Ofgem Initial Consultation – Gas Security of Supply SCR
AEP[1] Comments

The Association welcomes the opportunity to comment on this consultation. We provide some general remarks, some observations regarding process in Appendix 1, some analysis in Appendix 2, some further thoughts on demand side response in Appendix 3 and below further comments to the specific questions.

The Association has a particular interest in gas security of supply as gas-fired generation accounts for a growing fraction of electricity generating capacity and a larger fraction of total electricity generated. It is also seen as having an important role in the transition to a low carbon power sector. We consider it is appropriate to review these arrangements at a time when the supply / demand situation seems relatively benign[2] with no looming crisis, enabling a full and considered exploration of issues, options and consequences to take place. As such we do not feel it is necessary to hurry to implement a solution before next winter. We are also mindful of the recently approved EU Regulation 994/2010[3] concerning measures to safeguard security of gas supply.

In this context we recognise the substantial market-driven investment that has taken place in response to the anticipated decline in gas supplies from UKCS fields. This in turn has delivered security of supply as demonstrated by the market response to within day gas balancing alerts in January 2010 and day ahead alerts in December 2010, where December 2010 was the coldest December for 100 years[4] and saw six of the highest gas demands ever recorded. We think this demonstrates that the market has worked well even when experiencing sustained periods of record demand.

An important part of this review will be to establish what level of security of supply the UK currently has and what level it should have. We understand that the UK is likely to meet the infrastructure and supply standards of the EU Regulation 994/2010 without

[1]The Association of Electricity Producers (AEP) represents large, medium and small companies accounting for more than 95 per cent of the UK generating capacity, together with a number of businesses that provide equipment and services to the generating industry. Between them, the members embrace all of the generating technologies used commercially in the UK, from coal, gas and nuclear power, to a wide range of renewable energies.

[2] Statutory Security of Supply report Nov 2010
http://www.decc.gov.uk/assets/decc/What%20we%20do/UK%20energy%20supply/resilience/803-security-of-supply-report.pdf

[3] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:295:0001:0022:EN:PDF

[4] http://www.metoffice.gov.uk/news/releases/archive/2011/cold-dec

further investment, so how much more is needed? And at what cost to consumers? Also whether it is possible to assess whether if the UK were to have higher security standards than neighbouring Member States, in the event of a regional EU emergency, it would be expected to support other Member States until the level of security were to be equalised. The review will also need to be mindful of other requirements of the Regulation.Whilst we recognise that DECC is the Competent Authority with overall responsibility for implementing the Regulation, we call for a joined up approach to ensure robust and stable arrangments consistent with the Regulation rather than this review beeing soon followed by another to ensure compliance.

It is fair to say that there are diverse views across the industry of the need for change, however we acknowledge the coalition government position and the powers to be granted to Ofgem via the Energy Bill. This is clearly sending the industry a strong message that the government considers some change is necessary. In this context we would encourage incremental rather than wholesale changes and would be wary of making too many changes simultaneously that might impact market liquidity and competition in supply. We also consider measures to prevent an emergency should be given at least equal weight as measures which would apply in an emergency, in the hope and expectation that such measures would help to avoid an emergency. The latter may or may not have the desired effect, which cannot be judged with any certainty since the probability of an emergency arising from inadequate gas supplies, rather than a catastrophic failure, will remain low - whereas the former could deliver something more tangible. However, any measures are likely to incur costs, direct or indirect, which will ultimately be borne by customers at a time when there are other upward pressures on consumer prices. We recognise that trying to quantify the costs and benefits will be challenging, but that it will be necessary to ensure that an undue burden is not placed on consumers where the benefit is unclear or intangible.

CHAPTER 3: Options for reform of the emergency arrangements
Question 1: Have we captured the appropriate range of options for reform of the gas emergency arrangements? Are there other options that should be considered?

The Association notes that Ofgem has identified three combinations of the elements of emergency arrangements that might be the subject of reform. Other combinations are possible and it may be appropriate to contemplate different arrangements for different types of emergencies. Measures to promote or formalise demand side response could or should be included with any of the three options, or, as part of any new combination of the elements or other alternative. We could envisage such arrangements being an extension of the existing arrangements which are triggered once a GBA is called. We have assessed that in 2012 there is expected to be around 240 mcm daily metered demand on the system on the peak day on an undiversified peak demand basis and 156 mcm on a peak diversified demand day. Of this 142 mcm and 97 mcm respectively is from NTS connected power generation, demonstrating significant potential for demand side response from this sector, albeit the impact on the electricity market will need to be considered. Some further thoughts are included at Appendix 3. The

Association would be happy to participate in any meetings to develop such arrangements.

The Association also considers that there could be merits in having different arrangements for different types of emergency. A 'slow–burn' emergency seems to fit best with the concepts and principles discussed in this consultation document, where there is a slow decline into emergency arrangements which have been anticipated some time in advance of an emergency being declared. Effectively the market would have reached a limit beyond which it can no longer respond. An alternative scenario is where an emergency develops very rapidly, perhaps progressing from a within day GBA to stage 2 during the same day. In such circumstances there will be very limited time for any market response, we consider that there should potentially be different arrangements that apply in a rapid emergency as opposed to a slow-burn emergency.

The Association considers that measures to address potential loss of import due to gas quality issues at Bacton should be explored. Whilst historically IUK has not flowed at its full 74mcm import capacity it would be unfortunate if, at high demand levels, import via IUK and BBL were curtailed due to gas quality reasons, particularly when it would be an event that could have been reasonably foreseen in advance and preventable. We consider steps to avoid this should be included in any impact assessment, with costs and benefits assessed against or in combination with other options.

Question 2: Of the three options presented, which do you prefer? Why?

We are not convinced that any of these options presents a workable alternative to the current arrangements that would deliver a credible improvement in security of supply.

We provide a summary of initial thoughts against the elements with further discussion detailed elsewhere in this response.

> *Shipper to shipper trading*: we can see no reason to suspend this, trading should be maintained to enable shippers to manage their balance positions as best they can and facilitate price discovery
>
> *Cash out price*: There may be a role for a dynamic cashout price in a slow burn emergency but then pre-emergency cashout price would be expected to be high, so the risk of prices freezing at a low level is very low. In a rapid emergency it may be appropriate to freeze the cashout prices at least initially whilst the crisis situation is assessed. It may be appropriate for the Panel to have a role here, a concept already used in the electricity market. It may then be appropriate to unfreeze prices – again the Panel could have a role here.
>
> *Post Emergency Claims*: may not be needed with dynamic cashout, but may have an ongoing role in a rapid emergency if prices were frozen.

VOLL: Would be complex to determine appropriate values, may not be needed for daily metered customers who could use sell-back arrangements or offer pre-emergency demand reduction (if this were progressed). VOLL could provide a useful cap to cashout prices, but we have concerns over compensation at VOLL

NGG Role: Unchanged from now – except potentially securing pre-emergency demand reduction contracts either directly or via the shippers.

NEC role: Unchanged from now

Compensation: Concerns over liabilities, targeting vs socialisation and being an undue burden.

We hope that Ofgem engages further with the industry over any new options, or refinement to existing ones, prior to determining which options go forward for assessment in the impact assessment; else there is a risk that unintended consequences may arise late in the process. We would expect further consideration of the potential for pre-emergency demand reduction contracts, gas quality issues, credit, force majeure and whether the existing arrangements such as ECQ and P70 are compatible with any proposals and persist or are no longer needed.

Question 3: What is the appropriate role for NGG in an emergency?

NGG's role should be to act on instructions from the NEC and manage the safe operation of the system, commercial considerations being secondary. It is also difficult to reconcile the NEC having powers to maximise domestic flows at stage 2 and firm load shedding at stage 3 with continuing to take market balancing actions which set cashout. On a practical note before these stages NG could place locational bids on the OCM.

We would not anticipate firm load shedding being linked to price, rather it would be driven by safety considerations and the need to maintain adequate pressure in the networks. If pre-emergency demand reduction contracts were utilised we would envisage the exercise price feeding into cashout.

We do not envisage NGG being the sole purchaser of gas from non-domestic sources, since it does not have the relevant contacts with possible supplier companies nor expertise in this area.

Question 4: Do you have any comments on our initial assessment of the pros and cons associated with each option?

There were extensive discussions on these at workshop 1. Clearly, further thought needs to be given to the issues raised there, particularly shipper credit and trading limits and force majeure. There needs to be greater recognition of the physical nature of an emergency.

Question 5: Are there any safety case implications associated with each option?

The Association expects there would be NEC safety case revisions necessary if option 1 were to be implemented, where the NEC would no longer be able to instruct maximum flows from domestic sources. Given that the hurdle for safety case revisions is to demonstrate that the system is at least as safe as the current arrangements, it is not clear to us how this could be demonstrated such that this backstop power could be removed. This is even taking account of normal commercial drivers to increase supplies in response to prices escalating prior to and during stage 1 of an emergency.

Question 6: What benefits would dynamic cash-out bring relative to the post emergency claims arrangements?

Dynamic cashout in a slow- burn emergency could bring benefits of greater certainty in recovery of costs associated with incremental supply or demand reduction than the post emergency claims arrangements which are less certain and less timely in any revenues being received.

CHAPTER 4: The potential case for enhanced obligations

Question 1: Are there any reasons why industry might not respond adequately to sharper price signals, thus delivering sub-optimal security of supply? How could these be overcome?

This seems to suggest that we currently have sub-optimal security of supply without evidence being presented to demonstrate this is the case. Also that current price signals are not sharp enough. It is not clear here whether the document is referring to sharper price signals during an emergency or under normal operations. The cashout arrangements under normal operations will need to be consistent with the EU balancing Framework Guidelines which are broadly similar to the current arrangements.

In a slow-burn emergency under the current arrangements it would be reasonable to expect prices to rise as the supply / demand situation tightens, hence creating the sharper price signals. For customers directly exposed to short term prices this would lead to some voluntary load reduction. Through the winter of 2005-06 when prices were high, CCGT load was reported to be 20-25mcm lower than would otherwise have been expected and there was also some industrial demand reduction. Similarly gas would be attracted to markets with higher prices, so long as there is a route to market.

We would not anticipate that any party would take actions deliberately to precipitate an emergency; the reputational risk of this being revealed would be a very strong incentive to avoid that. A simple reason why industry may not respond to sharper price signals may be that parties have already taken as much action as could reasonably be expected, but there could be scenarios where this is insufficient, for example

infrastructure constraints or failures, gas quality issues, LNG tankers being unable to berth or otherwise unavailable.

Question 2: What are the likely barriers to attracting gas imports during a GDE? Could these barriers be overcome?

Potential barriers would not only include price but also non-price issues identified at the end of the comments to the previous question. Also, even if LNG were to divert to the UK there may well be a time delay before the tanker arrives.

There may be further issues if the UK were to be in an emergency as part of a wider EU regional or union wide emergency, particularly where other Member States have Public Service Obligations (PSOs). However the full impact of these is not well understood but it is hoped that requirements to publish these under Article 5.1(g) of EU Regulation 994/2010 will help to understand the potential impact of these. This Regulation may also provide some comfort if there were to be a regional or Union wide emergency in that the Commission will *ensure the consistency and effectiveness of action at Member State and regional level in relation to the Union level* (Art 11.3 (b)). Also at para 5 *Competent Authorities ensure that no measures are introduced which unduly restrict the flow of gas within the internal market at any time.... no measures are introduced that are likely to endanger seriously the gas supply situation in another Member State.* However these measures may also lead to the UK being drawn into a wider EU emergency and exporting to support EU demand as happened during the last Russia – Ukraine crisis. As noted in the opening remarks if the UK had higher security standards it may have to do this until there is 'equal pain', but it would be UK customers who would have to carry the cost burden of higher UK security standards.

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

The Association considers that this issue needs careful consideration to avoid there being multiple incentives and obligations with complex interactions which makes managing the risks challenging, potentially leading to increased costs without necessarily increasing security of supply to consumers.

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

There may be merits in placing obligations on NG to contract for pre-emergency demand reduction. This could be a practical measure which would deliver a quantifiable tool to help prevent an emergency.

Question 5: How could obligations be designed and enforced?

This should be considered if it is determined that obligations are appropriate, but would need careful consideration since there are many types of shipper / supplier in the UK

with a wide range of customer portfolios and contracting strategies. During the workshops Ofgem explained how it had faced challenges in interpreting the contract data provided by shippers so monitoring and enforcement would have to be addressed explicitly.

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?

In the absence of specific proposals for obligations, it is difficult to comment here but being mindful of suggestions regarding storage or long term contracting obligations, the Association has concerns that placing obligations on shipper/ suppliers could sterilise part of the storage capability, risk distorting the market and have a detrimental impact on liquidity. Any prescription of how shippers should contract would risk losing the diversity of contracting arrangements that currently exists and be detrimental to competition overall.

CHAPTER 5 Criteria for assessing options and next steps

Question 1: Have we captured the feasible range of costs and benefits for inclusion in an impact assessment?

The Association considers that, additionally the impact on customers should be assessed by different types of customers with an assessment of distributional effects; who benefits, who pays.

The impact on the electricity market should not be limited to supply and demand but also whether frequency response capability, balancing and reserve are affected.

The potential to avoid an emergency should be an explicit criterion.

Technical Annex – the value of lost load (VOLL)

The Association notes that customers are indifferent as to the cause of the failure of their gas supply, so in principle any compensation payments for loss of supply for any reason should be aligned. However, we have reservations over the use of VOLL to determine compensation to customers. Whilst firm load shedding should not be a free option, serious consideration should be given to the financial consequences of potential scenarios and the likelihood of financial distress and litigation. We do not consider that any company in the industry would risk the reputational damage of being seen to cause, or, not do everything it possibly can to mitigate or avoid an emergency. Whilst the probability of an emergency remains very low any change to the arrangements may have limited impact on supply security which is currently very good. Therefore the use of VOLL for compensation may be seen as an unmanageable risk, which does not alter

non-emergency behaviour, but, potentially creates an undue burden on industry players - this may be contrary to EU Regualtion 994/2010 Article 5.3.

Question 1: Would it be appropriate to have multiple administrative VoLL settings for different customer groups? Why/ why not? How are VoLL estimates likely to vary between customer groups?

If VOLL were to be implemented for all customers, then determining realistic values could be very resource intensive. We would expect VOLL to vary by customer type / industry, and time of year.

VOLL may also become a target for cashout prices, with daily metered customers reluctant to consider sell back, or, participate in demand reduction arrangements, prior to firm load shedding for lower value returns.

Footnote 25 contemplates translating an energy value into a fixed payment per customer, by type of customer. Whilst simplifying the arrangements this would seem to run counter to the principle of compensating customers for their loss of load which would vary according to the load size within a customer group.

Question 2: For a customer group, how should we determine where in the range of estimates (i.e. VoLLmax, VoLLaverage or VoLLmin) we should apply a single administrative VoLL setting?

Issues of complexity need to be considered here. For customers that cannot offer demand reduction, there would be benefits of simplicity in a single value.

Question 3: Should the compensation payments to disconnected firm customers (based on VoLL) change with the duration of the interruption and the season in which the interruption occurs?

To provide realistic compensation then, yes, these should vary with duration and season. From a CCGT perspective VOLL would be influenced by many factors; spare capacity, market liquidity and depth, availability and price of alternative fuels.

Question 4: What are the advantages and disadvantages of various methods for estimating VoLL?

The Association does not have a view on these methods

Question 5: What sort of compensation arrangements should be used to apportion the costs of compensation between shippers?

It is easy to say that short shippers should fund the compensation payments since these parties ‘caused’ the emergency. However in an emergency scenario where there is likely to be a complex multiplicity of events, shippers may be short through infrastructure

failure or contracts not being honoured. Such targetting may place an undue burden on short shippers which could cause them financial distress or collapse. It may even be the case that, although they were short, they had made adequate provision to supply their customers, but, through no fault of their own, these arrangements did not deliver.

It is also possible to envisage a scenario where shippers are generally in balance, yet a large number of customers are isolated. In such circumstances there would be no short shippers to fund the compensation. This may lead to socialisation of costs which creates further issues where parties have invested to secure supplies to their customers but still end up paying a share of compensation to customers in general. This creates a moral hazard effect and could reduce incentives to secure gas supplies.

Further complexities may arise over who should be responsible for compensation if there were a prolonged period of customers being isolated, but, supplies are adequate to supply them if they could be restored safely in a timely manner.

In this context it is interesting to note that the EU Regulation 994/2010 at Article 10.1 (l) contemplates compensation for shippers for making gas availble but not for customers, even though a variety of demand side measure are identified in annex II and III.

22 February 2011

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Appendix 1 – Comments on SCR Process

The Association has concerns over the process to date, particularly if this were to become a model for future reviews. The timescale between issuing the initial consultation document, holding two seminars and three workshops has been very short and challenging. In our view, the processes have been inconsistent with good practice and the code of practice that Code Administrators are supposed to follow. We do not see why Ofgem should not apply similar rigours to its own meetings. Although meeting dates and themes were set in advance, detailed agendas were only made available just prior to meetings and minutes of previous meetings were not always available prior to the next meeting and were not available to non-workshop parties until much later. For a representative body such as the Association, this makes consulting with members and providing feedback from meetings particularly challenging.Our members have reported similar issues within their companies.

The selective nature of invitations to the workshops also gives us some concern that parties may feel excluded; notes of meetings or feedback from other representatives is always a poor substitute for 'being there'. We would favour open meetings and would expect numbers to be self-limiting given the workload and other commitments. However, we do recognise the value of round table discussions as oppposed to a conference-style format, as this enables greater participation and exploration of the issues. This is a positive from the workshops; all participants contributed to each meeting and a wide range of issues were discussed. That said, there are a lots of issues to be considered and its now not clear how some issues will be explored in more detail, or developed further, prior to Ofgem issuing a Draft Decision in May /June. We would urge Ofgem to consider further industry engagement to reduce the risk of issues and interactions leading to unintended consequences later in the process.

Appendix 2 – Estimated Daily Metered Demand on Peak Day in 2012 /13

Total system undiversified demand at 1 in 20 peak – 6303 GWh, 573 mcm

	1 in 20 peak undiversified demand GWh (mcm)	Data Source
NTS power	1566 (142)	2011 TYS fig 3.5B & Appendix 2 data
NTS ind	121 (11)	"
NTS Moffatt	273 (24)	"
NTS Total	**1959 (178)**	"
SGN DM Firm	120	SGN Long term development statement 2010
W&W DM Firm	139	W&W Long Term development statement 2010 – calculated from annual demand using 60% load factor
NGN Large and very large users*	125	NGN Long term development statement 2010 – calculated from annual demand using 60% load factor
NGD Large and very large users*	301	NGD Long term development statement 2010 – calculated from annual demand using 60% load factor
DN Total	**685 (62)**	
NTS and DN total	**2644 (240)**	

*assumes all daily metered

Total system diversified demand at 1 in 20 peak – 5518 GWh, 502 mcm

	1 in 20 peak diversified demand GWh (mcm)	Data Source
NTS power	1071 (97)	2011 TYS Appendix 2 data
NTS ind	88 (8)	"
NTS Moffatt	95 (9)	"
NTS Total	**1254 (114)**	"
DN DM	**455 (41)**	"
NTS and DN total	**1709 (156)**	

Appendix 3 – Further thoughts on demand side contracts

This section seeks to highlight some issues for further consideration rather than establish a perticular viewpoint at this stage.

Contracting party

If NG were the contracting party:

● Could be seen as a legitimate extension of the existing arrangments that can be called during a GBA

● Customers may be more comfortable with contracting with NG and having certainty that such contracts would only be called once a GBA was issued.

● NG may not feel well placed to agree such contracts absent regular contact with customers.

● Communication chains in the event of exercise would be short

● NG would have knowledge of the contract terms and for NTS connected sites the response available on the day due to real-time telemetry.

● Similar principles apply in electricity with Short Term Operating Reserve (STOR) contracts.

If the shipper / suplier was the contracting party:

● Shipper may be better placed to agree such contracts but this may not be a priority during contract negotiations for bulk supply.

● Shippers may feel more confident in their balancing position if exercising these contracts was via them

● Interaction with commodity sell back that exists in some customer contracts

Contract form

Option and exercise

● OM contracts could be a useful starting point

● Option fees to be paid day in day out, year on year increasing costs to customers

● Who pays option and exercise fees? Links to who the contracting party is

● Does the exercise fee feed into cashout?

Exercise only

● As above but lower routine costs

● Why would customers contract without an option fee – links to whether they receive compensation in the event of firm load shedding

Volume

● What volume should be contracted recognising some demand reduction is likely in response to rising prices in a deteriorating supply / demand position. 20-25 mcm of CCGT demand desponse was reported in the winter of 2005/6 in reponse to high prices.

● Customers may wish to offer tranches of demand to manage impact on electricity market or plant damage.

Interaction with Electricity Market

● If NGG were the contracting party - recognising these are likely to be pre-emergency contracts such that communication between NGG and NGE operations is not allowed - what account should it take of the impact on the electricity market?
●Regulation 994/2010 Article 10 1(e) suggests that Emergency Plans to be drafted by June 2010 should *identify, if appropriate, the measures and actions to be taken to mitigate the potential impact of a gas supply disruption on district heating and the supply of electricity generated from gas;* Given that CCGTs currently constitute > 35% of installed capacity in the UK and a larger fraction of electricity generated it would seem that this should be considered in the UK Emergency Plan.

Triggers for exercise of these contracts

●It may be that these contracts could only be exercised once a GBA has been issued, in this case it may be appropriate to review the GBA processes; when they are called and whether they can be withdrawn within day for example. There may also be benefits to additional types of alert or levels of alert, which could also satisfy the requirement of regulation 994/2010 Article 10 which identifies two levels of pre-emergency warning or alert, whereas in the UK we currently only have one.