

The future of UK Gas Security

Findings of a survey of major energy users
conducted on behalf of:



StagEnergy

Energy Intensive Users Group

August 2011



Introduction

This survey was commissioned by a cross-section of interests involved in the UK gas industry, including the Engineering Employers Federation, the Energy Intensive Users Group, the Chemical Industries Association and companies, Tata Steel and Stag Energy. Case studies have been compiled in order to understand the views of industry experts about Gas security in the UK from different sized gas consuming companies.

Methodology

ComRes surveyed 20 gas security experts from various companies of high gas usage online between 26th May and 26th August 2011. Case studies have been provided to illustrate the results of the survey. The questions asked in the survey have also been provided.

Companies surveyed are major energy users, including those from the manufacturing, engineering, chemical and food industries. A number of the respondents were willing for their participation to be accredited to their company, these include:

- Astrum (UK)
- Durham Foundry
- Growhow
- Ineos
- Outokumpu
- Tata Steel
- W Abrasives

ComRes is a member of the British Polling Council and abides by its rules (www.britishpollingcouncil.org). This commits us to the highest standards of transparency.

The BPC's rules state that all data and research findings made on the basis of surveys conducted by member organisations that enter the public domain, must include reference to the following:

- The company conducting the research (ComRes)
- The client commissioning the survey
- Dates of interviewing
- Method of obtaining the interviews (e.g. in-person, post, telephone, internet)
- The universe effectively represented (all adults, voters etc)
- The percentages upon which conclusions are based
- Size of the sample and geographic coverage.

Published references (such as a press release) should also show a web address where full data tables may be viewed, and they should also show the complete wording of questions upon which any data that has entered the public domain are based.

All press releases or other publications must be checked with ComRes before use. ComRes requires 48 hours to check a press release unless otherwise agreed.



Questions

Q1. What is your company's annual gas consumption (in therms)?

Q2. What is your company's daily peak demand (in therms)?

Q3. How important, or otherwise, are each of the following factors in delivering greater security of gas supply in Britain?

Please rate on a scale of 1 to 5, where 1 = not very important and 5 = very important. Mean scores have been calculated to aid analysis

Increasing the UK's LNG import capacity

Increased long-term gas supply contracts

Implement requirement for all gas supply contract obligations to be firm by removing Force Majeure clauses

Additional gas storage facilities

Demand side management

Q4. UK gas storage capacity is equivalent to 4% of annual gas demand, compared to 20% and 25% in Germany and France respectively. To what extent do you agree or disagree that this provides sufficient contingency against potential disruptions to supply?

Agree strongly

Agree

Disagree

Disagree strongly

Q5. Do you think that the current gas security/market balancing arrangements need changing or should they remain as they are?

Q6. Are you aware of OFGEM's Energy Security Significant Code Review (SCR) or not?

Q7. Under the SCR, Ofgem is proposing to increase penalties for shippers short of gas during a supply emergency. Do you think the gas balancing rule changes (and associated imbalance financial penalties) currently proposed by OFGEM's SCR will achieve greater gas supply security or not?

Q8. A PSO would be a regulatory requirement for gas suppliers to have sufficient contingency reserves to continue to supply their customers in the event of disruption. Would you support or oppose establishing an enhanced storage Public Service Obligation (PSO) framework in addition to the gas balancing rule changes being proposed under the SCR?

Q9. Should the UK Government set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes?



Q10. If a PSO framework were to be established, which of the following do you think should be required to hold gas in storage?

Licensed Suppliers - Domestic

Licensed Suppliers - Industrial & Commercial

Licensed Suppliers - Large Industrial

Licensed Shippers - at the National Balancing Points

Licensed Shippers - at NTS Entry Points

Licensed Shippers - at NTS Exit Points

The System Operator

Other (please specify)



Overall points

- All of the companies tested disagree that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.
- Most of the companies surveyed said that they think increasing the UK's LNG import capacity, and having additional gas storage facilities are important factors in delivering greater security of gas supply.
- Most of the companies tested think that the UK Government *should* set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes.

Case study 1

Annual gas consumption (therms): 500,000

Daily peak demand (therms): N/A

This manufacturing company thinks that 'implementing requirements for all gas supply contract obligations to be firm by removing Force Majeure clauses' is not important in delivering greater security of gas supply in Britain. However, the company does think that 'additional gas storage facilities' are very important and that 'demand side management' is important in delivering greater security of gas supply in Britain.

The company 'disagrees strongly' that UK gas storage capacity provides sufficient contingency against potential disruptions to supply. The organisation also thinks that the current gas security/market balancing arrangements need changing.

The organisation supports establishing an enhanced storage Public Service Obligation framework in addition to the gas balancing rule changes being proposed under the SCR, and it thinks that the Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes.

The company thinks that if a PSO framework were to be established, the following should be required to hold gas in storage: large industrial licensed suppliers; licensed shippers at the National Balancing Points and NTS entry points; and the system operator.

Case study 2

Annual gas consumption (therms): 105,120,000

Daily peak demand (therms): 780

This chemical industry company thinks that increasing the UK's LNG import capacity is 'very important' in delivering greater security of gas supply in Britain - it places the same level of important on 'increased long-term gas supply contracts', and 'additional storage facilities'.



The organisation is also of the opinion that 'implementing requirements for all gas supply contract obligations to be firm by removing Force Majeure clauses' is important in delivering greater security of gas supply in Britain.

It 'disagrees' that UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

It believes that the current gas security / market balancing arrangements are suitable / adequate. The company supports establishing an enhanced storage Public Service Obligation (PSO) framework in addition to the gas balancing rule changes being proposed under the SCR.

The company thinks that the Government should set a target for new storage capacity for Ofgem to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes.

The company thinks that if a PSO framework were to be established, just the system operator should be required to hold gas in storage.

Case study 3

Annual gas consumption (therms): 458,630

Daily peak demand (therms): 2,730

This manufacturing business thinks that 'increasing the UK's LNG import capacity' is 'very important' in delivering greater security of gas supply in Britain – the company places the same level of importance on increased long-term gas supply contracts. They also think that 'implementing requirements for all gas supply contract obligations to be firm by removing Force Majeure clauses' is important in delivering greater security of gas supply in Britain.

The company believes that additional gas storage facilities, and demand side management are important in delivering greater security of gas supply in Britain.

The organisation 'disagrees strongly' that UK gas storage capacity provides sufficient contingency against potential disruptions to supply. It thinks that the current gas security/market balancing arrangements need changing.

The company supports establishing an enhanced storage Public Service Obligation framework in addition to the gas balancing rule changes being proposed under the SCR – it thinks that the Government should set a target for new storage capacity for Ofgem to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes.

This company thinks that domestic, industrial, commercial and large industrial licenced suppliers should be required to hold gas in storage if a PSO framework were to be established.



Case study 4

Annual Gas consumption (therms): 1,863,132
Daily peak demand (therms): 8,417

This manufacturing company thinks that each of the factors tested in the survey are 'very important' in delivering greater gas security. They also 'disagree strongly' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

This organisation is of the opinion that the current gas security/market balancing arrangements need changing.

The company **is** aware of OFGEM's Energy Security Significant Code Review (SCR), but **do not** think the gas balancing rule changes currently proposed will achieve greater gas supply security. Indeed they **support** the establishing of an enhanced storage PSO framework in addition to the gas balancing rule changes being proposed under the SCR.

The organisation also thinks that the UK Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes.

Finally, the company thinks that just industrial and commercial licenced suppliers, and large industrial licenced suppliers should be required to hold gas in storage, if a PSO framework were to be established.

Case study 5

Annual Gas consumption (therms): 250,000,000
Daily peak demand (therms): 200,000

This distribution and manufacturing company thinks that increasing the UK's LNG import capacity is 'very important' in delivering greater security of gas supply in Britain – it places the same level of importance on additional gas storage facilities. It also thinks that increased long-term gas supply contacts are important, but feels that implementing requirements for all gas supply contact obligations to be firm by removing Force Majeure clause are neither important nor unimportant.

The only factor that this company considers to be unimportant is demand side management.

The organisation 'disagrees strongly' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply. Indeed, the organisation is of the opinion that the current gas security/market balancing arrangements need changing.

The company **is** aware of OFGEM's Energy Security Significant Code Review (SCR), but **does not** think that the gas balancing rule changes currently proposed will achieve greater gas supply security. It also thinks that the UK Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes.



Case study 6

Annual gas consumption (therms): 10,000,000
Daily peak demand (therms): 45,000

This company, in the chemical industry, thinks that increasing the UK's LNG import capacity is 'very important' in delivering greater security of gas supply in Britain. It also thinks the same about long-term gas supply contracts and implementing requirements for all gas supply contract obligations to be firm by removing Force Majeure clauses.

Additional gas storage facilities are seen by the company to be 'very important' in delivering greater security of gas supply in Britain. However, demand side management is neither felt to be important nor unimportant in delivering greater security of gas supply in Britain.

The company 'disagrees strongly' that UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

It is aware of OFGEM's Energy Security Significant Code Review (SCR), but does not think that the current gas balancing rule changes (and associated imbalance financial penalties) currently proposed by OFGEM's SCR will achieve greater gas supply security

The company supports establishing an enhanced storage Public Service Obligation framework in addition to the gas balancing rule changes being proposed under the SCR, and it thinks that the Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO, in the event that this new gas storage target is not incentivised by the suggested balancing rule changes

It thinks that domestic, industrial, commercial and large industrial licenced suppliers should be required to hold gas in storage if a PSO framework were to be established, as well as Licenced Shippers at NTS Exit points

Finally, the company commented that: *'We face product and safety risk in the event of a gas emergency as in our region we would be one of the first to be called off, but receive no compensation. Within reason it would be worth an additional cost to ensure gas security. This hopefully would subdue some of the price risk in days ahead or within days at times of shortages. For some companies they are able to switch off consumption at short notice, we are not able to because of the long treatment cycles (sometimes weeks) used in our heat treatment furnaces.'*

Case study 7

Annual Gas consumption (therms): 85,000,000
Daily peak demand (therms): 546,572

This company is of the opinion that implementing a requirement for all gas supply contract obligations to be firm by removing Force Majeure clauses is 'not very important', while demand side management is perceived to be 'very important'.



This company '**disagrees strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

For the remaining questions referring to security market balancing arrangements and issues surrounding OFGEM, this company indicated that it does not have an opinion.

Case study 8

Annual Gas consumption (therms): 126,860

Daily peak demand (therms): N/A

This company thinks that each of the following are important factors in delivering greater security of gas supply to Britain: increasing the UK's LNG import capacity; additional gas storage facilities; and demand side management.

This company '**disagrees**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

While the company is **not** aware of OFGEM's Energy Security Code Review, it does agree that the gas balancing rule changes currently proposed will achieve greater gas supply security. It also supports the establishing of an enhanced storage Public Service Obligation framework.

If a PSO framework were to be established, the company thinks that each of the following should be required to hold gas in storage: industrial and commercial licenced suppliers, large industrial licenced suppliers, licenced shippers at National Balancing Points, and licenced shippers at NTS Entry, as well as at NTS Exit Points.

Case study 9

Annual Gas consumption (therms): 211,000,000

Daily peak demand (therms): 720,000

This company, in the manufacturing sector, thinks that each of the following are very important factors in delivering greater security of gas supply to Britain: increasing both the UK's LNG import capacity and long-term gas supply contracts; and additional gas storage facilities.

The company '**strongly disagrees**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply. They think that the current gas security/ market balancing arrangements need changing.

This company is aware of OFGEM's Energy SCR but do not think that the gas balancing rule changes proposed by the SCR will achieve greater gas supply security.

It supports establishing an enhanced storage PSO framework in addition to the proposals in the SCR and thinks that the Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO.



If a PSO framework were to be established, the company thinks domestic licenced suppliers should be required to hold gas in storage.

Case study 10

Annual Gas consumption (therms): 42,000,000

Daily peak demand (therms): 166,000

This company thinks that implementing a requirement for all gas supply contract obligations to be firm by removing Force Majeure clauses and additional gas storage facilities are important for delivering greater security of gas supply in Britain, while increasing long-term gas supply contracts is unimportant.

This company '**disagrees strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They support establishing an enhanced storage PSO framework in addition to the gas balancing rule changes being proposed under the SCR.

If a PSO framework was established they would want licensed shippers at both the National Balancing Points and NTS Entry Points to be required to hold gas in storage.

Case study 11

Annual Gas consumption (therms): 800,000

Daily peak demand (therms): 4,000

The company thinks demand site management and increasing the UK's LNG import capacity are important for delivering greater security of gas supply in Britain, while increasing long-term gas supply contracts is unimportant.

They '**disagree**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply and think that the current gas security/ market balancing arrangements are adequate as they are.

They are aware of OFGEM's Energy SCR and think that the gas balancing rule changes currently proposed will achieve greater gas supply security. However, they oppose the establishment of an enhanced storage PSO framework in addition to the proposed gas balancing rule changes.

This company think that only the System Operator should be required to hold gas in storage.

Case study 12

Annual Gas consumption (therms): 27,500,000

Daily peak demand (therms): 100,000

This company thinks increasing the UK's LNG import capacity and long-term gas supply contracts and additional gas storage facilities are important for delivering greater security of gas supply in Britain, while increasing long-term gas supply contracts is unimportant.



This company '**disagrees strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They think that the current gas security/ market balancing arrangements need changing. They would support establishing an enhanced storage PSO framework in addition to the gas balancing rule changes.

This company thinks that domestic, industrial and commercial and large industrial licensed suppliers should be required to hold gas in storage.

Case study 13

Annual Gas consumption (therms): 60,000,000

Daily peak demand (therms): N/A

This company thinks that increasing the UK's LNG import capacity, additional gas storage facilities and demand site management are all important in delivering greater security of gas supply in Britain.

This company '**disagrees strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They are aware of OFGEM's Energy SCR and don't think that the gas balancing rule changes currently proposed by the SCR will achieve greater gas supply security.

They support establishing an enhanced storage PSO framework, but think that the UK Government should not set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO.

This company thinks that licensed shippers at both NTS entry and exit points should be required to hold gas in storage.

Case study 14

Annual Gas consumption (therms): 1,273,908

Daily peak demand (therms): 5539

This company thinks that increasing the UK's LNG import capacity and long-term gas supply contracts, implementing requirement for all gas supply contract obligations to be firm by removing Force Majeure clauses, additional gas storage facilities and demand site management are all important in delivering greater security of gas supply in Britain.

This company '**disagrees strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They think that the current gas security/ market balancing arrangements need changing. They would support establishing an enhanced storage PSO framework in addition to the gas balancing rule changes and think that the Government should set a target for new storage capacity.



This company thinks that all seven stated options should be required to hold gas in storage.

Case study 15

Annual Gas consumption (therms): 2,363,000

Daily peak demand (therms): N/A

This company think that increasing long-term gas supply contracts and additional gas storage facilities important in delivering greater security of gas supply in Britain, while demand side management is not.

This company '**disagrees strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They think that the current gas security/ market balancing arrangements need changing. They would support establishing an enhanced storage PSO framework in addition to the gas balancing rule changes and think that the Government should set a target for new storage capacity.

This company thinks that large industrial licenced suppliers and licenced shippers at NTS exit points should be required to hold gas in storage.

Case study 16

Annual Gas consumption (therms): 35,500,000

Daily peak demand (therms): 111,000

This manufacturing company thinks that increasing the UK's LNG import capacity and long-term gas supply contracts, implementing requirement for all gas supply contract obligations to be firm by removing Force Majeure clauses, additional gas storage facilities and demand site management are all important in delivering greater security of gas supply in Britain.

They '**disagree strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

The company thinks that the current gas security/ market balancing arrangements need changing. They are aware of OFGEM's Energy SCR and would support establishing an enhanced storage PSO framework in addition to the gas balancing rule changes being proposed under the SCR. Furthermore, they think that the Government should set a target for new storage capacity for OFGEM.

This company thinks that licenced suppliers at the National Balancing Points and licenced shippers at NTS exit points should be required to hold gas in storage.

Case study 17

Annual Gas consumption (therms): 29,000,000

Daily peak demand (therms): 90,000



This company thinks that each of the following are important factors in delivering greater security of gas supply to Britain: increasing both the UK's LNG import capacity and long-term gas supply contracts; and additional gas storage facilities.

This company '**strongly disagrees**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They are aware of OFGEM's Energy SCR and don't think that the gas balancing rule changes currently proposed by the SCR will achieve greater gas supply security.

They support establishing an enhanced storage PSO framework and think that the UK Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO.

This company thinks that licenced shippers at NTS exit points and the system operator should be required to hold gas in storage.

They added: "A secure energy supply is essential for the efficiency of manufacturing in the UK. A momentary loss of energy supply can cause significant production losses due to start up procedures of particular processes. Perhaps until suppliers are prepared to accept desired contractual clauses from the customer to cover consequential loss, then they will do little to reinforce supply systems and continue to write off supply disruption to "force majeure". Social factors also come into play if supply disruption is significant in duration and production processes can no longer meet consumer demand for essential goods. Commodity prices are continuing to rise and the consumer is looking for greater return in the supply package rather than to see greater cash flow swell already exuberant profits of energy supply companies. One of these factors could be reliability."

Case study 18

Annual Gas consumption (therms): 14,500,000

Daily peak demand (therms): 92,000

This company thinks that increasing the UK's LNG import capacity and additional gas storage facilities are important factors in delivering greater security of gas supply to Britain.

This company '**strongly disagrees**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They are aware of OFGEM's Energy SCR and think that the gas balancing rule changes currently proposed by the SCR will achieve greater gas supply security. They think that the UK Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO.

They think that licenced shippers at NTS exit points should be required to hold gas in storage.



Case study 19

Annual Gas consumption (therms): 120,000,000
Daily peak demand (therms): 550,000

This company thinks that increasing long-term gas supply contracts, implementing requirement for all gas supply contract obligations to be firm by removing Force Majeure clauses, additional gas storage facilities and demand side management are all important factors in delivering greater security of gas supply to Britain.

This company '**disagrees**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply.

They think that the current gas security/ market balancing arrangements need changing and would support establishing an enhanced storage PSO framework. They also think that the Government should set a target for new storage capacity for OFGEM to use as a benchmark to activate the framework PSO.

This company thinks that the following should be required to hold gas in storage: domestic, industrial, commercial and large industrial licenced suppliers, and licenced shippers at the National Balancing points and at both NTS entry and exit points.

Case study 20

Annual Gas consumption (therms): 4,000,000
Daily peak demand (therms): 30,500

For this manufacturing company, the most important factors in delivering greater security of gas supply in Britain are having additional gas storage facilities and increasing the UK's LNG import capacity.

This company '**disagrees strongly**' that the current UK gas storage capacity provides sufficient contingency against potential disruptions to supply and they believe that the current gas security/ market balancing arrangements need to change.

They don't believe that the proposals from OFGEM's SCR will achieve greater gas supply and would support an additional PSO framework in addition to the gas balancing rule changes. If established, the company thinks that licensed shippers at the National Balancing Points and the system operator should have responsibility for holding gas in storage.

Finally, they comment that for their company an instant shutdown in the hot metal section of the company is impossible without putting personnel at risk and therefore security of supply is very important for them.