pre-agreed loss of load probability. A parallel could be made with the cost of a developing salt cavern storage mainly for security of supply purpose. Again, it is disappointing that this part has been discarded from the consultation.

We hope that you have found these comments useful. Should you want to discuss the above further please do not hesitate to contact us.

Yours sincerely,

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