

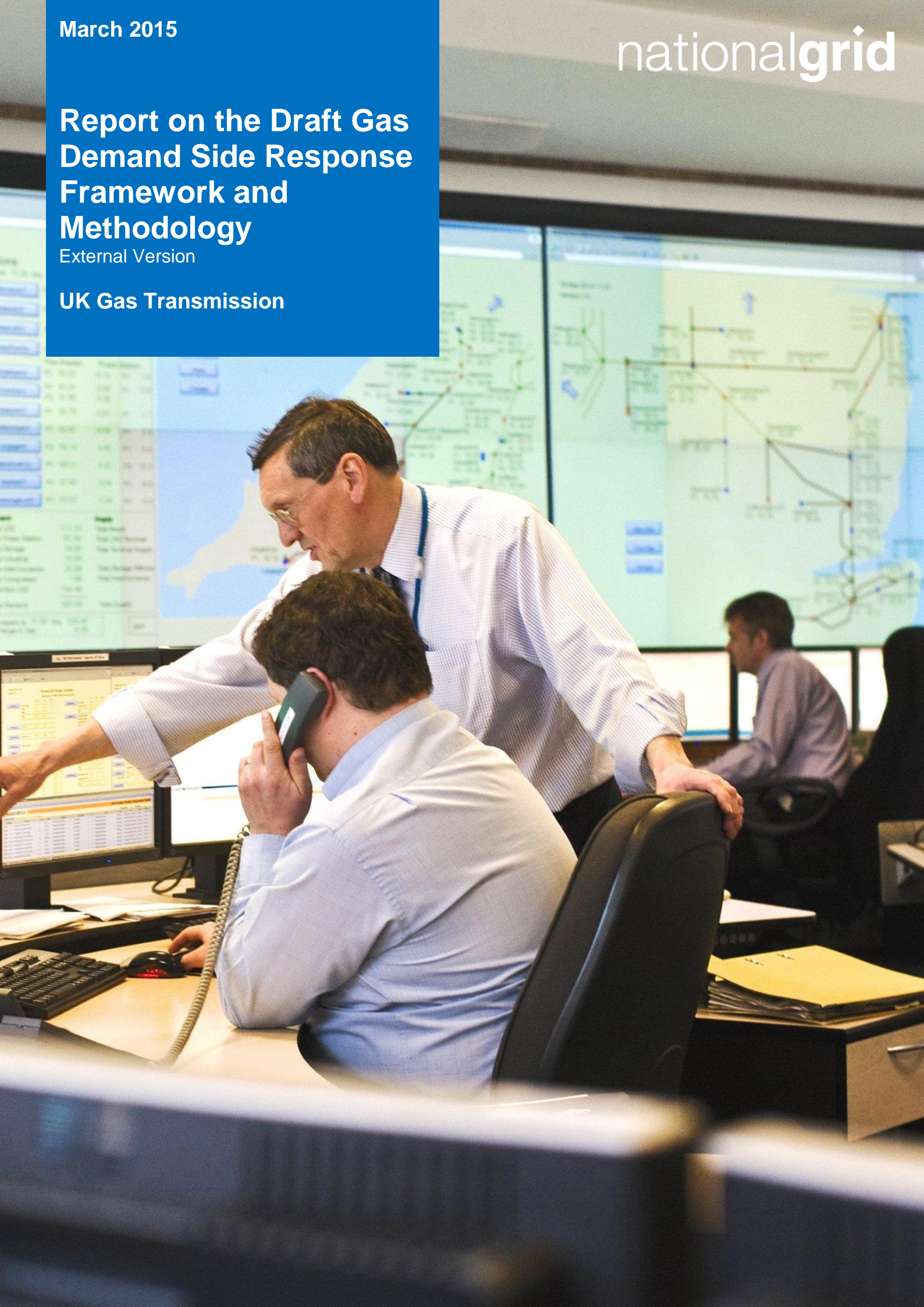
March 2015

nationalgrid

# Report on the Draft Gas Demand Side Response Framework and Methodology

External Version

UK Gas Transmission



# Contents

---

<b>Section 1: Introduction to the Draft Demand Side Response Framework and Methodology report .....</b>	<b>3</b>
<b>Section 2: Consultation on the development of a Gas Demand Side Response Framework and Methodology for use after a Gas Deficit Warning.....</b>	<b>7</b>
<b>Section 3: DSR Framework and Methodology consultation – Summary of Representations .....</b>	<b>76</b>
<b>Section 4: Stakeholder Engagement: Development of a Demand Side Response Framework and Methodology .....</b>	<b>93</b>

# Introduction to the Draft Demand Side Response Framework and Methodology Report

---

## Purpose

The purpose of this report is to set out how National Grid Transmission, in consultation with industry stakeholders, has developed a draft DSR Framework and Methodology which meets the requirements set out in our Gas Transporters (GT) licence obligation Special Condition 8I “Development and implementation of a Demand Side Response Methodology for use after a Gas Deficit Warning”.

In providing this report we seek to demonstrate how we have satisfied the GT Licence Special Condition 8I paragraphs outlined below:

*8I.1 The Licensee must;*

- (a) develop a methodology (the “Demand Side Response Methodology”) for assessing and accepting Demand Side Response Offers;*
- (b) “submit a draft version of the Demand Side Response methodology to the Authority for approval no later than 1<sup>st</sup> March 2015”; and*

*8I.2 “The licensee must develop the Demand Side Response Methodology in consultation with interested parties.” and*

*8I.3 “The Licensee must use reasonable endeavours to ensure that it develops the Demand Side response methodology in accordance with the principles set out in paragraph 8I.4 (the “the demand Side response Principles”).”*

This report includes the following documents (the **blue text** below identifies the title of the associated document included within this report):

1. [Consultation on the Development of a Gas Demand Side Response Framework and Methodology for use after a Gas Deficit Warning](#) document, which provides details of how we developed the DSR Framework and Methodology in consultation with our stakeholders.
2. [Summary of Industry Representations to the DSR Framework and Methodology Consultation](#)
3. [Stakeholder Engagement: Development of a Demand Side Response Framework and Methodology](#) document, which seeks to provide details of the steps we took to ensure the comprehensive engagement of relevant industry parties.

## How we consider that we have satisfied the SC8I Licence Conditions

Within this document we seek to document how we have sought to address each of the relevant Licence Conditions within SC8I as follows:

**SC8I.1 (a) develop a methodology (the “Demand Side Response Methodology”) for assessing and accepting Demand Side Response Offers**

The “[Consultation on the Development of a Gas Demand Side Response Framework and methodology for use after a gas Deficit Warning](#)” sets out how we have developed the DSR Framework and Methodology in consultation with our stakeholders.

**SC8I.1 (b) submit a draft version of the Demand Side Response methodology to the Authority for approval no later than 1<sup>st</sup> March 2015.**

The draft version of the DSR Framework and Methodology document has been submitted as part of the - “[Consultation on the Development of a Gas Demand Side Response Framework and Methodology for use after a Gas Deficit Warning](#)” Document and “[Appendix 3 – The DSR Framework and Methodology Document](#)”.

**SC8I.2 The licensee must develop the Demand Side Response Methodology in consultation with interested parties.**

The “[Stakeholder Engagement: Development of a Demand Side Response Framework and Methodology](#)” sets out our stakeholder engagement strategy for the development of the DSR Framework and Methodology. The document seeks to provide evidence of our engagement with Uniform Network Code parties as well as extending engagement out to a wider spectrum of the industry representatives.

As part of our Stakeholder Engagement we completed a consultation on the DSR Framework and Methodology, the responses to the consultation have been summarised in the “[DSR Consultation Summary of Responses](#)” document. Additionally, as part of the DSR Methodology development process we ran a DSR Stakeholder Survey which sought to gauge the appetite for a DSR Product within the End Consumer sector of the industry. The results of this survey have been documented in the “[Consultation on the Development of a Gas Demand Side Response Framework and methodology for use after a Gas Deficit Warning](#)” Document and “[Appendix 4 –Volumetrics and DSR Survey analysis results](#)”.

We consider that these three documents provide the evidence which demonstrates that we have fully consulted with interested parties and considered/taken on board their views throughout the development of the DSR Framework and Methodology.

**SC8I.3 The Licensee must use reasonable endeavours to ensure that it develops the Demand Side response methodology in accordance with the principles set out in paragraph 8I.4 (the “the demand Side response Principles”).**

The “Consultation on the Development of a Gas Demand Side Response Framework and Methodology for use after a Gas Deficit Warning Document” Document and “Section 4: Assessment of the DSR Service against the requirements set out in National Grid’s Licence”, set out how we believe we have developed a draft DSR Framework and Methodology that satisfies the requirements prescribed in Licence Condition SC8I.3.

### **Ongoing Areas to be addressed**

The DSR workgroup generally accepted that at this stage of the DSR development schedule, as set out in SC8I, our requirement was to develop and submit a draft version of the DSR Framework and Methodology to Ofgem, by the 1<sup>st</sup> March 2015. We believe that this report provides Ofgem with such draft documents and the necessary information to make an informed decision on whether, or not, the DSR Framework and Methodology should be taken forward to a trial.

During the final stages of agreeing the draft DSR Framework and Methodology the DSR workgroup noted that there were some outstanding issues that would need to be considered if the decision was made to implement the Methodology and supporting mechanism. The workgroup considered that these issues did not form part of the scope of DSR Framework and Methodology covered by SC8. Workgroup members therefore agreed that these outstanding issues should be resolved through ongoing developments following the Ofgem decision on the draft Framework and Methodology. Responses to the DSR consultation responses reflected the observations raised by the workgroup. The following issues were identified as requiring further attention:

- **The Shipper/Supplier and End Consumer service agreement**

The most common concern for many industry parties was the uncertainties associated with the content of the Shipper/supplier and End Consumer service agreement. At the forefront of these concerns was the nature and treatment of liabilities associated with;

- the failure to respond to a request to reduce the offtake of gas, and the effect this may have on a Shipper’s imbalance position; and
- the reliability and timeliness of Shippers/Suppliers updating/removing DSR Offers.

During the DSR workgroup discussions the general view of the attendees was that the Licence Conditions specifically set out the requirement to deliver a DSR Framework and Methodology that would facilitate the emergence of additional voluntary DSR. The workgroup debated whether, or not, it was appropriate for a detailed service agreement to form part of the DSR Methodology. There was a strong consensus across all workgroup members and within the consultation responses that such contractual arrangements sat outside the scope of the Methodology. As a result the Methodology should include only a high-level reference to the requirement for a service agreement between the

Shipper/Supplier and the End Consumer, whilst also providing clear defined terms that could be referred to within any such service agreement. The workgroup recognised that the success of the DSR arrangements was likely to be highly reliant upon having greater clarity of the Shipper/Supplier and End Consumer service agreement. The workgroup concluded that as National Grid did not have the necessary skill set or vires to develop such a service agreement, further work on these arrangements should be undertaken through relevant tri-party discussions.

- **Impact of the disaggregation of supply-point meters**

At the final DSR Workgroup session attention was drawn to Modification Proposal 0428 – ‘Single Meter Supply Point’<sup>1</sup>, which, following implementation of Project Nexus in October 2015, will mandate the removal of aggregated meter points at any one supply point and implement one meter point to one supply point. The consequences of this Modification on the DSR Methodology and Licence provision SC81.4 (b)<sup>2</sup> will be the impact the revision has on the DSR eligibility rules for meeting the 2 million therms per annum minimum consumption, and achieving the minimum bid size, in respect of sites that currently have aggregated meters. The draft DSR Methodology currently meets the criteria set out in the licence, however, ongoing development is required to understand the impact that Modification 0428 will have on participation in the DSR Framework and Methodology and consider what, if any, aggregation arrangements the industry may wish to put in place for DSR Offers.

- **Distribution Network Operator information provisions**

Through several meetings with National Grid, and in response to the DSR consultation, the Distribution Network Operators (DNOs) have expressed concern that the relevant Distribution Network would have little visibility of an accepted Demand Side Response Offer. Some DNOs suggested that it would be beneficial to the relevant Distribution Control Centre to understand what Offers have been accepted so that they may profile their planned gas scheduling for the day in a more accurate manner. We can appreciate the concerns raised by the DNOs and have advised that it would be helpful to discuss this issue further to understand what DSR information provisions are required for both parties. However, the issue of gas market trading having an impact on DNO network flows, and the visibility of this activity to the relevant network owners, is not one generated by the development of a DSR Framework or Methodology. OCM Market Title, Physical and Locational activity can all result in changes to deliveries to, or offtake from, customers connected to the DNO’s networks and this has been the case since the establishment of the competitive market. As such these concerns are more related to the general practice and DNOs visibility of within day trading of gas rather than the proposed provision of an additional DSR Product.

- **The DSR Methodology Statement potential Licence revision to SC81**

Licence provision SC81 currently requires National Grid to develop the DSR Methodology. If the Authority directs the DSR Framework and Methodology to be implemented the Authority will also be

---

<sup>1</sup> Modification Proposal 0428 – ‘Single meter Supply Point’ seeks to prohibit the practice of aggregating meter points into mmSPs, establishing a rule that would permit only one meter point per Supply Point.

<sup>2</sup> SC81.4 (b) set out the criteria for determining that particular ‘DMC’ Supply point Components are ‘DMC’ Supply Point Components in respect of which a party may not make Demand Side Response Offers.

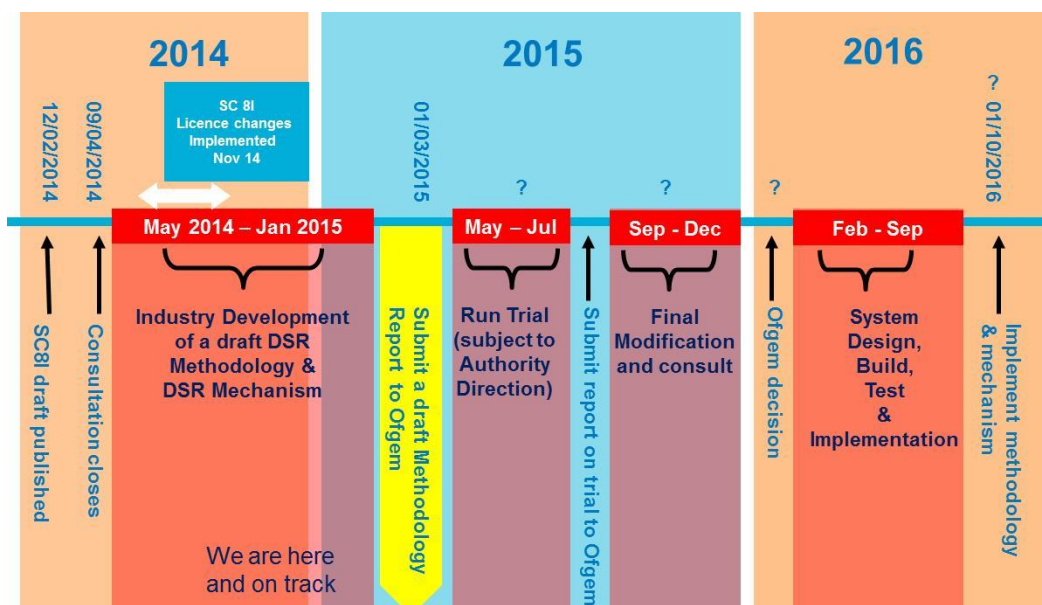
required to determine the governance arrangements for the DSR Framework and Methodology. We note that further licence revisions may be required to facilitate the introduction and operation of the DSR Methodology. One approach may be to incorporate the requirement to provide and manage the agreed Methodology through Special Condition 8A, which sets out the System Management Principles, with the DSR Framework and Methodology Document, residing outside of the licence. This would enable the Methodology to be modified through industry consultation without the requirement for a further licence amendment.

## Next Steps

Following the submission of this report to the Authority for approval, and pending the Authority's decision on whether, or not, to direct National Grid to run a trial of the approved DSR Framework and Methodology, National Grid will continue to develop, in consultation with the industry, a paper based trial and seek to comply with the outstanding obligations set out in SC8I:

- (a) where Directed by the Authority to do so, run a trial of the approved draft Demand Side Response Methodology;
- (b) following such a trial, submit to the Authority a report on the outcome of the trial and a final version of the Demand Side Response Methodology amended to address issues identified by the Licensee during the trial; and
- (c) where Directed by the Authority to do so, implement the Demand Side Response Methodology.

The diagram below sets out the proposed timescales for delivering the SC8I licences provisions:



December 2014

# Consultation on the Development of a Gas Demand Side Response Framework and Methodology for use after a Gas Deficit Warning

UK Gas Transmission

nationalgrid





# Executive Summary

---

This industry consultation seeks your views on the draft Demand Side Response (DSR) Framework and Methodology. The draft Demand Side Response Framework and Methodology sets out the details of a potential new gas market DSR product. This new DSR product would, if implemented, provide an additional 'route to market' through which Gas Consumers could offer to turn down their consumption of gas at times of gas system stress in return for a payment. The aim is that by providing DSR prior to entering a *Gas Deficit Emergency (GDE)*<sup>3</sup> Gas Consumers have the potential to protect their critical loads by turning down other, less critical loads. Any DSR procured through this mechanism would only be used to try and avert a GDE.

As a result of a series of working group meetings with representatives of the gas industry and other interested parties, the DSR Framework and Methodology outlines that:

- DSR Offers may only be accepted by National Grid in its *Residual Balancing* role, once a *Gas Deficit Warning (GDW)* has been declared.
- The DSR Product will utilise the existing gas industry 'On the day Commodity Market' (OCM) Locational Market.
- The DSR Product must be associated with a specific *Daily Metered (DM) Supply Point* that has a registered gas consumption *Annual Quantity (AQ)* greater than 2 million therms.
- The DSR Product will be offered to National Grid as a single *Daily* or grouped *Multi-day* product, which in turn may be offered in the form of;
  - a "7-day profiled" offer (enabling the ability to submit differing values (volume and price) for each day of the week or the same value for each day if required) within which the offer values may continuously roll over once the initial 7-day profiled offer (strip duration) has completed, which may be accepted for each individual day; or
  - A fixed offer in terms of price, volume and time period that is input for, and must be taken on, a *Multi-Day* basis.
- Where a DSR Offer is submitted and then accepted by National Grid on a *Day* where National Grid subsequently declares that the gas network has entered a *Gas Deficit Emergency Stage 2 (See appendix 5 for further information on the current network gas supply emergency stages)*, the *Supply Point* at which the DSR offer has been accepted will be required to maintain its reduction in offtake quantity until instructed by the *National Emergency Co-ordinator (NEC)* that its offtake restriction has been removed.







Further details of the DSR service are described in section two.

---

<sup>3</sup> Throughout this document (not including the appendices) there are references to particular sections of the Uniform Network Code (UNC) document; these are highlighted using the UNC reference code and / or italics.

This industry consultation has been raised following the publication of Ofgem's revision to National Grid's Gas Transporters Licence, which introduced a new Special Condition; Special Condition 8I – 'Development and Implementation of a Demand Side Response Methodology for use after a Gas Deficit Warning'

This consultation includes a number of questions. Each question includes a colour key which aims to provide guidance on who we believe are impacted by the subject matter of the question. The colour key is outlined below, it should be noted this is only a guide and we would welcome responses to all questions from all parties.

-  Eligible Gas Consumer (Annual Quantity (AQ) greater than 2 Million Therms)
-  Shipper
-  Supplier
-  User Group Representative
-  Transporter
-  Other

We would value your responses by 23<sup>rd</sup> January 2015 to the following email:  
[enquires@gasgovernance.co.uk](mailto:enquires@gasgovernance.co.uk)

Or alternatively by post to:

**Claire Thorneywork**  
**National Grid House,**  
**Warwick Technology Park,**  
**Gallows Hill,**  
**Warwick,**  
**CV34 6DA**

# Contents

---

<b>Executive Summary</b> .....	<b>2</b>
<b>Contents</b> .....	<b>4</b>
<b>Section 1: Background to the development of the DSR Framework and Methodology and the proposed new DSR Product</b> .....	<b>6</b>
<b>Section 2: The DSR Framework and Methodology Document</b> .....	<b>8</b>
DSR Overview diagram .....	8
The DSR Service .....	8
The OCM Locational Market .....	9
The DSR Product.....	9
The DSR Offer .....	11
DSR End to End Flow diagram .....	12
<b>Section 3: Wider Market Considerations</b> .....	<b>13</b>
Interactions with European Network Codes .....	13
Background to the use of the OCM Locational Market.....	13
<b>Section 4: Assessment of the DSR Service against the requirements set out in National Grid’s Licence</b> .....	<b>15</b>
<b>Section 5: When might these changes come into effect?</b> .....	<b>24</b>
<b>Section 6: What will this cost?</b> .....	<b>25</b>
<b>Section 7: Frequently asked questions</b> .....	<b>26</b>
<b>Section 8: Consolidated Consultation Questions</b> .....	<b>29</b>
<b>Responses</b> .....	<b>31</b>
<b>Appendix 1: Glossary</b> .....	<b>32</b>
<b>Appendix 2: GT Licence Special Condition 8I</b> .....	<b>33</b>
<b>Appendix 3: The DSR Framework and Methodology Document</b> .....	<b>36</b>
<b>Appendix 4: Volumetrics and DSR Survey Analysis results</b> .....	<b>50</b>

<b>Appendix 5: Network Gas Supply Emergency Classification .....</b>	<b>57</b>
<b>Appendix 6: Shipper / Supplier and Gas Consumer DSR service agreement – Items for Consideration.....</b>	<b>58</b>
<b>Appendix 7: DSR End to End Process .....</b>	<b>61</b>
<b>Appendix 8: DSR Product Options for available DSR energy quantities at an Eligible site.....</b>	<b>64</b>
<b>Appendix 9: DSR Mechanism Process Flow .....</b>	<b>66</b>
<b>Appendix 10: Timescales for the development of the DSR Framework and Methodology .....</b>	<b>67</b>

## Section 1

# Background to the development of the DSR Framework and Methodology and the proposed new DSR Product

---

Ofgem's Security of Supply (SoS) Significant Code Review (SCR) identified that, in the build up to a *Gas Deficit Emergency (GDE)*, there may be merit in developing a mechanism to further encourage Gas Consumers, to signal their willingness to reduce their gas consumption, at times of system stress in return for a payment.

It was noted during the above review that Demand Side Response (DSR) from Gas Consumers may in some circumstances provide sufficient additional system balancing volumes to avoid entering into a *GDE*. This may therefore prevent Gas Consumers with more critical loads being unilaterally interrupted by National Grid during a *GDE Stage 2 – Firm Load Shedding*, whilst simultaneously mitigating the high costs and risks on the industry, associated with an escalation into a *Gas Deficit Emergency*.

The outcome of Ofgem's SoS SCR concluded that there would be merit in further development of a DSR mechanism. Ofgem considered that further development could be achieved outside of the SoS SCR process. Therefore is enabled the SCR cash-out reforms to be implemented as soon as possible, whilst allowing sufficient time for the DSR mechanism to be designed separately and in conjunction with industry parties and thus limit the probability of causing any distortions to the rest of the market.

As part of the SoS SCR Final Policy Decision Document (12 February 2014), Ofgem included a consultation on the Draft Gas Transporter Licence Obligation 'Special Condition 8I – Development and Implementation of a Demand Side Response Methodology for use after a Gas Deficit Warning'.

Following a consultation on the draft licence obligation, Ofgem published their Gas SoS SCR Conclusions in September 2014. This confirmed their decision to proceed with the development of a centralised DSR mechanism and to place the licence obligation on National Grid to develop the Methodology. The decision to modify the Gas Transporter licence to include Special Condition 8I took effect on 19<sup>th</sup> November 2014.

This consultation explains the outcome of subsequent industry developments for new arrangements relating to a DSR mechanism.

In June 2014, National Grid submitted an industry Uniform Network Code (UNC) contract change proposal, which highlighted how the DSR Framework and Methodology and supporting mechanism could be developed. This proposal was accepted by industry representatives as a suitable route to develop the arrangements. Subsequently National Grid has been working, with the help of a wide variety of industry representatives and the Joint Office of Gas Transporters, to carry out a series of workgroups outlining, and developing, the options in order to produce recommendations for a potential DSR Product, DSR Framework and Methodology and supporting mechanism. This document describes the results of this development process.

Further information of the discussions within the workgroup meetings can be found on the Joint Office of Gas Transporters website at: <http://www.gasgovernance.co.uk/dsr>.

Following this consultation National Grid will:

2. submit a draft DSR Framework and Methodology to Ofgem (the Authority) no later than 1<sup>st</sup> March 2015;
3. where subsequently directed by the Authority to do so, run a trial of the approved draft DSR Framework and Methodology;
4. following such a trial, submit to the Authority a report on the outcome and a final version of the DSR Framework and Methodology amended if necessary to address issues identified during the trial; and
5. where directed by the Authority to do so, implement the DSR Framework and Methodology.

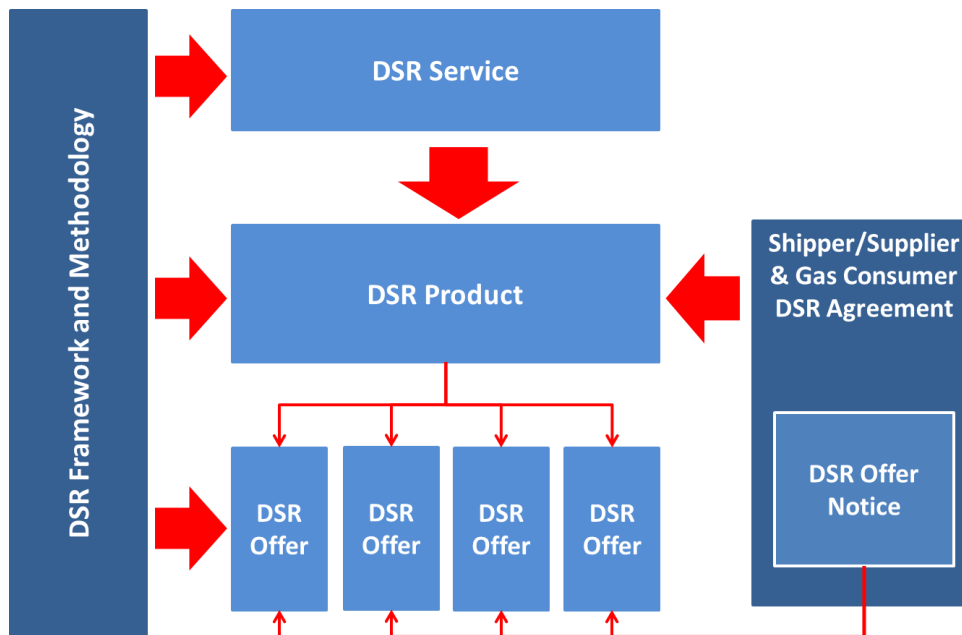
This document sets out a potential future change to the commercial framework between National Grid, Shippers, Suppliers and Gas Consumers.

For further clarification on the terminology used within this document a glossary of terms is provided in Appendix one. Throughout this document (not including the appendices) there are references to particular sections of the Uniform Network Code (UNC) document (these are highlighted using the UNC reference code and / or italics). We have done this to ensure that this document remains aligned to the UNC should such areas of the main UNC document change in future and also to avoid replicating the existing UNC commercial regime methodologies within this document. The UNC document can be found on the Joint Office website at: <http://www.gasgovernance.co.uk>

## Section 2

### The DSR Framework and Methodology

#### 2.1 DSR Overview diagram



#### 2.2 The DSR Service

The DSR Service predominantly involves a three way party interaction between Gas Consumers, gas Shippers and National Grid (as shown in the diagram on page 9 below). This becomes a four way interaction when a gas Supplier is involved in between the Gas Consumer and the Shipper.

The DSR mechanism features two principles contractual arrangements:

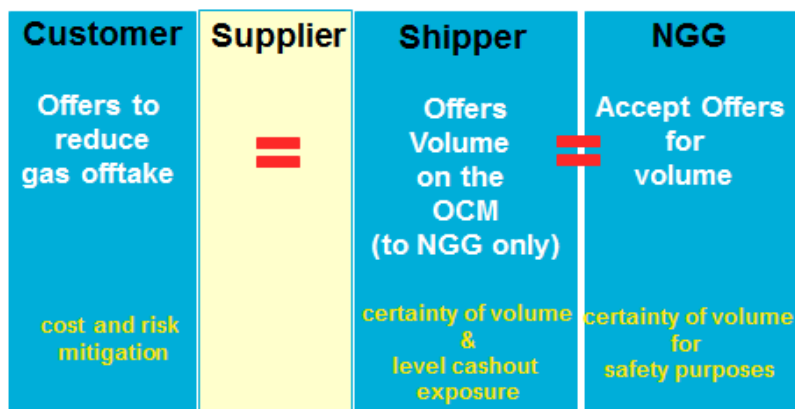
- **Part One – For delivery of the physical action by the Gas Consumer to reduce the gas quantity offtaken, at a relevant Site, associated to the DSR Offer** – this is the Shipper/Supplier to Gas Consumer contractual arrangement. On behalf of the Gas Consumer (in some cases through instruction by the Supplier) the Shipper will agree to place an offer onto the DSR mechanism, which reflects the agreed DSR energy quantity and unit price for the Gas Consumer's reduction in offtake of gas from the gas network. In return the Gas Consumer commits to honouring and delivering on the agreed offtake reduction if called on to do so by the relevant Shipper following acceptance of the offer by National Grid. (Note: Requirements for this aspect of the DSR mechanism shall be defined by the Shipper, Supplier or Gas Consumer through their Contractual (gas supply contract) arrangements).
- **Part Two - For the procurement of the gas which would otherwise have been offtaken by the Gas Consumer which is now associated with the DSR Offer** – this is the Shipper to National Grid contractual arrangement. Under prescribed

parameters and criteria, the Shipper will offer to sell “title” to gas (associated to the DSR Offer) to National Grid in its role as the Residual Balancer. (Note: The requirements and provisions for this aspect of the DSR mechanism will be set out within the DSR Framework and Methodology and the Uniform Network Code (UNC)).

**Q1: Do you consider that the DSR Framework and Methodology should set out provisions for the gas procurement arrangements between National Grid and Shippers, with only high level references to the Demand Side Response contractual arrangements between Shippers/Suppliers and Gas Consumers?**

● ● ● ●

**DSR mechanism three way party interaction**



**2.3 The OCM Locational Market**

The DSR Service will utilise the existing OCM Locational Market. This will be revised from one in which all Shipper OCM market participants may both post and accept locational trades to a market where Shippers may only post trades and only National Grid is able to accept trades. Further information on the OCM Locational Market can be found in section 3.2 ‘Background to the use of the OCM Locational Market’.

**Q2: Do you consider that the current On the Day Commodity Market (OCM) provides an appropriate platform to facilitate the provision of a DSR Product?**

● ● ● ●

**2.4 The DSR Product**

- The DSR Product must be associated with a specific *Daily Metered Supply Point (DMC)* that has a registered gas consumption *Annual Quantity (AQ)* greater than 2 million therms.
- The product will be offered to National Grid as: a *Daily* product and, where appropriate, it will be accepted for each gas *Day* exclusively in accordance with *UNC*



Section D2.2.1 (d) or as a *Multi-day* product undertaken in accordance with *UNC Section D4- Multi-Day Balancing Actions*;

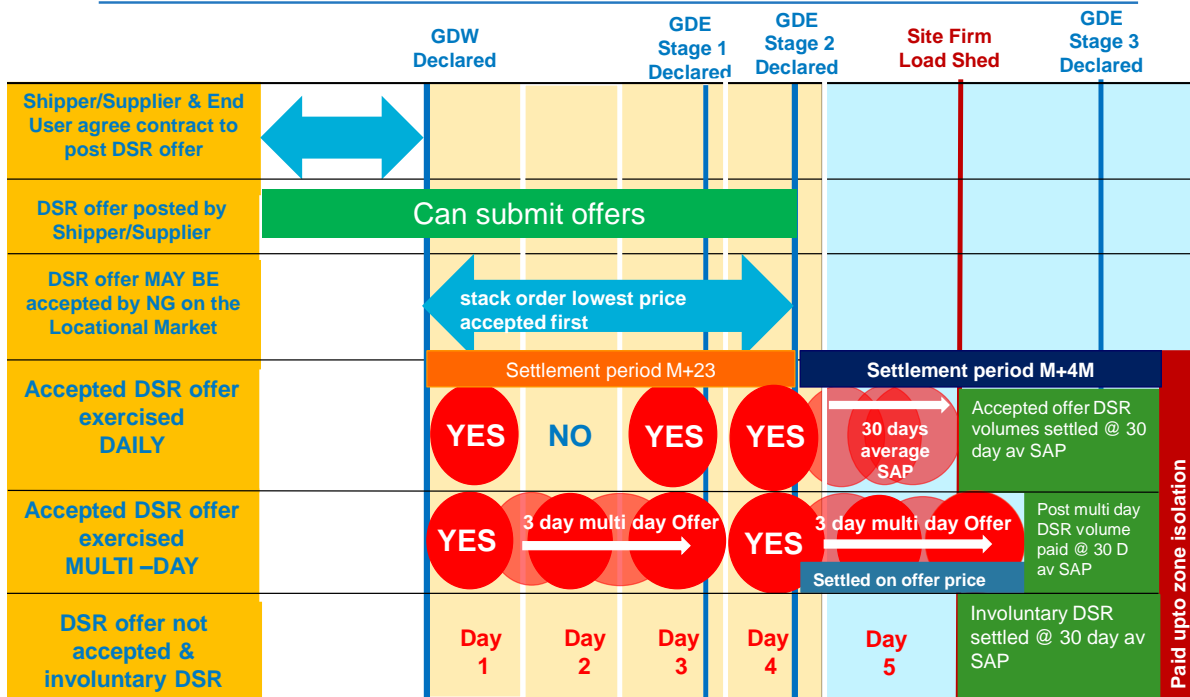
- Features of the *Daily* DSR Offer product.
  - The *Daily* product may be offered in the form of:
    - a “7-day profiled” offer (enabling the ability to submit differing values (volume and price) for each day of the week or the same value for each day if required) within which the offer values may continuously roll over once the initial 7-day profiled offer (strip duration) has completed; or
    - A fixed offer in terms of price, volume and time period that is input for, and must be taken on, a *Multi-Day* basis.
- The Product may only be “offered” on the OCM Locational Market by a *Registered User* (Shipper) at the relevant *DMC*;
- Each DSR Offer must be greater than 100,000 kWhs/day in accordance with *UNC Section D4.3*.
- The DSR Product may be offered in multiple, and separate, tranches, which may be priced individually, according to the *Value of Lost Load (VoLL)* associated to each separate tranche;
- Each tranche will be submitted as a single DSR Offer and so must meet all of the eligibility criteria for a DSR Offer (e.g. minimum size of 100,000 kWhs/day);
- There may be more than one DSR Offer at a specific *DMC*;
- DSR Offers will be accepted by National Grid in its role as Residual Balancer on a daily basis, for the period between the *GDW* being declared and the former of the *GDW* being revoked or the end of the *Gas Deficit Emergency (GDE) Stage1*. This time period is the DSR Period.
- *Multi-day Offers*, if accepted, will be for the duration of the offer.
- Where a DSR Offer is submitted, and is subsequently accepted by National Grid, on the *Day* that the gas system enters into a *Gas Deficit Emergency Stage 2*, the *Supply Point* at which the DSR Offer has been accepted will be required to maintain the associated reduction in its offtake quantity until instructed by the *National Emergency Co-ordinator (NEC)* that its offtake reduction is no longer necessary.

**Q3: Does the proposed DSR Product meet your expectations in respect of providing sufficient market offer flexibility to match your operational requirements when determining and offering DSR? If not, which aspect(s) would you change, add or remove?**



The diagram below shows the proposed design of the DSR mechanism to provide further clarification (please note that a larger version of the diagram can be viewed in Appendix 9).

## DSR Mechanism Process Flow: Daily or Multi-day Offers



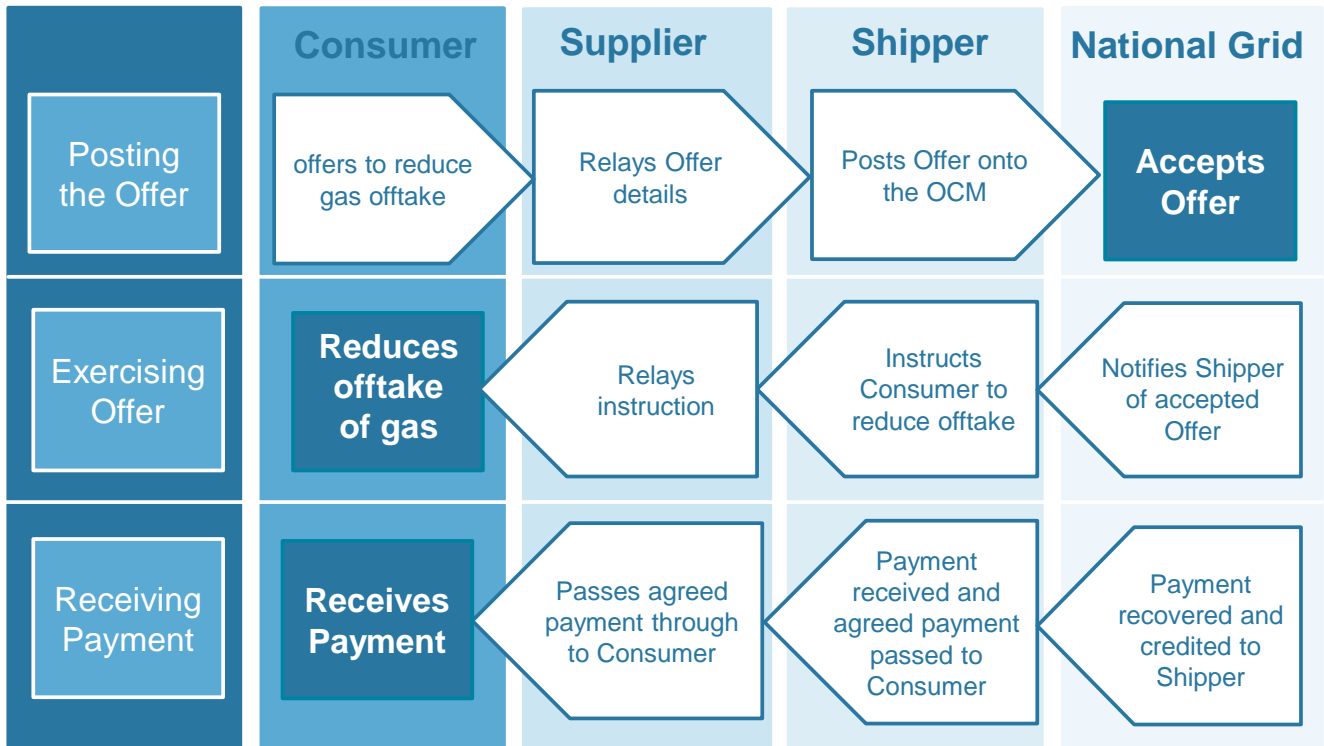
### 2.5 The DSR Offer

- All DSR Offers will be posted on the OCM platform but these offers will not become visible on the platform until a *GDW* has been declared.
- DSR Offers may be placed on, updated or withdrawn from, the OCM platform at any time up to the declaration of a *GDE Stage 2* for the relevant gas *Day*.
- DSR Offers may only be accepted by National Grid once a *Gas Deficit Warning (GDW)* has been declared for the relevant gas *Day*.
- DSR Offers may only be accepted by National Grid in its role as *Residual Balancer*.
- Each DSR Offer must be greater than 100,000 kWhs/day in accordance with *UNC Section D4.3*.
- Where a DSR Offer is accepted it will be regarded as a *Locational Market Balancing Action* that will be undertaken in accordance with *UNC Section D2.2.1 (d)*.
- All accepted DSR Offers will be included in the calculation of *System Clearing prices* for the relevant gas *Day*.

**Q4: Do the criteria and arrangements set out within the Framework and Methodology for the posting and processing of DSR Offers meet your requirements? If not, could you describe the new issues you would like to be considered?**



## 2.6 DSR End to End Flow Diagram



Q5: In respect of the development of the DSR Framework and Methodology, do you consider that you have been given sufficient opportunity to provide your input into the development of the DSR Framework and Methodology? Have we listened and taken account of your views?



## Section 3

# Wider Market Considerations

---

### 3.1 Interactions with European Network Codes

During the development of the new DSR mechanism and framework National Grid has been mindful of the Gas Balancing of Transmission Networks Code 312/2014. We note that article 2.4 of the Balancing Code allows specific measures to be utilised by the Transmission System Operator in emergency situations and states that “This Regulation shall not apply in emergency situations where the Transmission System Operator shall implement specific measures defined under the applicable national rules and on the basis of Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply, as appropriate” .

Regulation 994/2010 states:

- “Measures necessary to ensure the fulfilment of the supply standard may include additional storage capacities and volumes, linepack, supply contracts, interruptible contracts or any other measures that have a similar effect, as well as the necessary technical measures to ensure the safety of gas supply”.
- “Article 3 - The measures to ensure the security of supply contained in the Preventive Action Plans and in the Emergency Plans shall be clearly defined, transparent, proportionate, non-discriminatory and verifiable, shall not unduly distort competition and the effective functioning of the internal market in gas and shall not endanger the security of gas supply of other Member States or of the Union as a whole.” As outlined in Section 5, which details the DSR service against the requirements set out within National Grid’s Licence Condition, we believe DSR does not distort competition as it provides no additional functionality than that which is already offered to Shippers and consumers on the OCM Title Market.
- Within this Regulation, Annex II there is also a “list of market-based security of gas supply measures” which includes an equivalent to DSR “Demand Side Measure - voluntary *Firm Load Shedding*”.

In addition we believe that the proposed DSR Product is a preventative market measure which aims to safeguard against a severe gas security of supply issue or an emergency. Therefore, we believe that the DSR Product described within this consultation would be exempt in accordance with article 2.4 of the EU Balancing code.

### 3.2 Background to the use of the OCM Locational Market

The OCM Market refers to the ‘On the day Commodity Market’ operated by ICE Endex for trading natural gas in Great Britain. The OCM consists of three Markets;

- Title,

- Physical, and
- Locational

The OCM is central to the operation of the commercial regime within the GB gas market. The Title Market is the most frequently used and “liquid” market and is where the vast majority of OCM trading takes place. In contrast the Locational Market is used very infrequently. Historically, evidence shows that National Grid has been the only party to take a bid or offer in this market. National Grid uses the Locational Market for constraint management purposes as well as National requirements; however this market hasn’t been used for national gas balancing purposes since 2006.

As a result of the current functionality available on the OCM Locational Market and the historic underutilisation of this market, discussions at the DSR workgroups have indicated that the Locational Market would be suitable to facilitate the DSR mechanism. Discussions with ICE Endex, the OCM Operator, have also indicated that extending the scope of the existing Locational Market to include the new DSR Product would be more efficient and economic than building a new separate DSR platform, particularly when considering the low probability of a *GDE* occurring.

## Section 4

# Assessment of the DSR Service against the requirements set out in National Grid's Licence

---

This document has been developed as a result of Ofgem's revision to National Grid Transmission's Gas Transporter Licence. The potential changes to the UNC outlined in this document have been gauged against the "relevant objectives" set out in the licence and also the new DSR Licence Condition principles, further details on how, in National Grid's opinion, these changes further facilitate these areas are outlined below:

### **Relevant Objective a) Efficient and economic operation of the pipe-line system and b) Coordinated, efficient and economic operation of the combined pipe-line system**

We consider that this draft DSR Framework and Methodology, if implemented, would facilitate further Demand Side Response from Gas Consumers who have indicated that they may not otherwise respond to a *GDW*, where the system is in a significant Supply / Demand deficit. Provision by Gas Consumers of this type of DSR may provide additional volumes that in some instances would be sufficient to prevent escalation of a severe national gas supply / demand imbalance into a full Gas Deficit Emergency. We believe that such additional response may therefore demonstrate an improvement to the efficient and economic operation of the pipe-line system during specified times where the system balance position is stressed. Also encouraging additional voluntary DSR facilitates economic disconnection based on individual Gas Consumer willingness and cost of their reduction rather than under current arrangements, where disconnection is left until post Stage 2 and is based on the Gas Consumer's size of load rather than the value of supply to the Gas Consumer. Additionally, we believe that these proposed changes may provide an improvement in the coordinated efficient and economic operation of the combined pipe-line system as they seek to enable DSR from the entire on-shore gas network, rather than just those directly connected to the National Transmission System.

**Q6: Do you consider that the Draft DSR Framework and Methodology, the proposed DSR Mechanism and the suggested Shipper/Supplier to Gas Consumer service agreement structure delivers an efficient and economic approach, through which Gas Consumers may provide DSR, that may otherwise not be available during periods of acute gas market stress?**



### **Relevant Objective c) Efficient discharge of the licensee's obligations**

This draft DSR Framework and Methodology consultation has been raised as a result of Ofgem's revision to National Grid Transmission's Gas Transporters Licence which introduces a new Special Condition; Special Condition 8I. The Licence Condition details a number of

criteria which National Grid must consider when developing the DSR Framework and Methodology, including; developing the DSR Framework and Methodology in consultation with interested parties and also using reasonable endeavours to ensure that the DSR Framework and Methodology is developed in accordance with the 'Demand Side Response Methodology Principles', as outlined below;

***GT Licence Condition 8I.2 The Licensee must develop the Demand Side Response Methodology in consultation with interested parties.***

To achieve the successful development of the DSR Framework and Methodology it is essential that National Grid understand the needs and requirements of all stakeholders that may have an interest participating in, or are potentially affected by, the DSR mechanism. This covers the range of interested parties already mentioned: Gas Consumers, Shippers, Suppliers and National Grid.

Given the importance of stakeholder input in developing the DSR Framework and Methodology we have strived to ensure we communicate with, listen to and involve as many stakeholders as possible. In order to do this we have held a number of;

- bi-lateral meetings,
- industry associations workshops,
- utilised the Joint Office workgroup structure to facilitate development discussions,
- surveyed stakeholders on the proposed product design ,and
- published summaries of meeting outcomes to stakeholders who were unable attend any of the above.

Overall we have held in excess of 25 meetings with interested parties, which has enabled us to engage directly with approximately 60 individual Gas Consumers and also a number of industry associations, who together represent what we believe to be the majority of the larger Gas Consumers and therefore those likely to be affected by DSR.

In June, following some initial engagement with stakeholders we raised a UNC Modification Proposal (0504) to provide the platform for a series of Joint Office administered industry workgroups to be held. To date we have held six of the scheduled seven workgroups and it has been within this forum where we have worked with the help of industry representatives to develop and agree the structure of the product and processes outlined in this consultation. During these workgroups we have considered stakeholder views gathered during earlier bi-lateral meetings, alongside views expressed within the workgroup in order to develop the DSR Framework and Methodology. The development workgroups have had representation

from Shippers, Transporters, industry associations, Gas Consumer groups, Ofgem and individual Gas Consumers.

As a result of the stakeholder engagement which we have undertaken to date, we believe that the DSR Framework and Methodology now represents a balanced consensus of stakeholder's views and opinions.

**8I.3 The Licensee must use reasonable endeavours to ensure that it develops the Demand Side Response Methodology in accordance with the principles set out in paragraph 8I.4 (the "Demand Side Response Methodology Principles").**

**8I.4 The Demand Side Response Methodology Principles are that the Demand Side Methodology must;**

(a) Ensure that any party making a Demand Side Response Offer is a party to the Uniform Network Code;

We believe that the DSR Framework and Methodology meets this licence principle because all DSR Offers will be posted on to the OCM platform. Only Gas Act licenced gas Shippers have the ability to post Locational Market offers on the OCM, and all licensed Shippers must accede to the UNC prior to arranging to ship gas through the GB gas network. Therefore, any party submitting a DSR Offer has to be a signatory to the Uniform Network Code (UNC).

**Q7: Do you consider that the proposed DSR Framework and Methodology appropriately meets the requirements set out in the gas Transporters Licence principles, i.e. that only signatories to the Uniform Network Code may post a DSR Offer? If not, please detail how you feel this SC8I.4 (a) licence obligation may be better achieved?**

(b) Set out the criteria for determining that particular "DMC" Supply Point Components are "DMC" Supply Point Components in respect of which a party may not make Demand Side Response Offers;

An eligible *Supply Point* is a '*DMC Supply Point*' as defined in *Section A4.5* of the Uniform Network Code. That is a *Supply Point* whose *Annual Quantity* is greater than 2 million therms. An eligible site must be able to offer a minimum DSR Offer energy quantity of not less than 100,000 kWhs/day in any one DSR Offer. The workgroup agreed that the OCM was the most appropriate platform for the DSR mechanism and therefore that the 100,000 kWh/day minimum DSR Offer notice was also appropriate given that this is the minimum trade size allowable on this platform. This also aligns with National Grid's System Management Principles Statement which states that 'the smallest bid / offer volume of gas capable of being posted by market participants is 100,000 kWhs/day'.



**Q8: Do you consider that the proposed DSR Framework and Methodology satisfies the eligibility criteria set out in the Licence condition SC8I.4 (b)? If not, do you have any views on how to better satisfy this principle?**



(c) Allow the Licensee to accept Demand Side Response Offers only where a Gas Deficit Warning is in place or within Stage 1 of a Gas Deficit Emergency;

National Grid will be the sole party able to accept DSR Offers within the DSR mechanism. DSR Offers may be accepted by National Grid in its role as *Residual Balancer* at any time following the declaration of a *GDW* for the relevant gas *Day* and before the revocation of the *GDW* or the end of *GDE Stage 1* (the DSR Period).

**Q9: Are you satisfied that the introduction of the DSR Framework and Methodology through the proposed revisions to the Locational Market of the OCM Platform is the most appropriate approach to meet the principles set out in SC8I.4 (c)? If not, would you like to share any other options which in your opinion would better satisfy this principle?**



(d) Demonstrate compatibility with existing market arrangements by setting out the manner in which any Demand Side Response Offers accepted by the Licensee are to be treated as Eligible Balancing Actions and included in the System Clearing Contract, System Marginal Buy Price and System Marginal Sell Price;

The DSR mechanism will utilise the existing OCM platform. The OCM is a familiar platform for Shippers and National Grid and is currently used by both for trading purposes. By utilising an existing, well established, highly regarded and understood platform the DSR mechanism will use functionality which is familiar to Shippers and this familiarity could increase participation in this product. The existing OCM Locational Market is proposed to be revised from a market in which all Shipper OCM market participants may both post and accept locational trades and National Grid can only accept such trades, to a market where Shippers may only post trades and National Grid is the sole party able to accept trades.

All DSR Offers will be identified by a DSR Flag and will not become visible on the market platform prior to the declaration of a *GDW*, at which point they become visible to all participants and available for acceptance by National Grid. All accepted DSR Offers will be treated as *Market Balancing Actions (MBA)* and all accepted DSR Offer prices and volumes will feed into *System Clearing processes* for the relevant gas *Day* in accordance with existing arrangements for other *Market Balancing Actions*.

**Q10: Do you consider that this proposed DSR Framework and Methodology satisfies the principle set out in SC8I.4 (d) which requires all DSR Offers to be treated as ‘Eligible Balancing Actions’ and included in System Clearing Contracts and the calculation of Cash-out prices? If not, could you provide details of any compatibility issues that you feel would conflict with this principle?**



e) Promote, and further facilitate, parties making Demand Side Response Offers to the Licensee through open and transparent market-based arrangements;

The DSR mechanism seeks to provide an additional ‘route to market’ for Gas Consumers (via their contracted Shipper/Supplier) to signal their willingness to make available DSR energy quantity, which may not have otherwise been offered through existing commercial market arrangements. DSR Offers may only be accepted by National Grid where a *GDW* has been declared and is in effect for the relevant gas *Day*. This requirement was driven from industry discussions which highlighted that although some Gas Consumers were willing to offer DSR, this was only where such offers were absolutely necessary i.e. at times of significant system stress rather than as a general commercial balancing tool. Therefore Gas Consumers requested that National Grid will only use this DSR Product in these circumstances.

To encourage participation in the DSR mechanism, and reduce costs to Gas Consumers, this is a simple product that, where possible, utilises existing market arrangements and trading platforms e.g. adapting / supplementing the existing UNC defined and established products available on the existing OCM platform through the Locational Market.

This simplified approach aims to effectively and efficiently balance the conflicting priorities of:

- Facilitating the provision of additional DSR;
- Minimise the costs associated with the implementation of the DSR mechanism;
- Minimise any adverse impacts on the development of competition and innovation from industry participants who may want to provide a commercial product to Gas Consumers outside of the centralised DSR mechanism;
- Ensure that a high-level of industry familiarity of the functionality used to offer the DSR Product is maintained during the period of normal system operation.

**Q11: Do you consider that the proposed DSR Framework and Methodology provides you or other Gas Consumers with an additional ‘route to market’?**



**Q12: Does the proposed DSR Framework and Methodology provide a ‘route to market’ for a DSR product that you would be interested in providing?**



f) Not unduly preclude the emergence of commercial interruption arrangements;

As outlined within Ofgem’s Final Policy Decision – SoS SCR’ document the intention of the DSR mechanism is to familiarise Gas Consumers with calculating their *Value of Lost Load (VoLL)* and arranging with their Shipper / Supplier to offer into a DSR mechanism. It has been recognised that the DSR mechanism should not unduly deter the development of a more competitive DSR market and, where such a competitive market is shown to be established then the centrally provided DSR mechanism should be withdrawn, as a competitive market for DSR is likely to be more efficient than a centralised mechanism.

To facilitate the evolution to a competitive DSR market, the DSR development workgroup recognised that the centralised DSR mechanism needs to be a simple “vanilla” product. This would then allow ‘space’ for further development and innovation of more complex / tailored commercial services by industry participants, who may want to provide a more bespoke commercial product to their contracted Gas Consumers. As a result, the DSR mechanism has been designed to utilise existing market arrangements and platforms, including;

- Utilising the existing OCM platform and offer a *Daily* and *Multi-day* product to mirror the options already available on the OCM.
- The DSR mechanism will offer an ‘exercise only’ product with no regular “option fee” payment being made for availability.

We believe that this simple DSR mechanism balances the “market maker” benefits of introducing a centralised DSR service against the risk of stifling the emergence of fully competitive market wide commercial DSR arrangements.

**Q13: Would you agree that the proposed DSR Framework and Methodology does not unduly preclude the emergence of further commercial interruption arrangements? If not, could you provide information regarding which element you feel could prevent the emergence of commercial interruption, and any view on how this could be mitigated?**



(g) Minimise distortions and unintended consequences on existing market arrangements and the principle of parties balancing their own positions in the wholesale gas market;

Within Ofgem’s ‘Final Policy Decision – SoS SCR’ document, Ofgem identified a number of potential unintended consequences, which could arise as a result of implementing a centralised DSR mechanism. One area of interest was the potential unintended consequences that the DSR mechanism could have on the day to day operation of the current National Balancing Point (NBP) Title gas market, in particular

the risk of removing existing liquidity from the OCM Title market. In order to minimise this risk the DSR development workgroup looked in great detail at the issues that surround eligibility of participation in the DSR mechanism and in particular at the inclusion of gas-fired power generation. Within their 'Final Policy Decision – SoS SCR' document Ofgem were “concerned” about the inclusion of gas-fired power generators within the DSR mechanism, stating that the quantitative analysis undertaken by Pöyry showed that their inclusion would not be cost effective due to the low likelihood of the mechanism being utilised.

In the interest of creating a DSR mechanism which 'promotes and further facilitates parties making DSR Offers' and also in “consultation with industry parties”, the DSR Framework and Methodology does not require UNC changes that directly propose the exclusion of gas-fired power generation from this mechanism.

National Grid recognises that the participation of gas-fired power generation in the DSR mechanism could have a number of adverse commercial and competition effects on the wider gas market. For this reason, we have strived to ensure the proposed DSR mechanism is simplistic, and wherever possible utilises existing market arrangements thereby creating no new incentive for gas-fired power generation to participate in the DSR mechanism, as outlined below:

- DSR Product utilises the existing OCM Locational market which is already available to all DMCs including gas fired power generation;
- DSR Product is offered to National Grid as a *Daily* Product and accepted for each gas *Day* exclusively in accordance with *UNC Section D2.2.1 (d)* or as a *Multi-day* product undertaken in accordance with *UNC Section D4- Multi-Day Balancing Actions* which again is already available to all DMCs;
- No “up-front” payments will be made as part of the DSR mechanism; DSR Payments are only made if a DSR Offer is accepted. There are no payments for availability (no option fees) which again is consistent with existing market arrangements;
- Active Title market participants such as market participants with gas-fired generation assets, would likely want to remain on the more active OCM Title 'many to many' market rather than participate in the less liquid DSR Market where they are at greater risk of not having their offer accepted;
- The OCM already has the functionality to allow *Related Market Offers* (Linked bids) which would mean that any market participant, including those with gas-fired power generation, assets could participate in both markets at the same time, maintaining liquidity within the OCM Title market.

In consequence, as outlined within the DSR Framework and Methodology, it is our opinion that, the proposed DSR mechanism does meet the obligation to minimise distortions and unintended consequences on existing market arrangements and the principle of parties balancing their own positions in the wholesale gas market.

**Q14: Do you foresee any distortions or unintended consequences that the introduction of the DSR Framework and Methodology may have on the existing gas market or gas supply contract arrangements and the principle of parties balancing their own positions in the wholesale gas market?**

(h) Ensure that Demand Side Response is procured in a manner consistent with the Licensee's duties under the Act and, in particular, the Licensee's obligation to operate the pipe-line system to which this licence relates in an efficient, economic and co-ordinated manner.

In July 2012 Red Point Energy were commissioned to conduct economic modelling to assess Ofgem's proposed final decision on the gas SoS SCR. This report<sup>4</sup> outlined that under current arrangements the likelihood of a *GDE* affecting *Firm-Daily Metered* customers was a 1 in every 55 years occurrence, proving that even under current arrangements a *GDE* is a very rare event. Whilst recognising this, Ofgem indicated that the gas market could further benefit from the establishment of DSR mechanism, where large *Gas Consumers* could offer to voluntarily reduce their demand ahead of the system entering a *GDE*. However, for the DSR mechanism to be effective, Ofgem noted that it should also be cost effective. Based on additional economic modelling by Pöyry Ofgem advised against the inclusion of annual option fee payments to Gas Consumers in return for DSR commitments.

The inclusion of option fees within the DSR mechanism was discussed at a number of the DSR Workgroups, where a number of stakeholder groups expressed views that without option fees they would either not participate or would only be able to offer limited DSR energy quantities. These stakeholders highlighted that the inclusion of option fees may encourage additional amounts of DSR to be made available and could improve the efficiency of the operation of the pipeline system, by providing further system balancing options to National Grid. When looking at the viability of options fees, National Grid considered the relative efficiency of inclusion of such fees (as outlined in Pöyry's analysis of a DSR mechanism) against the likelihood of *GDE* occurrence as previously outlined in Red Point's analysis. Based on this assessment and the likelihood of this rare event, National Grid has concluded that the inclusion of

<sup>4</sup> <https://www.ofgem.gov.uk/ofgem-publications/40922/120731gasscrpp.pdf>

options fees cannot be justified against the Relevant Objective of an 'economic and efficient pipeline system' and as a result they have not been included within the design of the DSR mechanism.

Throughout the development of the DSR mechanism, both National Grid and the industry have expressed views to keep the design simple in order to attract participation, minimise costs and maximise the space for the emergence of a fully competitive market. This is particularly true when considering the platform on which DSR Offers will be submitted and accepted. For this reason it is proposed that the DSR mechanism will utilise the existing Locational market within the OCM Platform. The intention is for this existing market to be revised from one in which all Shipper OCM market participants may both post and accept locational trades and National Grid can only accept such trades to a market where Shippers may only post trades and National Grid becomes the sole party able to accept trades.

**Q15: Do you believe that the proposed DSR Framework and Methodology facilitates the procurement of DSR in a manner consistent with the licensee's obligation to operate the pipeline system in an efficient and economic manner?**



**e) Provision of reasonable economic incentives for relevant Suppliers to secure that the domestic customer supply security standards**

As outlined by principle (d) within Special Condition 8I, accepted DSR Offer prices and quantities will be required to feed into the *System Clearing* (Cash-out) processes for the *Day*. We believe that the DSR mechanism facilitates the discovery of appropriate Shipper incentives via price signals to the market for relevant Shippers and Suppliers to secure that the domestic customer supply security standards are met. This will be achieved as the cash-out prices will reflect the value that the Gas Consumer places on their provision of Demand Side Response.

**Q16: Do you consider that the proposed DSR Framework and Methodology would provide an improvement to the incentives on the relevant Suppliers to secure the domestic customer supply security standard?**



## Section 5

### When might these changes come into effect?

---

At present we are not proposing a change to the UNC, Special Condition 8I does not specify an implementation date for the DSR Framework and Methodology, although Ofgem have indicated that a winter 2016-17 delivery would be preferable.

We are working towards the timescales specified within the licence obligation for the development of the DSR Framework and Methodology, as outlined below:

- The Licence Obligation states that the DSR Framework and Methodology must be developed in consultation with the Industry; a report submitted for industry wide consultation, and the report and consultation responses sent to the Authority for approval no later than the **1 March 2015**; and
- No later than **90-days** following the receipt of the proposed DSR Framework and Methodology report, the Authority will make a decision on whether to approve the DSR Framework and Methodology. Where the authority approves the Proposed DSR Framework and Methodology Report, it may direct National Grid to run a paper based Trial;
- Upon Completion of the Trial, National Grid will be required to prepare and issue a report to the Authority within **28-days** of the final day of the Trial;
- **28 days** after receiving the Trial report, where the Authority, has not stated otherwise, National Grid is required to develop the appropriate modifications to the Uniform Network Code and other processes and systems to enable it to implement the DSR Framework and Methodology.

## Section 6

### What will this cost?

---

It is not yet fully clear what the development, implementation and operational cost, associated with this proposal, will be. However, we anticipate that there may be potential costs associated with:

- National Grid's running, administering and reporting on the Trial,
- The amendments needed to the OCM Locational market, in terms of systems and market rules;
- Shipper / Supplier and Gas Consumer administration costs associated with establishing contracts and inputting / monitoring DSR Offers; and

Having detailed the above, we can say that, throughout the development of this service, we and industry representatives have been mindful of not introducing unnecessary or inefficient costs into the current regime. An example of this is the proposal to adapt an existing part of the OCM platform to enable it to fulfil the remit of this service and therefore avoid the costs of providing an additional market.



## Section 7

### Frequently asked questions?

---

#### 1. Which Gas Consumers can participate?

In order to participate in DSR a Gas Consumer has to be *Daily Metered Supply Point* which has an annual quantity greater than 2 million therms and is able to offer a minimum DSR energy quantity of 100,000 kWhs/day in a DSR Offer Notice.

#### 2. Over what duration can a DSR Offer be made?

A DSR Offer may be made either on an individual daily basis with the option of a 7 day energy volume profile or on a multiday basis with identical energy volumes on each day within the multiday offer. Additionally a Gas Consumer can decide whether a DSR Offer can be replicated in the following period e.g. if a Gas Consumer has 100,000 kWh's available on every Monday the offer can be set to post that energy quantity offer on each and every Monday.

#### 3. How long does a DSR Offer last after it is exercised?

A DSR Offer can be submitted on a daily basis (daily product) or on a multi-day basis (multi-day product). Once the DSR Offer has been exercised it was last for the duration for which the contract is struck. e.g. for a daily product this will last for one day, for a multiday product this could last up to 7 days, but this is dependent upon the original DSR Offer duration thus the contract agreed.

#### 4. How will the DSR Product accommodate consumers with variable load profiles?

The DSR Product has been designed to provide Gas Consumers with the flexibility to submit offers to the DSR mechanism which aligns with their load profile; this is accommodated by allowing a series of different offer structures as outlined below;

- a “7-day profiled” offer (enabling the ability to submit differing values (volume and price) for each day of the week or the same value for each day if required) within which the offer values may continuously roll over once the initial 7-day profiled offer has completed; or
- an offer that is input for a *Multi-Day* basis; (enabling Gas Consumers the ability to offer DSR energy quantity for a set duration of time at a pre-determined price up to a maximum of 7 days e.g. A Gas Consumer offers to turn down by their DSR energy quantity for 4 days in a row).

#### 5. Where will NG and Shippers make these DSR trades?

The DSR Service will utilise the existing OCM Locational Market (further information on the OCM Locational market can be found in section 3.2.).

#### **6. How does the DSR product accommodate partial interruption?**

The DSR mechanism allows Gas Consumers to turn down a proportion of their sites energy quantity and does not require sites to cease offtake of gas. This turn down can be offered in multiple tranches of energy quantity, which may be priced individually, according to the Value of Lost Load (VoLL) associated to each separate tranche. Each tranche will be submitted as a single DSR Offer and must meet all of the eligibility criteria for a DSR Offer (e.g. minimum size of 100,000kwh/day). Therefore it is possible for there to be more than one DSR Offer at a specific *Daily Metered Supply Point*.

#### **7. When will NG potentially use this DSR product?**

National Grid will only consider accepting DSR Offers in the period following the declaration of a *Gas Deficit Warning (GDW)* and the former of the (*GDW*) being revoked or the end of the *Gas Deficit Emergency (GDE) Stage 1* (the DSR Period).

#### **8. How will payments be made for DSR?**

DSR Payments will be in accordance with the agreed DSR Offer price for the contract duration. These will be paid within the same timescales as *Market Balancing Actions* which are outlined in the UNC, unless the contract runs beyond the end of *Stage 1 GDE*, in which case the payment arrangements introduced under the SCR will apply (see UNC section Q6.4.7<sup>5</sup>).

#### **9. Will payments still be paid if we go into a GDE?**

Yes, once a DSR Offer is exercised a DSR Payment will be made for the duration of the DSR Offer; this is irrespective of any instruction from National Grid that the GDW for the relevant gas *Day* has been revoked. In the event that the accepted Multi-day Offer contract durations runs beyond *Firm Load Shedding*, the payment will continue to be paid in accordance with the agreed DSR Offer price until the contract duration finishes.

#### **10. How quickly can a Gas Consumer resume normal consumption?**

Within the DSR Period Gas Consumers may resume consumption on the day following the end of their DSR Offer contract. Where a DSR Offer is submitted and is subsequently accepted by National Grid on the *Day* where the situation progresses into a *Gas Deficit*

---

<sup>5</sup> UNC text to be implemented September 2015 In accordance with the Authority's direction on Gas SCR <http://www.gasgovernance.co.uk/sites/default/files/gasscrs36cdirectiondraft.pdf>

*Emergency Stage 2*, the *Supply Point* at which the DSR Offer has been accepted will be required to maintain the associated reduction in its offtake quantity until instructed by the National Emergency Co-ordinator (NEC) that its offtake reduction is no longer necessary.

**11. When will DSR Offers be visible to the market?**

For all market participants, including National Grid, DSR Offers will only become visible on the 'On the day Commodity Market' (OCM) Locational Market once a *Gas Deficit Warning* has been declared for the relevant gas *Day*.







**12. How will DSR affect System Clearing Prices (cash-out)?**

All accepted DSR Offers will be included in the calculation of *System Clearing prices* (Cash-out) for the relevant gas *Day* and will be treated as *Market Balancing Actions*.

## Section 8

# Consolidated Consultation Questions

In order to ensure that attention is drawn to Consultation Questions that are most relevant to you, we have colour coded the questions that may have greater relevance to you and your organisation.

-  Eligible Gas Consumer (Annual Quantity (AQ) greater than 2 Million Therms)
-  Shipper
-  Supplier
-  User Group Representative
-  Transporter
-  Other

**Q1: Do you consider that the DSR Framework and Methodology should set out provisions for the gas procurement arrangements between National Grid and Shippers, with only high level references to the Demand Side Response contractual arrangements between Shippers/Suppliers and Gas Consumers?**



**Q2: Do you consider that the current On the Day Commodity Market provides an appropriate platform to facilitate the provision of a DSR Product?**



**Q3: Does the proposed DSR Product meet your expectations in respect of providing sufficient market offer flexibility to match your operational requirements when determining and offering DSR? If not, which aspect(s) would you change, add or remove?**



**Q4: Do the criteria and arrangements set out within the Framework and Methodology for the posting and processing of DSR Offers meet your requirements? If not, could you describe the new issues you would like to be considered?**







**Q5: In respect of the development of the DSR Framework and Methodology, do you consider that you have been given sufficient opportunity to provide your input into the development of the DSR Framework and Methodology? Have we listened and taken account of your views?**




**Q6: Do you consider that the Draft DSR Framework and Methodology, the proposed DSR Mechanism and the suggested Shipper/Supplier to Gas Consumer service agreement structure delivers an efficient and economic approach, through which Gas Consumers may provide DSR, that may otherwise not be available during periods of acute gas market stress?**



Q7: Do you consider that the proposed DSR Framework and Methodology appropriately meets the requirements set out in the Licence principles, i.e. that only signatories to Uniform Network Code may post a DSR Offer? If not, please detail how you feel this SC8I.4 (a) licence obligation may be better achieved? 




Q8: Do you consider that the proposed DSR Framework and Methodology satisfies the eligibility criteria set out in the SC8I.4 (b)? If not, do you have any views on how to better satisfy this principle?   

Q9: Are you satisfied that the introduction of the DSR Framework and Methodology through the proposed revisions to the Locational Market of the OCM Platform is the most appropriate approach to meet the principles set out in SC8I.4 (c)? If not, would you like to share any other options which in your opinion would better satisfy this principle? 


Q10: Do you consider that this proposed DSR Framework and Methodology satisfies the principle set out in SC8I.4 (d) which requires all DSR Offers to be treated as 'Eligible Balancing Actions' and included in System Clearing Contracts and the calculation of Cash-out prices? If not, could you provide details of any compatibility issues that you feel would conflict with this principle? 



Q11: Do you consider that the proposed DSR Framework and Methodology provides you or other Gas Consumers with an additional 'route to market'?    





Q12: Does the proposed DSR Framework and Methodology provide a 'route to market' for a DSR product that you would be interested in providing?   

Q13: Would you agree that the proposed DSR Framework and Methodology does not unduly preclude the emergence of further commercial interruption arrangements? If not, could you provide information regarding which element you feel could prevent the emergence of commercial interruption, and any view on how this could be mitigated?   

Q14: Do you foresee any distortions or unintended consequences that the introduction of the DSR Framework and Methodology may have on the existing gas market or gas supply contract arrangements and the principle of parties balancing their own positions in the wholesale gas market? 

Q15: Do you believe that the proposed DSR Framework and Methodology facilitates the procurement of DSR in a manner consistent with the licensee's obligation to operate the pipeline system in an efficient and economic manner?  

Q16: Do you consider that the proposed DSR Framework and Methodology would provide an improvement to the incentives on the relevant Suppliers to secure the domestic customer supply security standard?  

Q17: We would value any additional comments you would like to share with us regarding the development of the DSR Framework and Methodology?      

## Responses

---

Thank you for taking the time to read this consultation. Please send your responses and or feedback by 23<sup>rd</sup> January 2015 to the following email:

[enquires@gasgovernance.co.uk](mailto:enquires@gasgovernance.co.uk)

Or alternatively by post to:

**Claire Thorneywork**  
**National Grid House,**  
**Warwick Technology Park,**  
**Gallows Hill,**  
**Warwick,**  
**CV34 6DA**

# Appendix 1

## Glossary

---

In the context of the DSR Framework and Methodology Consultation document the following definitions should be applied to the terms outlined below;

**Demand Side Response (DSR)** - The reduction in an Eligible DMC's rate of gas offtake in the period following declaration of a GDW

**DSR Offer** - Each individual trade/tranche offer that may be submitted on to the OCM Locational platform

**DSR Period** - The period between the GDW being declared for the gas Day and the earlier of: (i) the revocation of the GDW; or (ii) the end of GDE Stage 1. This is the period where National Grid may accept DSR Offers

**DSR Product** - The basis of the DSR Framework and Methodology which puts in place the arrangements by which all DSR Offers will be placed and accepted. As set out in section [4] of the DSR Framework and Methodology

**DSR Service** - The framework as set out in the DSR service agreement in which the Gas Consumer and Shipper/Supplier will determine, agree and offer DSR to National Grid. As set out in section 2 of the DSR Framework and Methodology

**Eligible DMC** – An Eligible DMC will be:

- A Supply Point with a registered demand >2million therms per Annum (2M tpa);
- Able to offer a minimum DSR Offer volume of 100,000 kWhs/day in any one DSR Offer Notice

**Firm Load Shedding (FLS)** - During Stage 2 of a GDE; upon direction from the Network Emergency Coordinator (NEC), National Grid and relevant Transporters may instruct the End Users to curtail gas offtake at specified offtakes

**Gas Consumers** – eligible DMC sites with a Supply Point which has a demand greater than 2 million therms per annum and those who are able to offer a minimum energy quantity of 100,000 kWhs/day in any one DSR Offer

**GDE** - Gas Deficit Emergency ref: UNC Section Q3.2

**GDW** - Gas Deficit Warning ref: UNC Section V5.9

**Multi-Day** – A Offer to reduce demand offtake for a period greater than one gas Day up to a maximum of 7 gas Days ref: UNC Section D4

**OCM Locational Market** - The market that DSR Offers may be submitted upon, as set out in section 3 of the DSR Framework and Methodology

**The GDE Stages** - GDE Stages are defined in UNC TPD Section Q and in the Network Gas Supply Emergency Classifications as provided in the National Grid Safety Case for a Network Gas Supply Emergency

**Tick Down** - A DSR Offer may be offered with a feature that reduces the volume of DSR available for the gas Day as the unaccepted Offer progresses through that Day

#### Schedule

#### Special Condition 8I: Development and implementation of a Demand Side Response methodology for use after a Gas Deficit Warning

##### Introduction

8I.1 The Licensee must:

- (a) develop a methodology (the “Demand Side Response Methodology”) for assessing and accepting Demand Side Response Offers;
- (b) submit a draft version of the Demand Side Response Methodology to the Authority for approval no later than 1st March 2015;
- (c) where Directed by the Authority to do so, run a trial of the approved draft Demand Side Response Methodology;
- (d) following such a trial, submit to the Authority a report on the outcome of the trial and a final version of the Demand Side Response Methodology amended to address issues identified by the Licensee during the trial; and
- (e) where Directed by the Authority to do so, implement the Demand Side Response Methodology.

##### Part A: Development of a Demand Side Response Methodology

8I.2 The Licensee must develop the Demand Side Response Methodology in consultation with interested parties.

8I.3 The Licensee must use reasonable endeavours to ensure that it develops the Demand Side Response Methodology in accordance with the principles set out in paragraph 8I.4 (the “Demand Side Response Methodology Principles”).

8I.4 The Demand Side Response Methodology Principles are that the Demand Side Methodology must:

- (a) ensure that any party making a Demand Side Response Offer is a party to the Uniform Network Code;
- (b) set out the criteria for determining that particular “DMC” Supply Point Components are “DMC” Supply Point Components in respect of which a party may not make Demand Side Response Offers;
- (c) allow the Licensee to accept Demand Side Response Offers only where a Gas Deficit Warning is in place or within Stage 1 of a Gas Deficit Emergency;
- (d) demonstrate compatibility with existing market arrangements by setting out the manner in which any Demand Side Response Offers accepted by the Licensee are to be treated as Eligible Balancing Actions and included in the System Clearing Contract, System Marginal Buy Price and System Marginal Sell Price;
- (e) promote, and further facilitate, parties making Demand Side Response Offers to the Licensee through open and transparent market-based arrangements;
- (f) not unduly preclude the emergence of commercial interruption arrangements;
- (g) minimise distortions and unintended consequences on existing market arrangements and the principle of parties balancing their own positions in the wholesale gas market; and
- (h) ensure that Demand Side Response is procured in a manner consistent with the Licensee’s duties under the Act and, in particular, the Licensee’s obligation to operate the pipe-line system to which this licence relates in an efficient, economic and co-ordinated manner.



## **Part B: Submission, approval and publication of the Demand Side Response Methodology**

8I.5 The draft Demand Side Response Methodology submitted by the Licensee must be accompanied by any written representations (including any proposals that have not been accepted by the Licensee) that were received from interested parties during the consultation process and have not been withdrawn.

8I.6 The Authority will make its decision on whether to approve the Demand Side Response Methodology within 90 days beginning on the date on which the Licensee submits the Demand Side Response Methodology. In considering whether to approve the draft Demand Side Response Methodology, the Authority may have regard to whether it is consistent with the Demand Side Response Methodology Principles.

8I.7 Where the Authority approves the draft Demand Side Response Methodology, it may direct the Licensee to:

- (a) conduct a trial of the draft Demand Side Response Methodology; and
- (b) publish the draft Demand Side Response Methodology, in accordance with Part C of this condition.

8I.8 If the Authority does not approve the draft Demand Side Response Methodology, it may Direct the Licensee to consult with interested parties and submit to the Authority for approval a revised draft Demand Side Response Methodology in accordance with any conditions and within such a timescale as may be set out in its Direction.

## **Part C: Trial and implementation**

8I.9 Where the Authority directs the Licensee to conduct a trial pursuant to paragraph 8I.7 above, the Licensee must:

- (a) conduct a trial of the draft Demand Side Response Methodology in order to assess the effectiveness of the Demand Side Response Methodology proposed by the Licensee; and
- (b) within 28 days beginning on the last day of the trial, submit to the Authority a report on the outcome of the trial and any proposed changes to the draft Demand Side Response Methodology.

8I.10 Following completion of the trial and the making of submissions to the Authority pursuant to paragraph 8I.9 above, unless the Authority directs otherwise within 28 days, the Licensee must:

- (a) develop appropriate modifications to the Uniform Network Code and other processes and systems to enable it to implement the Demand Side Response Methodology;
- (b) once the modifications, processes and systems are complete, implement the Demand Side Response Methodology as soon as is reasonably practicable; and
- (c) publish the final Demand Side Response Methodology on its website and in such other manner as the Authority may direct.

## **Part D: Exception to compliance with condition**

8I.11 The Licensee is not required to comply with this condition to such extent and subject to such conditions as the Authority may from time to time direct.

8I.12 The Authority may, following consultation with the Licensee and interested parties, direct that the Licensee must temporarily or permanently cease operation of the Demand Side Response Methodology.

**Part E: Revising the Demand Side Response Methodology**

8I.13 The Licensee must, if so directed by the Authority, and in any event at least once in each Formula Year, review and if appropriate revise the Demand Side Response Methodology implemented in accordance with paragraph 8I.10 in consultation with interested parties.

8I.14 The consultation must allow a period of not less than 28 days in which interested parties can make representations or objections to the Licensee.

8I.15 Within seven days after completing the consultation, the Licensee must send to the Authority:

- (a) a report on the outcome of the review;
- (b) a statement of any proposed revisions to the Demand Side Response Methodology that the Licensee (having regard to the outcome of the review) reasonably considers would better achieve the Demand Side Response Methodology Principles; and
- (c) any written representations or objections (including proposals for revising the statement that have not been accepted by the Licensee) that were received from interested parties during the consultation process and have not been withdrawn.

8I.16 The Licensee may revise the Demand Side Response Methodology only in accordance with any revisions set out in the statement required by paragraph 8I.15(b) and only if the Authority has not directed otherwise within 28 days of receiving the documents referred to in paragraph 8I.15 above.

## Appendix 3

# The DSR Framework and Methodology Document

---

### Background

In February 2014 Ofgem published its Final Policy Decision Consultation on the Gas Security of Supply (SoS) Significant Code Review (SCR). As part of the Consultation, Ofgem proposed a revision of National Grid's NTS Transporters Licence to introduce a new Special Condition 8I (SC8I) – 'Development and Implementation of a Demand Side Response (DSR) Methodology for use after a Gas Deficit Warning'. The Licence revisions were approved by the Authority in September 2014. SC8I requires National Grid NTS to:

1. Develop a framework and methodology (the "Demand Side Response Methodology"), in consultation with the industry, for assessing and accepting Demand Side Response Offers, with a draft to be submitted to the Authority no later than 1<sup>st</sup> March 2015;
2. Where Directed by the Authority to do so, run a Trial of the approved draft Demand Side Response Methodology;
3. Following such a Trial, submit to the Authority a report on the outcome of the Trial and a final version of the Demand Side Response Methodology, amended to address issues identified by the Licensee during the Trial; and
4. Where Directed by the Authority to do so, implement the Demand Side Response Methodology.

The DSR Framework and Methodology arrangements described within this document seek to ensure that all relevant SC8I Licence Condition principles are met.

### The DSR Framework and Methodology

Ofgem's SCR process identified that the gas market would benefit from large End Users (i.e. the Gas Consumer) reducing demand voluntarily ahead of an emergency. However, during the same process stakeholders expressed doubts that a market for commercially contracted reduction in demand would emerge of its own accord. During this process a number of stakeholders also suggested the development of a centralised mechanism for DSR. Ofgem has since directed National Grid NTS to develop a centralised mechanism for specific types of End Users to Offer their DSR directly to National Grid NTS. It is envisaged that establishing this mechanism will ultimately serve to 'kick-start' the market for commercially contracted reduction in demand between End Users and Shippers/Suppliers in the medium to long term and thereby increase competition in the provision of DSR.

Over the last year we have held several industry engagement sessions, meeting with approximately 60 Large Industrial End Users, Shippers and Suppliers, and initiated a suite of Industry Workgroups for Modification Proposal 0504 – 'Development of a Demand Side

Response Methodology'. Based on what we have learnt through Industry engagement and DSR workgroup sessions, National Grid NTS has drafted a DSR Framework and Methodology that seeks to reflect the views expressed by Industry and represent the broad workgroup consensus of DSR discussions to date.

The DSR Framework and Methodology seeks to provide an additional 'route to market' through which End Users (via their Shipper/Supplier) can signal their willingness to make available additional DSR energy quantity, i.e. DSR energy quantities which would not otherwise be offered through existing market mechanisms. Encouraging DSR energy quantity to come forward, post a Gas Deficit Warning (GDW), but prior to the end of Gas Deficit Emergency (GDE) Stage 1 may, in some circumstances, provide sufficient additional system balancing volumes to avoid the system entering a GDE Stage 2. This may enhance the security of supply to more critical load and help all affected parties avoid the high costs and risks associated with an escalation into the later stages of a GDE.

## **DSR Framework and Methodology**

### **Index**

Section 1	Definitions
Section 2	the DSR Service
Section 3	OCM Locational Platform
Section 4	the DSR Product
Section 5	Eligibility
Section 6	DSR participants
Section 7	DSR Contractual relationships
Section 8	DSR Offer Price
Section 9	Posting DSR Offers
Section 10	DSR Offer Acceptance arrangements process
Section 11	Exercising the accepted DSR Offers process
Section 12	Treatment of accepted Offers when entering into a GDE Stage 2
Section 13	Payment Arrangements
Section 14	Settlement Arrangements
Section 15	Liability Arrangements
Section 16	UNC Provisions

## DSR Methodology

### Section 1. Definitions

#### 1.1. Definitions:

- |   |                                  |  |
|---|----------------------------------|--|
| a | DSR                              | Demand Side Response. The reduction in an Eligible DMC's rate of gas offtake in the period following declaration of a GDW.   |
| b | DSR Service                      | The framework within which the end to end DSR processes are operated. As set out in section 2 of this document.  |
| c | DSR Offer                        | Each individual trade offer that may be submitted on to the OCM Platform– Locational market.   |
| d | DSR Product                      | The arrangements by which all DSR Offers will be placed and accepted. As set out in section 4 of this document.  |
| e | DSR Period                       | The period between the GDW being declared for the gas Day and the earlier of: (i) the revocation of the GDW; or (ii) the end of GDE Stage 1. This is the period where National Grid NTS may accept DSR Offers. |
| f | OCM Platform – Locational market | The market that DSR Offers may be submitted upon. As set out in section 3 of this DSR Methodology.   |
| g | GDW                              | Gas Deficit Warning ref: UNC Section V5.9.   |
| h | GDE                              | Gas Deficit Emergency ref: UNC Section Q3.2  |
| i | Firm Load Shedding (FLS)         | During Stage 2 of a GDE; upon direction from the Network Emergency Coordinator (NEC), National Grid NTS and relevant Transporters  |

	may instruct the End Users to curtail gas offtake at specified sites. Ref: UNC Section Q3.5.
j Tick Down	A DSR Offer may be offered with a reducing down feature that reduces the volume of DSR available on the gas Day as the unaccepted Offer progresses through the Day.
k The GDE Stages	GDE Stages are defined in UNC TPD section Q3.2 and in the Network Gas Supply Emergency Classifications as provided in the National Grid NTS safety case for a Network Gas Supply Emergency
l Eligible DMC	As set out in section 5.2 of this DSR Framework and Methodology

Where capitalised words and phrases are used within this document, those words and phrases shall usually have the meaning provided within the Uniform Network Code (unless they are otherwise defined within the terms detailed above).

## **Section 2. DSR Service**

2.1. The DSR service features two principle contractual arrangements:

- **For reduction in gas quantity offtaken, at relevant Site** – Shipper/Supplier to End User contractual arrangement. On behalf of the End User (in some cases through instruction by the Supplier) the Shipper will agree to place an offer onto the DSR mechanism, which reflects the agreed DSR energy quantity and price for End User's reduction in offtake from the NTS. In return the End User commits to honouring and delivering on the agreed energy quantity reduction if called to do so by the relevant Shipper following acceptance of the offer by National Grid. (Note: Requirements for this aspect of the DSR mechanism shall be defined by the Shipper, Supplier End User through their DSR Service agreement)s; and
- **For the procurement of the gas associated the DSR Offer** – Shipper to National Grid NTS contractual arrangements. Under prescribed parameters and criteria set out in this DSR Framework and Methodology, the Shipper will offer to sell title to gas (associated to the DSR Offer), to National Grid, in its Role as Residual Balancer.

- 2.2. The End User (in some cases through the Supplier) will work together with their registered Shipper to set-out and agree details, criteria and arrangements associated with posting the DSR Offer(s) for an Eligible site onto the OCM Platform – Locational market. DSR Offers may be placed, updated or withdrawn, at any time up to the declaration of a GDE Stage 2.
- 2.3. DSR Offers associated to the DSR Service may only be accepted by National Grid NTS and only for a gas Day in which a GDW has been declared and is in effect. DSR Offers posted onto the Locational market will be available for National Grid NTS to accept throughout the DSR Period.
- 2.4. National Grid NTS will promptly notify the OCM Market Operator that a GDW has been declared and is in effect and also when a GDW has been revoked.
- 2.5. Where a DSR Offer is accepted by National Grid NTS on the OCM Platform – Locational market;
  - 2.5.1. The Shipper will notify the End User of the requirement to reduce their notified End Of Day (EOD) offtake by an energy quantity at least equal to the DSR Offer (including any allowances for ‘Tick down’).
  - 2.5.2. The Gas Balance position, for both the Shipper and National Grid NTS, in its Residual Balancing role, registered on the UK Link system, will be adjusted to reflect the completed gas trade on the OCM Platform – Locational market.
  - 2.5.3. DSR Offers may be accepted:
    - a Solely by National Grid NTS for National Balancing purposes; and
    - b Post the declaration of a GDW up to the end of Gas Deficit Emergency Stage 1; and
    - c Where the DSR Offer meets the criteria set out in this DSR Framework and Methodology.

### **Section 3. The OCM Locational Market**

The OCM’s Locational market will be revised from a market in which Shipper OCM Market participants may both post and accept Locational bids and offers to a market where National



Grid NTS is permitted to accept Locational bids and offers; and Shipper Market participants are only able to post Locational bids and offers.

- 3.1. National Grid NTS will be the only Market participant on the OCM Locational market able to accept Locational bids and Offers;
- 3.2. As Network Code signatories able to post Physical Offers, Shippers will be the only Market participants able to post Locational bids and offers ;
- 3.3. DSR Offers will be posted on to the OCM Locational Market;
- 3.4. DSR Offers will be identified by a DSR Flag;
- 3.5. DSR Offers will not be visible on the Locational market until a GDW for a gas Day has been declared;
- 3.6. Where a DSR Offer is accepted it will be regarded as a 'Locational Market Transaction' that will be undertaken in accordance with UNC section D2.2.1 (d) a 'Locational Market Transaction'; and
- 3.7. For the avoidance of doubt, all accepted DSR Offers will be included in the system clearing processes and cash-out for the relevant gas Day.

#### **Section 4. The DSR Product**

- 4.1. The DSR Product provides 2 items:
  - a A specified energy quantity of DSR to be provided by the End User; and
  - b A Gas Trade for the equivalent DSR energy quantity provided by the Shipper.
- 4.2. Features of the DSR Product:
  - 4.2.1. The DSR Product must be associated with a specific Daily Metered Supply Point that has a registered Annual Quantity (AQ) greater than 2 million therms (DMC).
  - 4.2.2. The Product must be submitted onto the OCM Platform– Locational market by a Registered User at the relevant DMC.
  - 4.2.3. The Product may be offered as;
    - a a Daily product and accepted for each gas day exclusively in accordance with UNC Section D2.2.1 (d) a 'Locational Market Transaction' ; or
    - b a Multiday product undertaken in accordance with the UNC Section D4 – Multi-Day Balancing Actions ;

- 4.2.4. The DSR Product must be submitted onto the OCM Platform - Locational market as a DSR Offer, prior to the declaration of a Gas Deficit Emergency (GDE) Stage 2;
- 4.2.5. The DSR Product may be offered in separate tranches of energy quantity, which may be priced individually;
- 4.2.6. Each tranche will be submitted as a single DSR Offer;
- 4.2.7. There may be more than one DSR Offer at a specific DMC;
- 4.2.8. Each DSR Offer must be greater than 100,000 kWhs (4k therms on OCM);
- 4.2.9. Where the DSR Offer has been submitted onto the OCM Platform - Locational market for a relevant gas Day, and remain a valid offer, National Grid NTS may accept the Offer, during the DSR Period;
- 4.2.10. Features of the daily DSR Offer product. The daily DSR Offer may be offered in the form of:
  - a an offer that is input on a daily basis; or
  - b a 7 Day profile of daily offers (submit differing values for each day of the week if so required) the 7 day profile of daily offers will be replicate automatically until revised or withdrawn.

## **Section 5. Eligibility**

- 5.1. Only a Registered User at the Supply Points that comply with the eligibility rules specified in this DSR Framework and Methodology may enter offers into the DSR mechanism. In turn the DSR Framework and Methodology must satisfy the criteria and obligations set out in the GT Licence obligation SC8l.
- 5.2. An Eligible Supply Point is a 'DMC' customer as defined in the UNC Section A4.5. An Eligible DMC will be:
  - a A Supply Point with a registered demand >2million therms per Annum (2M tpa);
  - b Able to offer a minimum DSR Offer energy quantity of 100,000 kWhs in any one DSR Offer Notice.
- 5.3. A Shipper may only submit a DSR Offer onto the OCM Platform – Locational market for an Eligible DMC where:
  - a it is a Registered User at the Eligible DMC; and
  - b it has entered into a DSR Service Contract, with the relevant End User, prior to the relevant GDW being declared.

## **Section 6. DSR Participants**

- 6.1. There are four/five counter parties participating in the DSR arrangement.
  - 6.1.1. End User at the Eligible DMC;
  - 6.1.2. Shipper & Supplier;
  - 6.1.3. OCM Market Operator; and
  - 6.1.4. National Grid NTS
  
- 6.2. **End Users**
  - 6.2.1. The End User, with an Eligible DMC, may choose to enter into a DSR arrangement with its registered Shipper.
  
- 6.3. **The Shipper/Supplier**
  - 6.3.1. The Shipper/Supplier, who must be a Registered User at the Eligible DMC, is the party eligible to participate on the OCM Platform - Locational market on behalf of the relevant End User with the Eligible DMC.
  
- 6.4. **OCM Market Operator**
  - 6.4.1. The OCM Market Operator will provide the Locational market within the OCM.
  - 6.4.2. The OCM Market Operator will facilitate offer and acceptance of DSR trades in accordance with the OCM Market Rules contract, and UNC Section Annex D1, which will reflect the DSR Framework and Methodology provisions.
  
- 6.5. **National Grid NTS**
  - 6.5.1. National Grid NTS will be the sole party that may accept DSR Offers within the DSR mechanism.
  - 6.5.2. National Grid NTS will only accept DSR Offers for national balancing purposes.
  - 6.5.3. DSR Offers for the relevant gas Day may be accepted by National Grid NTS at any time following the declaration of a GDW for the relevant gas Day and for the duration of the DSR Period.
  - 6.5.4. The acceptance of a DSR Offer by National Grid NTS does not affect, or set aside, the Network Emergency Coordinator's (NEC), National Grid NTS's or other relevant Transporters' rights or obligations when undertaking their duties under the provisions set out in 'The Gas Safety (Management) Regulations 1996 - NEC Safety Case'.

### **Section 7. DSR Contractual Relationship**

- 7.1. Prior to posting a DSR Offer the registered Shipper must seek agreement with the relevant End User that the registered Shipper may post DSR Offers onto the OCM Platform - Locational Market, on behalf of the End User;
- 7.2. Where a DSR Offer is accepted by National Grid NTS:
  - 7.2.1. The DSR Offer acceptance will be a contractual arrangement between the Shipper and National Grid NTS through the existing OCM Market Rules and UNC contractual arrangements.

### **Section 8. The DSR Offer Price**

- 8.1. The DSR Offer price will be a p/kWh per gas Day conforming to OCM Market Rules.
- 8.2. The derivation of the DSR Offer price will be agreed between the relevant End User and its registered Shipper/Supplier.
- 8.3. Accepted DSR Offers will be treated in a similar manner to a Market Balancing Actions (MBA) and as such all accepted DSR Offer prices will feed into the System Average Price (SAP) and System Marginal buy Price (SMPb) calculation for the relevant gas Day in accordance with existing arrangements for other MBAs.
- 8.4. Payment for the accepted DSR Offer will be paid within the same timescales prescribed for all other MBAs, and in accordance with the UNC TPD Section S;
- 8.5. The Shipper will pay the End User the agreed DSR payment for an accepted DSR Offer in the timescale agreed by the two parties

### **Section 9. Posting DSR Offers**

- 9.1. A DSR Offer energy quantity placed on the OCM Platform – Locational Market, in respect of any DSR Offer, must be greater than 100,000 kWhs.
- 9.2. In respect of a DSR Offer submitted through the gas Day on a 'Tick Down' option, once the DSR Offer reduces below the allowed minimum quantity the DSR Offer will be withdrawn from the market for the relevant gas Day, this is due to the DSR Offer falling below the minimum bid criteria and will therefore not be a valid offer.
- 9.3. DSR Offer(s) will be for a specified offtake reduction energy quantity (kWhs) at an Eligible DMC and in the form specified by the DSR Framework and Methodology. Each DSR Offer(s) will relate to one individual energy quantity of reduced offtake (a

tranche); for each Eligible DMC the total energy quantity of offtake reduction of all DSR Offers shall not exceed the prevailing Supply Point nominated daily offtake quantity, as set out in the prevailing Gas Flow Nomination, submitted by the relevant Shipper, for the Eligible DMC, for the relevant gas Day.

- 9.4. A DSR Offer may be posted on to the Locational market of the OCM at any point in time up to the declaration of GDE stage 2 for the gas Day, but will only be able to be accepted during the DSR Period.

### **Section 10. DSR Offer Acceptance Arrangements Process**

- 10.1. Where a GDW has been declared National Grid NTS may accept DSR Offers on the Locational market for each Day up to the Day that the GDW is revoked, or the gas Day within which GDE Stage 1 has ended and Stage 2 is declared.
- 10.2. Following the declaration of a GDE Stage 2 National Grid NTS will not be required to accept any further DSR Offers.
- 10.3. Where Declaration of a GDE Stage 2 occurs within a gas Day all DSR Offers accepted whilst in GDE stage 1 will apply.
- 10.4. All available DSR Offers will be displayed in a price order consistent with all other OCM markets.
- 10.5. National Grid NTS will accept lowest priced offers first in stack order, making an assessment across the OCM Title, Physical, Locational Markets.
- 10.6. Where National Grid NTS accepts a DSR Offer the Shipper will be notified through existing OCM notification processes.

### **Section 11. Exercising The Accepted DSR Offers Process**

#### **11.1. Daily Product**

Where National Grid NTS accepts the DSR Offer;

- 11.1.1. The relevant Shipper will notify the relevant End User of the requirement to reduce their gas offtake for the gas Day by the energy quantity specified; at the specified site, within the timescales, and arrangements prescribed in the relevant DSR Offer Notice.

11.1.2. As with all Locational Market Offers accepted on the OCM, the Shipper will notify National Grid NTS of the intent to reduce offtake at the Eligible DMC by submitting a re-nomination at the Eligible DMC Supply Meter Point, as prescribe in UNC Section D2.3 – Contract Re-nominations.

## **Section 12. Treatment of Accepted Offers When Entering into a GDE Stage 2**

12.1. Where National Grid NTS has already accepted a DSR Offer for a gas Day on which National Grid NTS subsequently declares a GDE Stage 2 the accepted DSR Offer will be exercised for each Day following the Day the offer was accepted until countermanding instructions are issued by National Grid NTS i.e. instruction from National Grid NTS during the restoration stage of the GDE.

## **Section 13. Payment Arrangements**

13.1. In respect of the Day, or Multiday, that the DSR Offer contract duration was accepted for, payment will be made in accordance with the accepted DSR Offer price,

13.2. For subsequent Days during GDE stage 2; payment at 30 day average SAP for the accepted DSR energy quantity will made up to the point that the relevant site has been instructed to Firm Load Shedding (FLS), by National Grid NTS or such other relevant Transporter.

13.3. In the event that the accepted Multiday Offer contract duration runs beyond FLS; the payment will continue to be paid in accordance with the agreed DSR Offer price until the contract duration is extinguished.

13.4. Where the Eligible DMC is FLS the prevailing DSR payment arrangements will apply in accordance with the Ofgem Gas Significant Code Review (SCR) on Security of Supply (SoS) UNC provisions<sup>6</sup>, in which UNC section Q 6.4 - 'DSR Payments' prescribes a DSR payment, for each Day of curtailment, of 30 Day Average SAP (price set from the Day prior to entering Stage 2) multiplied by the energy quantity that was FLS.

13.5. As the DSR is exercised through an OCM trade, once the DSR service has been exercised, the relevant End User will be entitled to receive the relevant DSR payment until the end of the contracted duration on which the DSR Offer was accepted,

---

<sup>6</sup> UNC text to be implemented September 2015 In accordance with the Authority's direction on Gas SCR <http://www.gasgovernance.co.uk/sites/default/files/gasscrs36cdirectiondraft.pdf>

irrespective of any countermand instruction from National Grid NTS that the GDW for the relevant gas Day has been repealed.

#### **Section 14. DSR Settlement Arrangements**

- 14.1. For the purposes of payment and settlement arrangements all accepted DSR Offers will be regarded as Market Balancing Actions (MBA) taken by National Grid NTS. These payments will be settled with the relevant Shipper.
- 14.2. The Shipper will be required to pass agreed payments associated with the DSR Offer to the relevant End User within their agreed settlement timescales.
- 14.3. Where National Grid NTS accepts a DSR Offer on a Day for which it later declares a GDE Stage 2; the offer acceptance shall continue to be exercised throughout GDE Stage 2 and higher emergency stages. Payments associated with accepted DSR offer energy quantities will be settled as follows:
  - a For each relevant Day after the declaration of GDE stage 2, all settlement of DSR Offer energy quantities accepted prior to the declaration of entry into GDE stage 2, will NOT be executed within the settlement timescales prescribed for Market Balancing Action settlement arrangements. These DSR Offer payments will be settled in accordance with the Gas SCR SoS UNC provisions<sup>7</sup>, UNC section Q 6.4.7 - 'DSR Payments', and will be settled within the same timescales and under the funding arrangements provided for DSR Payments relating to Involuntary DSR through FLS.
  - b Accepted DSR Offers will receive DSR Payment, at the offer price multiplied by the energy quantity accepted in the DSR Mechanism, for each Day the site is curtailed, up to the day on which the site is subject to FLS. A FLS site will receive DSR Payments, for the total energy quantity of the accepted Offer (including both voluntary and involuntary DSR) in accordance with the DSR settlement arrangements prescribed in UNC section Q 6.4.7 – 'DSR Payments' (SCR SoS provisions to be introduced in September 2015).

---

<sup>7</sup> UNC text to be implemented September 2015 In accordance with the Authority's direction on Gas SCR <http://www.gasgovernance.co.uk/sites/default/files/gasscrs36cdirectiondraft.pdf>

- 14.4. Supplier Licence Condition 19D of the Gas Supply Licence and Shipper Licence Condition 15A of the Gas Shipper Licence set out the obligation for passing on Involuntary DSR payments to End Users as soon as reasonably practicable.

#### **Section 15. Liability Arrangements**

- 15.1. When submitting the DSR Offer onto the OCM Platform – Locational market the Shipper warrants that the DSR Offer accurately reflects the details agreed in the relevant DSR Offer Notice. The Shipper will be solely responsible and liable for any error or omission in the DSR Offer, when registering onto the Locational market; these liabilities will manifest themselves as clearing (cash-out) costs, Physical Re-nomination Incentive (PRI) charges and Scheduling charges.
- 15.2. Where the amount of gas offtaken for a relevant gas Day at the relevant Eligible DMC is not less than or equal to the re-nomination submitted by the Shipper, in response to the acceptance of a DSR Offer, then the Shipper is potentially exposed to clearing costs, and the End User has therefore not met its trade requirements. The End User and the registered Shipper should consider liability arrangements associated with the Shipper's exposure to such clearing costs.

#### **Section 16. The UNC Provisions**

In respect of the DSR Framework and Methodology the UNC will include the following provisions:

- 16.1. Prior to posting a DSR Offer onto the OCM the registered Shipper will have a record of the agreement, with the relevant End User of the relevant site, that the Shipper may post the DSR Offer(s) on behalf of the relevant End User.
- 16.2. An accepted DSR Offer will be processed and settled in accordance with Locational Market Transaction arrangements.



# Appendix 4

## Volumetrics and DSR Survey analysis results

---

### Background

During initial Industry discussions on the development of a Demand Side Response Mechanism, there was a common desire to understand and gain further details on the potential size of the DSR market. In order to address this request, National Grid carried out a piece of analysis to assess the potential DSR energy quantity that could be made available by Gas Consumers through DSR.

### Assumptions

Throughout the analysis we made a number of informed assumptions to ensure that the data presented was as representative of the population of eligible sites as possible. These assumptions are outlined below;

#### Creating the scenarios

- **Supply Offtake Quantity (SOQ)** – As a starting point we gathered each eligible site's SOQ figure. This showed us the expected maximum daily consumption of gas at all eligible sites.
- From the historical data gathered during the analysis we could see that it is very rare for a site to actually utilise their maximum daily gas consumption (SOQ). Therefore to get a more representative starting point of what an 'average' site's gas consumption could be expected to be on any one day we created a base scenario.
  - To create the base scenario we looked at the gas consumption on seven high winter demand days during the last three years, these seven days included the peak gas demand day over this period, which was seen on 23rd January 2013.
  - We then compared each site's consumption on these seven days with their SOQ figure, this enabled us to see an average percentage utilisation of SOQ figures across all of the potentially eligible sites.
  - The assessed 'average' maximum percentage utilisation of SOQ was 60%.
  - As a result of this analysis we decided to use 60% of each site's SOQ figure as our base scenario.
  - We then used the base scenario as a starting point for the four additional scenarios which were;
    - 50% of the Base scenario
    - 20% of the Base scenario
    - 10% of the Base scenario
    - 5% of the Base scenario
  - These scenarios enabled us to demonstrate a potential range of DSR energy quantity availability across a series of circumstances.

- Sites which we were aware offtake gas primarily for use in Gas fired generation were omitted from the analysis due to already having an established route to market.

### Participation

- The scenarios assume that all Gas Consumers who are able to participate (DM sites >2 million therms per annum) would be willing to participate.
- The scenarios also assume that everyone would participate on an equal basis e.g. all sites would be willing to offer the same amount of their gas demand (50%, 20%, 10% or 5%).

### Analysis Results

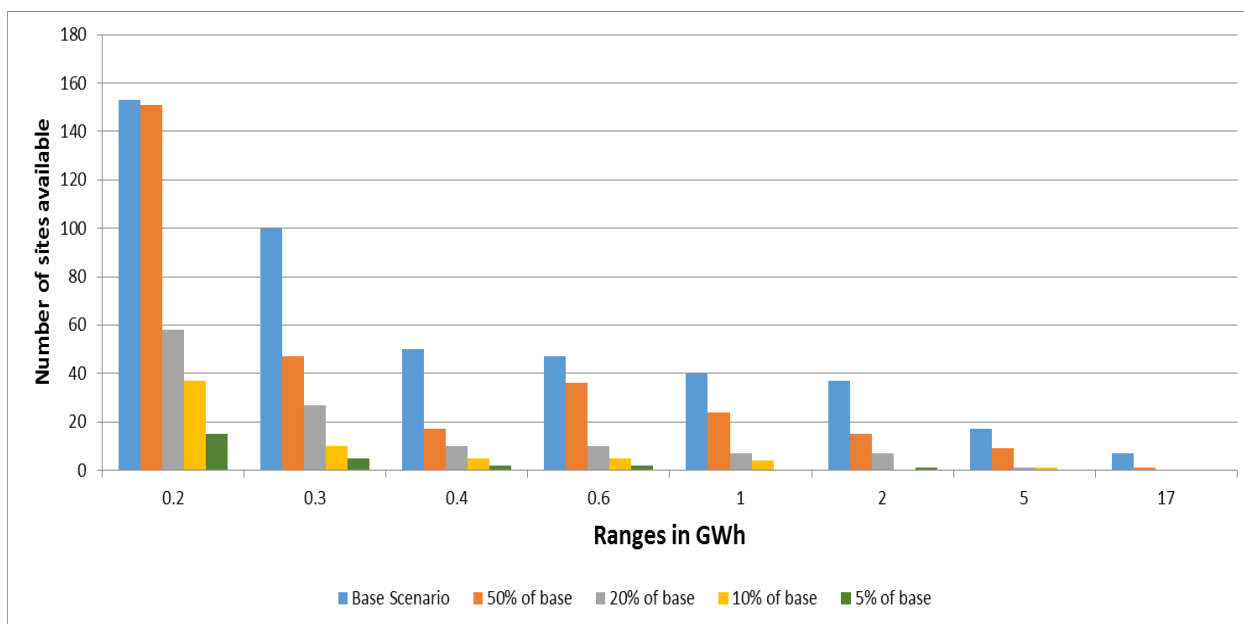
The table below shows the estimated energy quantity availability in GWh/day, and the number of sites that would be eligible to participate in the DSR mechanism; based on the base scenario and the ‘four percentage of base’ scenarios.

Scenarios	Estimated Volume Available (GWh)	Number of sites
Base Scenario - 60% of SOQ figures	291	451
50% of base scenario	134	300
20% of base scenario	41	120
10% of base scenario	17	62
5% of base scenario	6	25

The table above shows that based on the design of the agreed DSR Product there is an estimated 291 GWh/day of gas and up to 451 sites that could participate in the DSR mechanism. The number of sites which could participate in each scenario is dependent upon them still being able to offer at least the minimum trade energy quantity on the OCM (100,000 kWh). Therefore, it can be seen that as the scenarios half in size, e.g. from 20% to 10% the energy quantity and number of sites which are able to participate doesn't simply half alongside this, as some of the sites will have fallen below the minimum OCM trade quantity of 100,000 kWh and therefore excluded from the analysis.

The graph below shows the potential DSR availability in terms of the number of sites which can participate. We created eight energy quantity ranges to show the number of sites

which are able to participate in each range based on the 5 scenarios previously described.



Within the above chart, each coloured column represents one of the five scenarios. The lighter blue column shows the results of the Base Scenario, each column represents the number of sites within that scenario which would be able to offer an energy quantity within the range outlined on the x axis e.g. the first blue column shows that within the Base Scenario the analysis suggests that approximately 150 sites would be able to offer an energy quantity of DSR between 0.1 and 0.2 GWh. In contrast in the 10% of Base Scenario, which is depicted in the yellow columns, there is only 1 site which is able to offer an energy quantity of DSR within the range of 2 – 5 GWh

## The DSR Survey Results

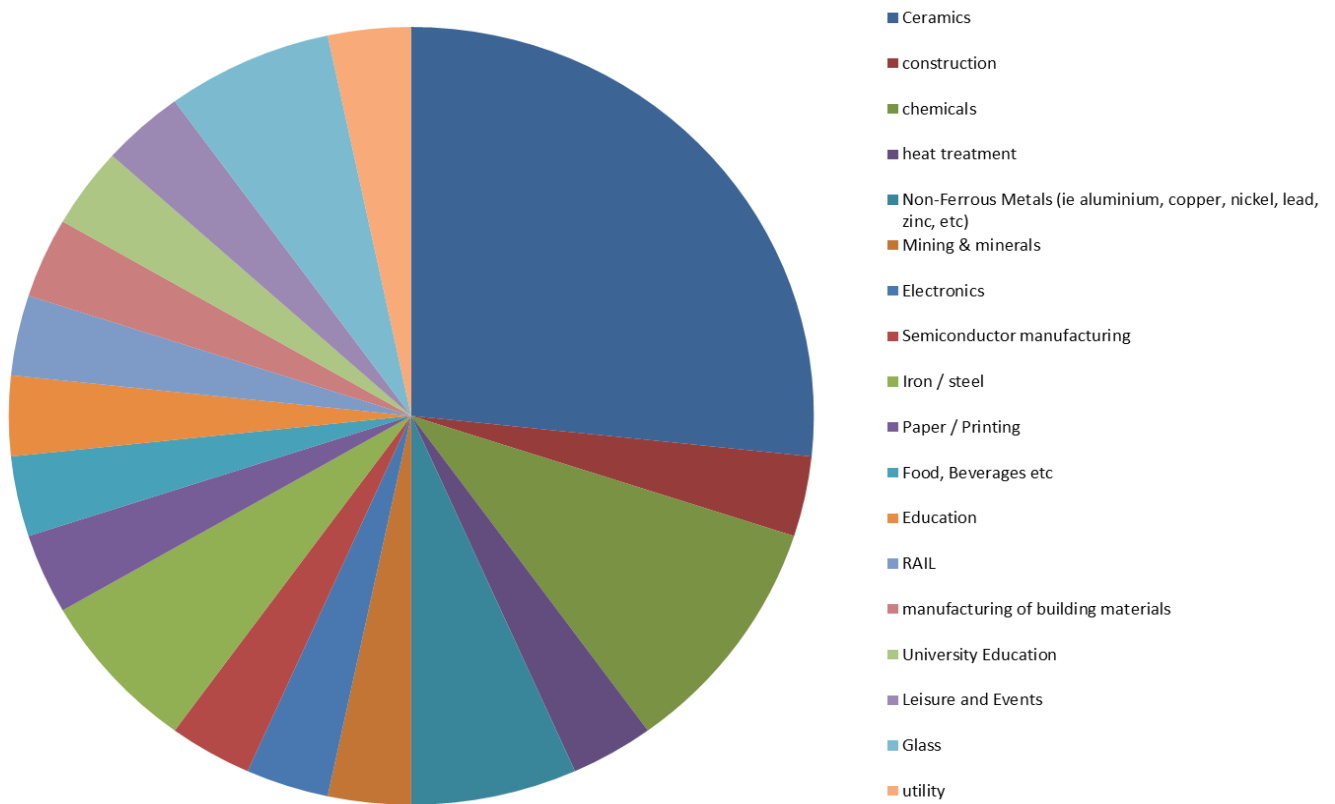
Following the completion of the analysis, and agreement on the proposed DSR Product design as outlined within the DSR Framework and Methodology, the workgroup recognised that it would be appropriate to gather wider views from Gas Consumers on the proposed product design, to understand if they would be interested in participating in the DSR mechanism. In order to gather these wider views the workgroup agreed the content of a stakeholder survey. This survey asked a number of key questions including:

- In the event that the gas market was under stress and wholesale prices were rising significantly, would you voluntarily reduce your demand?
- Approximately what is your average daily gas demand?
- Approximately what proportion of your load would you be willing to offer in DSR?

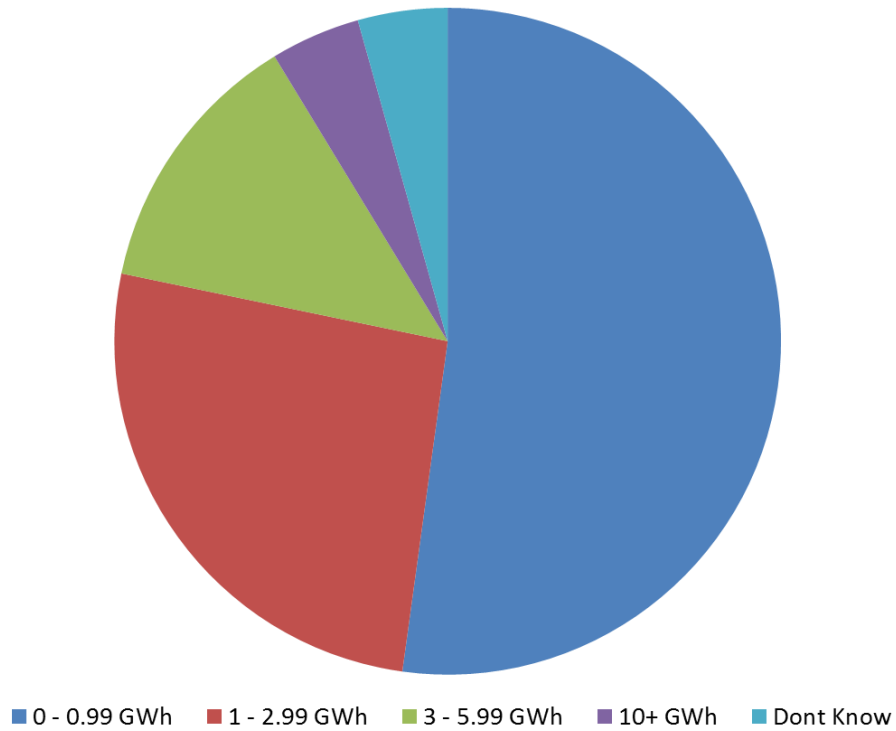
- Would you be interested in participating in a DSR mechanism if this helped to protect your critical loads and you received compensation for doing so?
- National Grid intends to run an 'Expression of Interest' trial of the potential DSR mechanism following the industry development process and before launching the final product. Would you be willing to participate in this simple paper based trial exercise?

The information presented below was gathered from the responses received from the DSR stakeholder Survey. The DSR Survey was sent out by both National Grid and the Joint Office on various industry distribution lists capturing a wide Gas Consumer audience. The diverse audience targeted enabled us to get responses from a wide range of sectors as can be seen in the pie chart below.

What sector are you in?

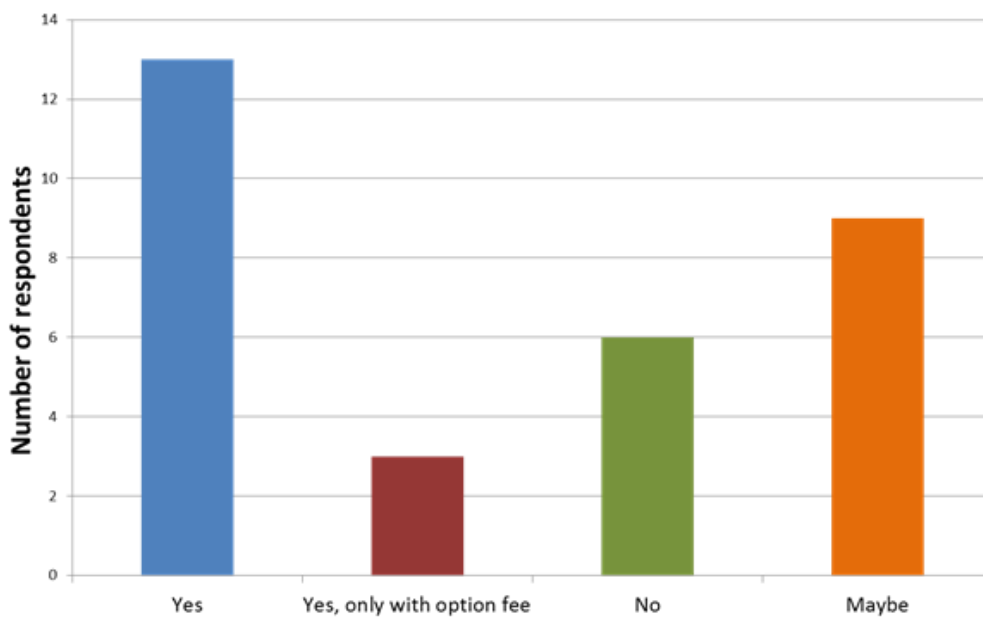


What is your average daily gas demand?



As can be seen from the pie chart above, over half of the respondents fell within the smallest applicable daily gas demand category of 0 - 0.99 GWh/day and only one respondent fell within the largest applicable daily gas demand category of over 10 GWh/day.

Would you be interested in participating in a DSR mechanism?

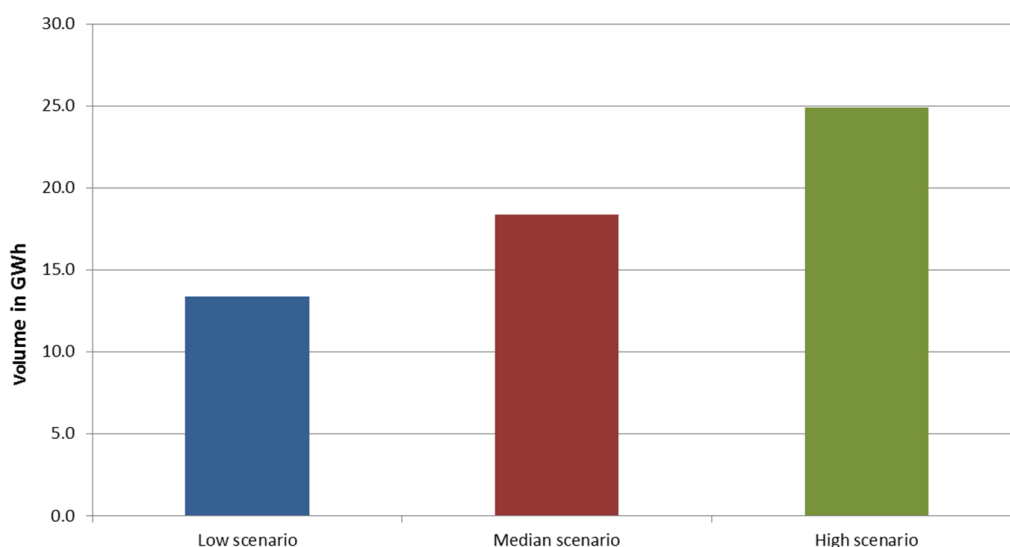


In total National Grid received 31 responses to the DSR Survey of which 25 respondents gave favourable responses of either yes or maybe.

The graph below excludes the respondents who answered 'No' to participating in the DSR mechanism. This is to ensure that the analysis shows an accurate picture with regards to the potential energy quantity which DSR Offers may be made available for. Therefore the following graph is based on the 25 'favourable' responses.

The responses to two questions within the survey, 'Approximately what is your average daily gas demand' and 'Approximately what proportion of your load would you be willing to offer in DSR' together with further information gathered from discussions with the respondents who left their contact details, enabled National Grid to generate three further energy quantity scenarios. These scenarios enabled us to present an alternative range depiction of how much energy quantity could be offered from the 25 respondents, who answered 'favourably' to participate in a DSR mechanism.

### Three scenarios to show the potential volume availability from the 25 favourable responses



As can be seen from the bar chart above the 25 respondents who answered 'favourably' to the DSR Survey could potentially offer an energy quantity of gas 'turn down' in the range of 14 – 25 GWh.

- The low scenario represents each respondent offering the minimum of the range outlined in their response to the survey, in terms of volume and proportion of load, they would be willing to offer;

- The high scenario represents each respondent offering the maximum of the range outlined in their response to the survey, in terms of volume and proportion of load, they would be willing to offer;
- The median scenario represents each respondent offering the median of the range outlined in their response to the survey, in terms of volume and proportion of load, they would be willing to offer.

## Summary of the analysis

The volume of responses received to the DSR Survey represents approximately 7% of the sites that would be eligible to participate in the DSR mechanism. Of the 31 responses received 25 indicated a 'favourable' response answering either 'yes' or 'maybe' to participating in the DSR mechanism, which is approximately an 80% favourable response rate from this population of Gas Consumers. Although these responses only represent a small proportion of the eligible sites it does provide an indication of the potential for participation in the DSR mechanism.

Overall, although both the analysis results and the DSR Stakeholder Survey results do rely on a number of broad assumptions they do provide an indication to the potential number of sites that are eligible and potentially willing to participate in the DSR mechanism and also the potential gas DSR energy quantity that could be made available through the mechanism.

## Appendix 5 Network Gas Supply Emergency Classification

Please see the table below for a high level overview of the Network Gas Supply Emergency Classification. Further detailed information relating to the occurrence of a gas supply emergency can be found within the Uniform Network Code – Transportation Principle Document – Section Q.3.

Network Gas Supply Emergency Classification			
	Gas Deficit: Insufficient Gas Supplies Available to the NTS		Critical Transportation Constraint in the NTS
Emergency Stage	Gas Deficit Emergency	Safety Monitor Breach	Critical Transportation Constraint
1 (Potential)	<ul style="list-style-type: none"> <li>Emergency Spec Gas</li> <li>NTS Linepack</li> <li>Distribution Network Utilisation                             <ul style="list-style-type: none"> <li>Distribution Network Storage</li> <li>Emergency Interruption</li> </ul> </li> <li>Public Appeals</li> </ul>	<ul style="list-style-type: none"> <li>Instruct shippers &amp; storage operators to amend storage flows</li> <li>Distribution Network Utilisation                             <ul style="list-style-type: none"> <li>Emergency Interruption</li> </ul> </li> <li>Public Appeals</li> </ul>	<ul style="list-style-type: none"> <li>Emergency Spec Gas</li> <li>NTS Linepack</li> <li>Distribution Network Utilisation                             <ul style="list-style-type: none"> <li>Distribution Network Storage</li> <li>Emergency Interruption</li> </ul> </li> <li>Public Appeals</li> </ul>
2	<ul style="list-style-type: none"> <li>National Grid Gas plc's participation in the OCM will be suspended</li> <li>Maximise Supplies</li> <li>Firm Load Shedding</li> <li>Public Appeals</li> </ul>	<ul style="list-style-type: none"> <li>National Grid Gas plc's participation in the OCM will be suspended</li> <li>Maximise Supplies</li> <li>Firm Load Shedding</li> <li>Public Appeals</li> </ul>	<ul style="list-style-type: none"> <li>National Grid Gas plc will continue to participate in OCM</li> <li>Maximise Storage</li> <li>Firm Load Shedding                             <ul style="list-style-type: none"> <li>Public Appeals</li> </ul> </li> </ul>
3	<ul style="list-style-type: none"> <li>Public Appeals</li> <li>Allocation &amp; Isolation</li> </ul>	<ul style="list-style-type: none"> <li>Public Appeals</li> <li>Allocation &amp; Isolation</li> </ul>	<ul style="list-style-type: none"> <li>Public Appeals</li> <li>Allocation &amp; Isolation</li> </ul>
4	<ul style="list-style-type: none"> <li>Restoration</li> </ul>		



## Appendix 6

# Shipper / Supplier & Gas Consumer DSR Service Agreement – Items for consideration

---

The purpose of this paper is to provide some suggested points for gas Shippers/Suppliers and Gas Consumers to consider when developing a DSR service agreement. The content detailed below is intended to provide guidance on what might be expected to be included within such an agreement. However this guidance is not intended to be either prescriptive or exhaustive.

**The words in “Bold” below are defined within the DSR Methodology and therefore their use within any service agreement would simplify alignment between the agreement and the Methodology.**

- 1.1. The DSR service agreement may contain the contractual arrangements for the Shipper/Supplier & Gas Consumer:

For the reduction in gas quantity offtaken at a relevant Site (**Eligible DMC**) – Shipper/Supplier to Gas Consumers contractual arrangement. In exchange for the payment of a service fee the Shipper (following instruction by the relevant Gas Consumer, and in some cases directed through the relevant Supplier) will agree to post a **DSR Offer**, on behalf of the Gas Consumer, to reduce offtake from the gas network. In return the Gas Consumer commits to delivering on the agreed offtake reduction if called on to do so by the relevant Shipper/Supplier. These arrangements will be undertaken within the terms provided in the **DSR Methodology**, and secured upon the **DSR Offer** being accepted on the ‘On the day Commodity Market’ (OCM).

- 1.2. The Gas Consumer (in some cases through its Supplier) will work together with their Shipper to enable the Shipper to post the relevant **DSR Offer(s)** onto the OCM. **DSR Offers** may be placed, updated or withdrawn, on the OCM at any time up to the declaration of a Gas Deficit Emergency (GDE) Stage 2 as defined within the UNC section Q3.2 – ‘Gas Deficit Emergency’.
- 1.3. Any DSR service agreement should be consistent with the provisions set out in the **DSR Methodology**, relevant Uniform Network Code (UNC) provisions and the OCM Market Rules.

1.4. **The DSR service agreement – Points for Consideration**

1.4.1. Prior to participating in the **DSR Mechanism** on behalf of the **Eligible DMC**, the relevant Shipper and Gas Consumer (in some cases through the Supplier) may consider entering into a **DSR service agreement** which may set out standardised Heads of Terms which define;

- a. Arrangements for the Registered User (Shipper) to post **DSR Offers** on behalf of the Gas Consumer, for the **Eligible DMC** onto the OCM;
- b. Information provision, communication arrangements and timings of communications;
- c. Commercial / financial settlement arrangements;
- d. Liabilities for non-compliance arrangements;
- e. The nature of the **DSR Service** being provided;
- f. Details of the Shipper's Service fees;
- g. Details of Liabilities; and
- h. **DSR Offer Notice** arrangements.

1.5. **DSR Offer Notice**

1.5.1. In respect of each specific **DSR Offer**, the relevant Shipper and relevant Gas Consumer (in some cases through the Supplier) may prepare and agree a **DSR Offer Notice** which will specify:

- a. Price p/kWh;
- b. Volume (kWh);
- c. Required lead time between **DSR Offer** acceptance by National Grid and commencement of the offtake rate reduction at the **Eligible DMC** (which will include any Shipper to Gas Consumers notification time period);
- d. Timing of **DSR Offer** availability within the relevant gas Day (i.e. Evergreen, reducing volume or only during a specified period ;
- e. Location (UNC Supply Point ref number);
- f. Gas Consumer contact details;
- g. For '**multiday**' **DSR Offer**, specify the number of gas Days included in the Offer;
- h. 7 day Profiling of **Daily Offer** volume and/or price details e.g. week / weekend profile to account for reduction in demand at weekends;
- i. Indicate whether the 7 day profile of daily offers should be continuously reposted automatically.

1.5.2. This information may be used by the Registered User (Shipper) at an **Eligible DMC** to place the **DSR Offer(s)** onto the OCM.

1.6. Where a **DSR Offer** is accepted by National Grid on the OCM;

1.6.1. The Shipper will notify the Gas Consumer (in some cases through the Supplier) of the requirement to reduce their notified End of Day (EOD) gas offtake by an amount at least equal to the accepted **DSR Offer**.

### Demand Side Response - Example of DSR service agreement – Heads of Terms

Detailed below are points to consider when developing a DSR Service agreement. It should be noted that the list is not intended to be prescriptive and is not exhaustive.

a.	The DSR Service	Description of the DSR Service agreed
		Responsibilities
b.	DSR Offer Notice Arrangements	Preparing each DSR Offer Notice (for each tranche) – specify volume, duration , product type (e.g. daily/multi-day)
		Offer Price – (Value of Lost Load (VoLL) price + Gas price + Admin fee)
		Exercise Lead-times
c.	Operational Arrangements	Communication and Response Timescales
		Submitting/Amending/Revising DSR Offers
		Site Maintenance Notification
		Notification of accepted DSR Offer and response to exercise
		Contact information etc.
d.	Liabilities	Failing to reduce Offtake
		Errors submitting DSR Offers
e.	Payment and settlement Arrangements	Payment timings

## Appendix 7

### DSR End to End Process

---

**The DSR mechanism features two principle contractual arrangements:**

**Part One – For delivery of the physical action by the Gas Consumer to reduce the gas quantity offtaken, at a relevant Site, associated to the DSR Offer** – this is the Shipper/Supplier to Gas Consumer contractual arrangement. On behalf of the Gas Consumer (in some cases through instruction by the Supplier) the Shipper will agree to place an offer onto the DSR mechanism, which reflects the agreed DSR volume and price for the Gas Consumer’s reduction in offtake of. In return the Gas Consumer commits to honouring and delivering on the agreed offtake reduction if called on to do so by the relevant Shipper. *Requirements for this aspect of the DSR mechanism may be defined by the Shipper, Supplier or Gas Consumer through their contractual (gas supply contract) arrangements; and*

**Part Two - For the procurement of the gas which would otherwise have been offtaken by the Gas Consumer which is now associated with the DSR Offer** – this is the Shipper to National Grid contractual arrangement. Under prescribed parameters and criteria, the Shipper will offer to sell “title” to gas (associated to the DSR Offer) to National Grid in its Role as the Residual Balancer. *The requirements and provisions for this aspect of the DSR mechanism will be set out within the DSR Methodology and the Uniform Network Code (UNC).*

#### **Determining what amount of DSR to Offer**

To be eligible to participate in the DSR Mechanism the Gas Consumer’s site must consume enough gas per year to be classified as a Daily Metered Component ‘DMC’ customer. A ‘DMC’ customer is a Gas Consumer with a site (supply point), which has a yearly demand of greater than two million therms (2M tpa). Eligible sites also have to be able to offer a DSR Offer quantity of 100,000 kWhs/day in any one DSR Offer Notice (e.g. tranche of DSR volume).

The first step for an eligible Gas Consumer who wishes to participate in the DSR mechanism, is to decide what level of Demand Side Response energy quantity they are prepared to make available and at what price (depending on how the Gas Consumer values the cost associated with the reduction of specific quantities of their gas supply). Eligible sites are permitted to make multiple separate DSR Offers which can be priced individually (tranches); all DSR Offers must meet the minimum trade volume criteria.

The details, criteria and arrangements associated with the DSR energy quantity to be offered may be set-out and be discussed with the site's registered Shipper (in some cases through instructions with the relevant Supplier).

### **Posting a DSR Offer**

Where the Shipper, (Supplier) and Gas Consumer agree that the Shipper will post the DSR Offer(s) on behalf of the Gas Consumer; the Shipper will place the agreed DSR values in the form of a DSR Offer(s) onto the DSR mechanism. The DSR mechanism will be facilitated through the 'On the day Commodity Market' (OCM) - Locational Market. As a Network Code Signatory the site's registered Shipper is the only party permitted to enter a DSR Offer(s) onto the DSR mechanism on behalf of the relevant Gas Consumer associated with that specific site. In accordance with arrangements agreed with the Gas Consumer, the Shipper may post update or withdraw DSR Offer(s), at any time up to the declaration of a Gas Deficit Emergency (GDE) Stage 2.

### **Accepting the DSR Offer**

DSR Offers may only be accepted by National Grid, where a Gas Deficit Warning (GDW) has been declared, and is in effect, and only during the DSR Period (the period between GDW and the end of GDE stage 1). A DSR Offer may be posted and accepted for a single gas Day or for multiple gas Days (as a Multiday trade - this may not exceed 7 days).

In respect of determining which offers to accept National Grid will access all of the available DSR Offers, together with all other market offers, posted for the relevant gas Day, across all of the OCM platform markets (including OCM Title, Physical, and Locational) and National Grid will accept the lowest price offer available first.

Where National Grid accepts a DSR Offer for the gas Day:

- The Shipper (in some cases through the Supplier) will notify the Gas Consumer of their requirement to physically reduce their gas demand (as previously notified by their End Of Day (EOD) offtake) by an energy quantity at least equal to the accepted DSR Offer. The system balancing clearing position, for both the Shipper and National Grid, in its Residual Balancing role, will be adjusted to reflect the completed gas trade, affected through accepting the DSR Offer.
- The Shipper will revise the relevant Gas Consumer's site/sites' nomination quantity, through a Physical Re-nomination, which will reflect the title trade (for the DSR Offer) energy quantity.

Where National Grid accepts a Multiday DSR Offer it will be in accordance with existing arrangements set out in the UNC Transportation Principles Document (TPD) Section D4.

Accepted DSR Offers will be treated in a similar manner as other actions National Grid undertakes for system balancing purposes, and, as such, all accepted DSR Offer prices and energy quantities will feed into the calculation of the cash-out prices and balancing neutrality processes for the relevant gas Day.

Payments for the accepted DSR Offers will be paid to the Shipper by National Grid within the same timescales set-out for other Market Balancing Actions as detailed in Section S of the UNC TPD. The Shipper will then pay the Gas Consumer the agreed payment for the accepted DSR Offer(s).

#### **Arrangements relating to the day in which a GDE Stage 2 is declared**

Where National Grid accepts a DSR Offer for a gas Day in which a GDE Stage 2 is subsequently declared; the accepted DSR Offer will continue to be required on each following day, until revoking instructions are issued by the National Emergency Co-ordinator (NEC).

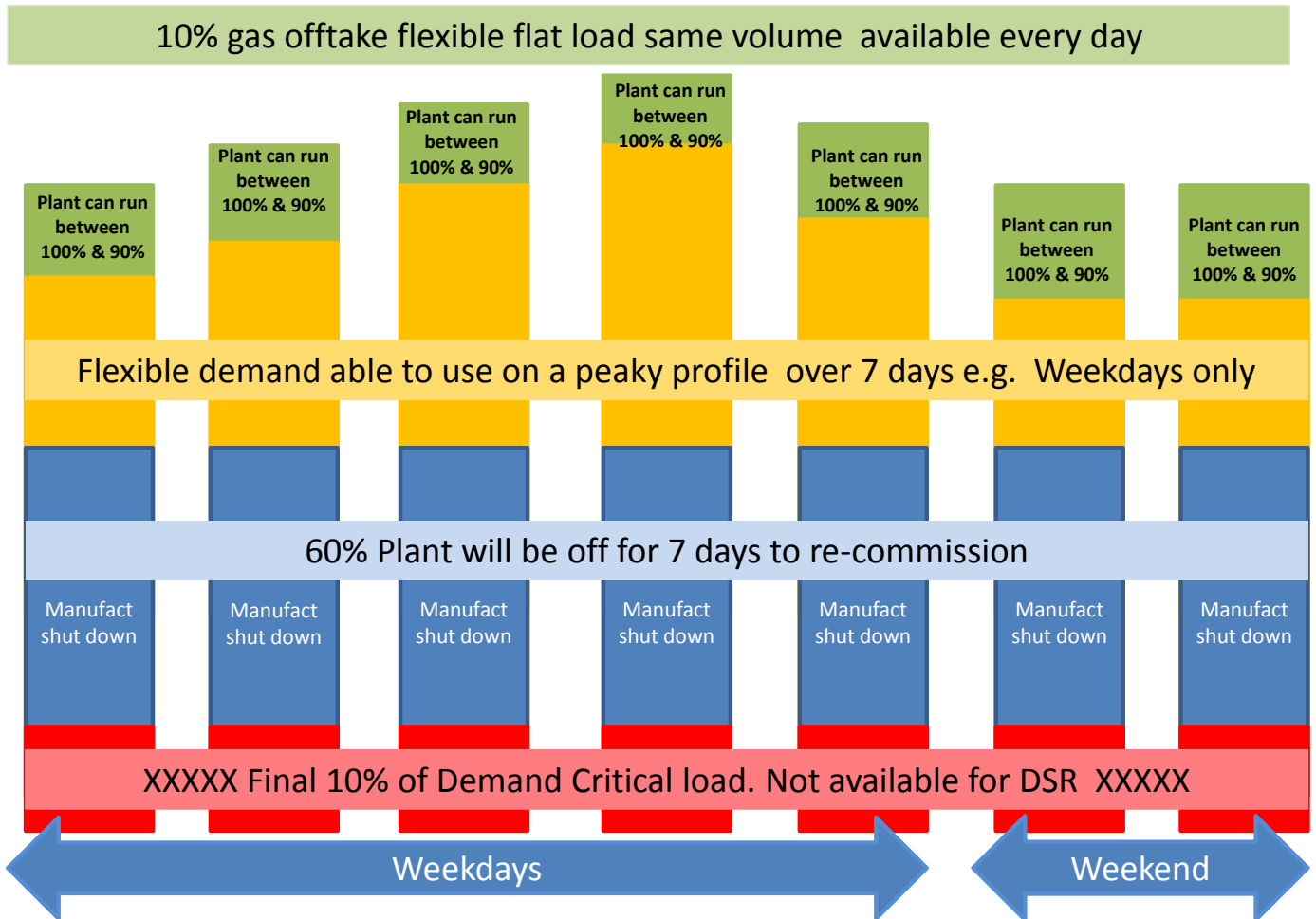
Payment for such actions will be:

- Settled for the Day, or Multiday duration, that the DSR Offer contract was accepted, payment will be made in accordance with the accepted DSR Offer price. The standard settlement period will apply as detailed in Section S of the UNC TPD i.e. end of the month in which the DSR Offer is accepted plus 23 working days.
- For subsequent Days payment will be at the 30 day average System Average Price (SAP) for the accepted DSR energy quantity, this will be made for the DSR energy quantity until the site is subject to an instruction to Firm Load Shedding (FLS) it's remaining offtake energy quantity as part of the Stage 2 emergency process.
- Where the Consumer's site is instructed to Firm Load Shed, the involuntary DSR payment arrangements as set out in the Ofgem Significant Code Review on Security of Supply Conclusions document will then apply.

In the event that an accepted Multiday Offer contract's duration runs beyond the point at which the site is subject to an instruction to Firm Load Shedding, the payment associated with the accepted DSR Offer will continue to be paid in accordance with the agreed DSR Offer price until the accepted contract's duration has concluded.

# Appendix 8 DSR Product Options for available DSR energy quantities at an Eligible site

When determining which DSR Product best meets the requirements of your site's daily and weekly offtake profile you may wish to consider the following options:

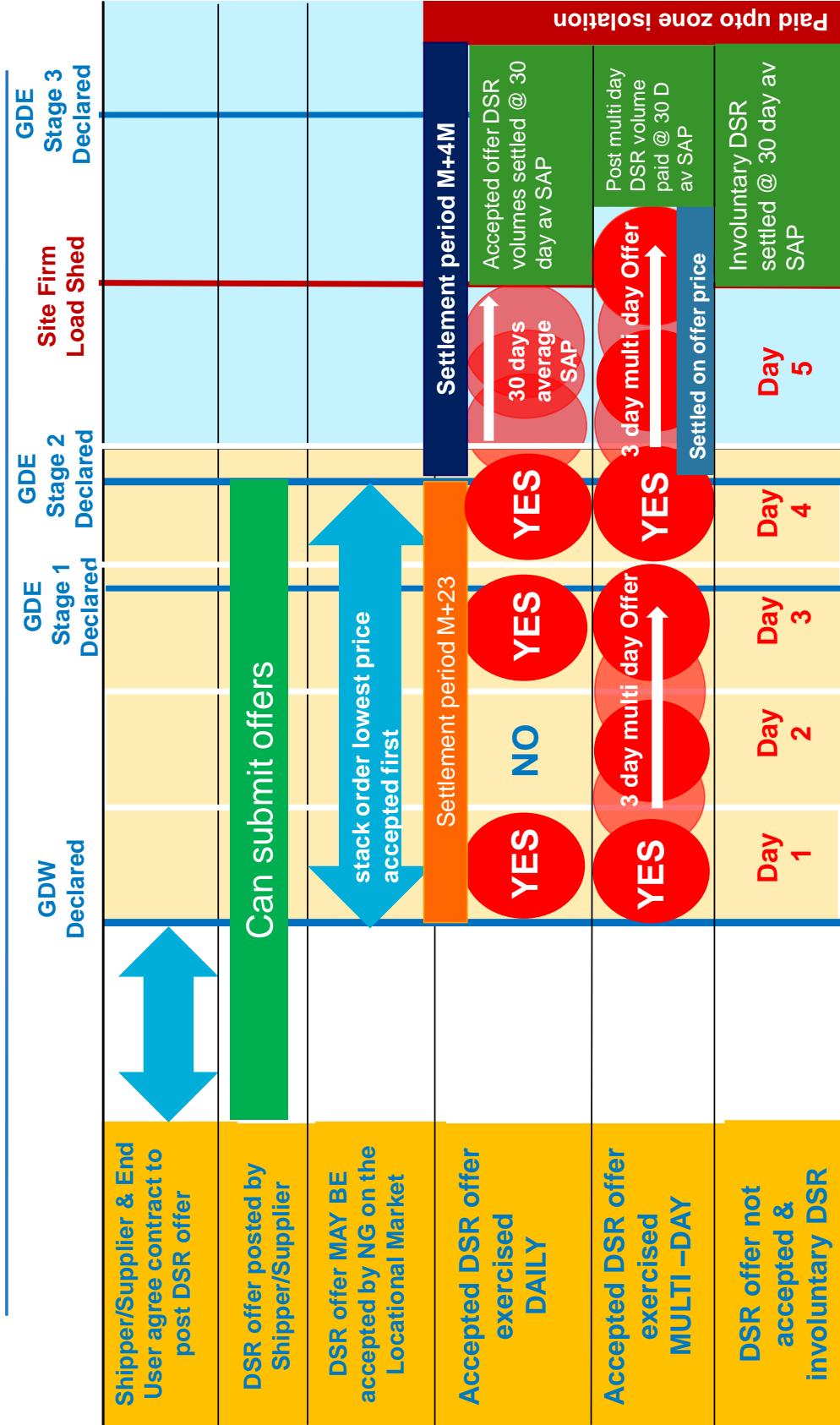


Sites Available DSR tranches for a day	Recommended DSR Product Option
<p>10% gas offtake flexible flat load With the same volume available every day</p> <p style="text-align: center;"><b>Tranche 1</b></p>	<p><b>Daily Product</b> – Flat load - posted each day for the same volume . May be posted in ‘strips’ of 7 days or posted on a daily basis. The 7 day strip is designed for ease of posting the same offer for each day, however the Offer may only be accepted for on each day exclusively and not one 7 day duration.</p>
<p>Flexible demand able to use on a peaky profile ? e.g. Weekdays only</p> <p style="text-align: center;"><b>Tranche 2</b></p>	<p><b>Daily Product</b> – Peaky load - Offer can be posted on a daily basis or posted in a 7 day ‘strip’ of offers with varying volumes offered depending on the offtake profile through the 7 days. As above these offer will be accepted for each day exclusively.</p>
<p>60% of Demand Plant will be off for 7 days to re-commission</p> <p style="text-align: center;"><b>Tranche 3</b></p>	<p><b>Multiday Product</b> - committed for posted durations. Max duration of contract 7 days (may be posted via automatic rolling offer, or posted as a one off closer to the relevant 7 day contract) Required to reduce by the same volume for each day of the contract. Will be accepted for the contracted duration .</p>
<p>Final 10% of Demand Critical load</p>	<p>No available for DSR</p>

**Both Daily and Multiday DSR Offers may be posted and automatically replicated, on a rolling 7 day strip. This may reduce the workload required to post DSR Offers.**



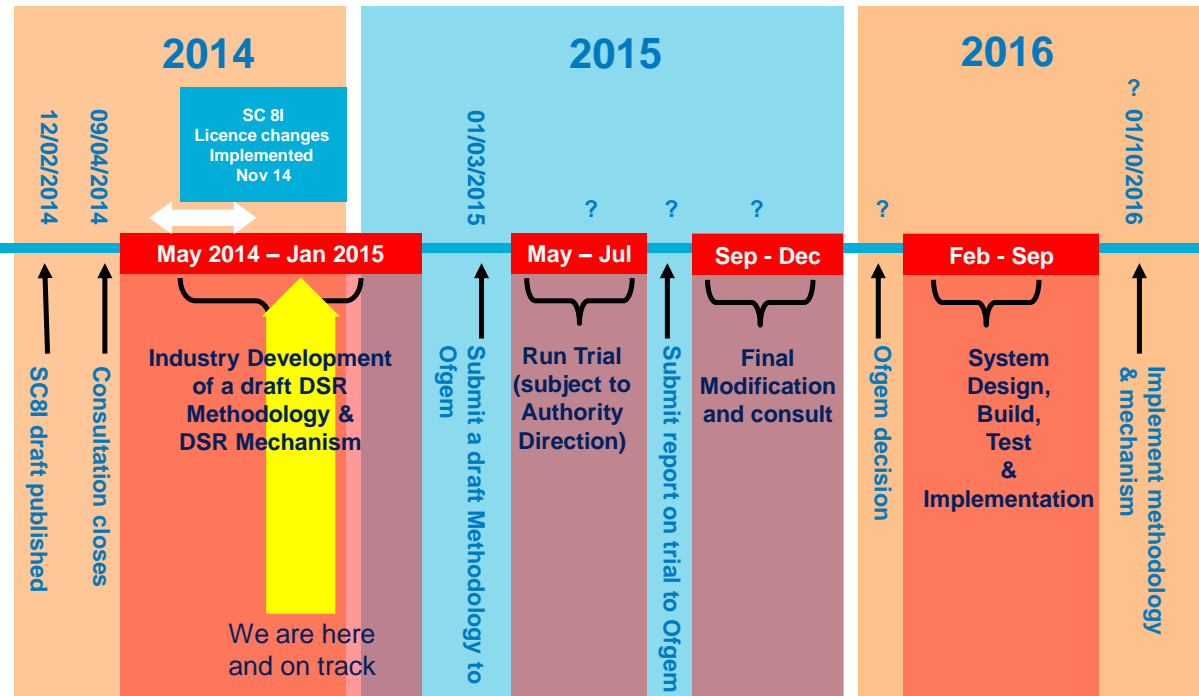
# DSR Mechanism Process Flow: Daily or Multi-day Offers



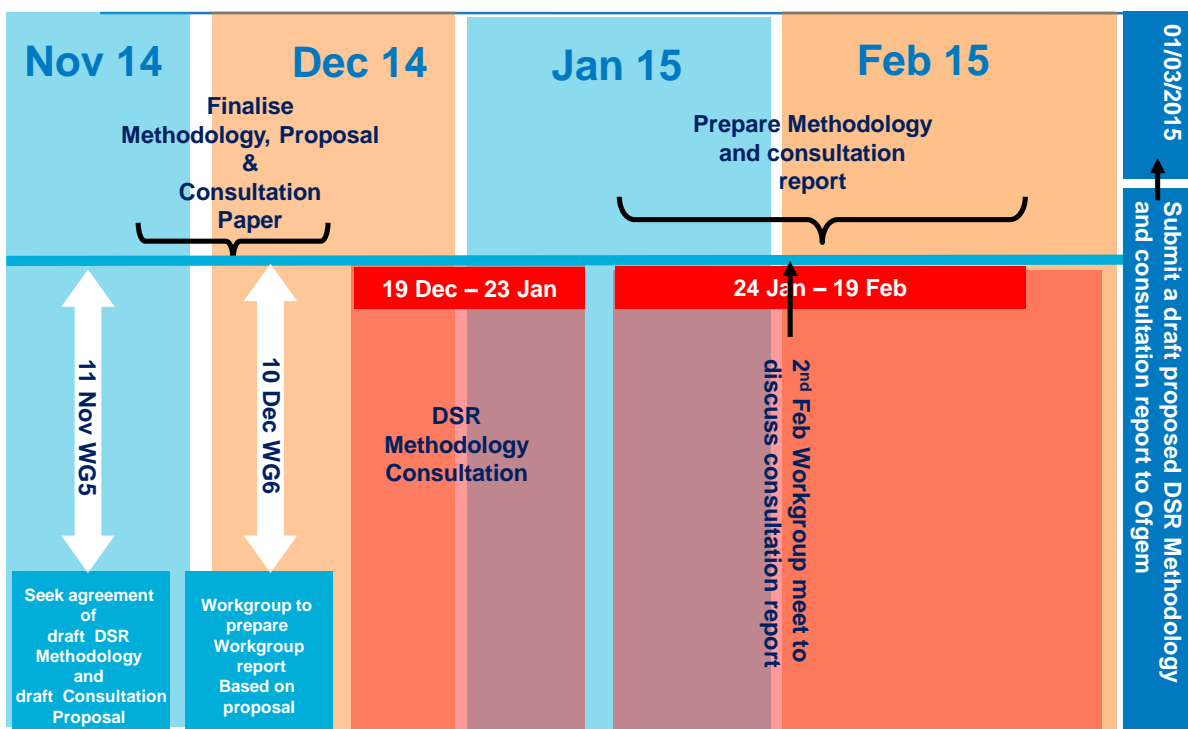
# Appendix 10

## Timescales for the development of the DSR Framework and Methodology

### DSR Methodology and Mechanism Timescales



### DSR Methodology Consultation Timescales



## Consultation Schedule

Task	Action	Delivery date
DSR Consultation	Consultation Opens	19 December 14
	Consultation Closes	23 January 15
	Initial Consultation Responses issued to Workgroup	27 January 14
Next DSR Workgroup session	To discuss consultation responses and DSR Methodology report	02 February 15
DSR Methodology Consultation Report	Submitted to Ofgem	01 March 15

January 2015

# DSR Framework and Methodology consultation – Summary of Representations

UK Gas Transmission



# DSR Framework and Methodology Consultation

## Summary of Representations

---

The table below provides a breakdown of representations received to the DSR consultation:

	Number of Reps	Respondent
<b>Number of respondents</b>	12	
<b>End Consumer Group Representative and End Consumers</b>	4	British Glass Manufacturers (BGMC), Energy Intensive User Group (EIUG), British Ceramic Confederation (BCC), Major Energy User Council (MEUC)
<b>Licenced Shipper</b>	5	E.On UK, Energy UK, Scottish and Southern Energy (SSE), British Gas Trading Ltd (BGT), RWE Supply and Trading GmbH/RWE Generation UK Plc/RWE Npower Group (RWE)
<b>Distribution Network Operator</b>	2	National Grid Distribution (NGD), Southern Gas Networks (SGN)
<b>Regulatory Body</b>	1	HSE

## Key Areas Raised

### The DSR Framework and Methodology

The consensus of responses to the consultation was that the proposed DSR Framework and Methodology delivers a methodology that meets the criteria set out in the Licence provision SC8I. The respondents were broadly satisfied that the DSR Framework and Methodology would introduce a platform upon which additional voluntary DSR could be offered to help the system at times of significant system supply and demand stress. It was however, recognised that further work was now required to develop the service agreements between the Shipper/Supplier and End Consumer.

### Shipper/Supplier and End Consumer DSR service agreement

Concerns over uncertainties relating to the content of Shipper/End Consumer service agreement featured throughout most responses to the consultation. The common concerns expressed across responses were:

- Whilst respondents agreed that any Shipper/Supplier to customer service agreement should not be included within the DSR Framework or Methodology, they felt that further clarity and definition of the Shipper/Supplier and End Consumer Service agreement content was required. Such additional clarity included:
  - Liabilities associated with:
    - the failure to respond to exercising DSR instructions and any consequential imbalance implications; and
    - the reliability and timeliness of Shippers/Suppliers updating/removing DSR Offers.
- The balance between product flexibility and resource management in times of system stress.
- Contractual complexities and uncertainties which may impact the appetite to participate.

Critically End Consumers stated that the quantification of risk and liability in respect of the whole DSR process was really important when reviewing whether consumers will decide to participate in the proposed DSR arrangements.

### Flexibility in Managing the DSR Offer

Respondents generally felt that the DSR product provided sufficient flexibility for End Consumers to manage how, and when, they are called off in a manner that may best meet their operational requirements. Shippers expressed some concern that although they recognised the benefits of introducing a flexible DSR product, the level of flexibility may also introduce resourcing risks associated with managing DSR Offers during time of system stress. One respondent did not support

the proposal of keeping DSR Offers 'Unfrozen' (i.e. DSR Offers maybe updated/withdrawn throughout the DSR period), as they believed that this may introduce an increased requirement for Shipper to customer interaction that potentially would divert Shippers' operational resources at times when they are most strained. Other respondents suggested that these Shipper operational risks may be mitigated through service agreement provisions, which seek to manage the frequency of updating DSR Offer details during the DSR Period.

One respondent suggested that it may be helpful if the DSR Framework and Methodology included a reference of how End Consumers and Shipper/Suppliers communicate when posting and revising DSR Offer bids.

### **Use of Locational Market for DSR**

The majority of respondents expressed the view that they were satisfied that the Locational market provided an appropriate platform to facilitate the DSR product. During the workgroup sessions respondents expressed concerns over confidentiality in respect of the DSR Offers becoming visible on the Locational Market, once a Gas Deficit Warning had been issued. They were concerned that the site name, or site location, may become visible to other industry parties active in the Locational Market. As part of a Workgroup presentation National Grid provided assurance that only the site's unique UKLINK number would be visible and would not contain any details of the site's location. Additionally National Grid confirmed that only OCM Market participants that have access to the OCM markets would have visibility of DSR Offers and that this would only be after a Gas Deficit Warning was called.

A concern was raised that 'unfreezing' the DSR Offer posts, during the DSR period, may potentially allow End Consumers and Shippers to change DSR Offers based on changing market dynamics instead of being solely related to the individual customer's Value of Lost Load (VOLL). It was suggested that this may not be in the spirit of the DSR Proposal and could lead to greater gas Shipper cash out exposure.

### **Aggregation of DSR Offers at smaller Supply Meter Points**

A respondent commented that the minimum volume requirement of a DSR Offer was too high and ruled out a large number of gas-intensive, industrial sites that might otherwise be willing to offer DSR. The respondent was keen to see the widening of scope of the DSR developments to encompass the aggregation of smaller sites (which individually are each below the threshold) as they believed that this may increase participation levels, thereby increasing the volume of DSR offered. During Workgroup meetings the issue of aggregation services was discussed. The consensus of attendees was that facilitating the participation of aggregated sites that would individually otherwise fall below the DSR Offer eligibility threshold, would introduce a level of complexity that was unlikely to provide sufficient benefit in respect of providing any notable, and timely, volumes of physical response. The Workgroup agreed that at this stage, particularly in the absence of smart meter technology, it would not be efficient or economic to

facilitate aggregation services. They considered that such enhancements to the proposed 'Vanilla' DSR arrangements could either be considered at a later date, or could be provided by Shippers through commercial aggregation service contracts outside the DSR Mechanism.

### **DNO Information provision for accepted LDZ embedded DSR Offers**

A DNO respondent stated that they were unable to see any reference within the Framework or Methodology of a notification to Distribution Networks Operators (DNO's) of accepted DSR Offers interruption. The DNO respondents stated that due to the lack of such notification they would continue to include these sites in their demand forecasts and continue to take the gas from the NTS (unless sites affected have NExA agreements and nominate to the DNO directly). Therefore the DNO would not reduce offtake from the NTS. In addition, if the affected sites are shut down (without notification to the DN) at the start of the gas day when the DNO's network is fully linepacked, they would have nowhere to put the gas that these sites would have taken. Therefore the DNOs may need to break their own OPN submission rules in order to manage their network.

As we have previously stated in this document, we recognise that this issue merits further attention. However, we believe that this concern is a part of a wider issue of gas market trading having an impact on DNO Network flows and the visibility of this activity to the relevant network owners. It is not one generated by the development of a DSR Framework or Methodology.

### **Certainty of Volume being offered**

One respondent noted that although the DSR Framework and Methodology does meet the licence obligation, it does not give the SO any greater certainty over gas volumes contracted ahead of a Gas Deficit Warning (GDW) or Gas Deficit Emergency (GDE). However, they recognised the concern that having volumes contracted ahead of time may introduce market distortions. The respondent questioned which approach on balance was more consistent with the aims of the Gas Significant Code Review, to reduce the likelihood, severity and/or duration of a GDE, and suggested that this was a matter for the Authority to assess.



## Summary of representations

Consultation Question	Stance	Number of Responses	Comments	Respondents Name
<b>Q1: Do you consider that the DSR Framework and Methodology should set out provisions for the gas procurement arrangements between National Grid and Shippers, with only high level references to the Demand Side Response contractual arrangements between Shippers/Suppliers and Gas Consumers?</b>	Agree	9	"It would be inappropriate and not possible for National Grid to seek to prescribe or influence contractual terms between Shippers/Suppliers and gas consumers. It is therefore important that the DSR Framework and Methodology should focus on possible arrangements between National Grid and Shippers that might be enforceable via modifications to the Uniform Network Code. Any reference to arrangements between gas Shippers, Suppliers and consumers should be for guidance/ information purposes only."	BGT, SSE, E.On, Energy UK, RWE, BGMC, EIUG, BCC, MEUC
			"it is not the role of a framework or methodology to set out detailed contractual arrangements rather setting out high level principles is appropriate"	
			"By allowing parties to negotiate specific terms on contractual agreements such as lead-times, reduction profiles, notification periods, tick down aspects, specific consumers' needs can be accommodated more successfully than trying to set out criteria."	
			".. some members have expressed concern about where the liability would lie if a Shipper posts an erroneous bid which is subsequently accepted and that if this happened the consumer may not even know what had been posted as they have no access to the OCM locational platform."	
	"It may be useful to 'have a standard proforma for submitting offers to Suppliers' and if taken forward, 'must be designed with input from all customers...'"			
No Comment	3			SGN,NGD, HSE
<b>Majority viewed that Shipper to End Consumer DSR contractual arrangements should not be prescribed within the DSR Framework and Methodology</b>				
<b>Q2: do you consider that the current OCM provides an appropriate platform to facilitate the provision of a DSR product?</b>	Agree	7	"we consider it is a cost effective means to deliver DSR provision"	SSE, E.On UK, Energy UK, RWE, BGMC, MEUC, BCC
			"well established platform that Shippers are familiar with, which is likely to be important in the run up to an emergency."	

			"Extending the scope of the existing OCM Locational Market to include the new DSR product would be more cost effective for End Consumers (who ultimately bear the costs) compared to building new, separate DSR Platform"	
			"assurances have previously been provided that it is only the meter number that is visible and does not contain any detail of the sites location. Assurances have also been provided that this offer is only visible to OCM participants and that the only mechanism of participation in the OCM is via either a Shipper or a trader who are signatory to the Uniform Network Code."	
			"While not used extensively, it would be preferable if this market could be retained and a view of the costs involved of retaining the existing Locational Market in addition to a revised DSR version would be welcome."	
Comment	1		"probably the main disadvantage is the potential lack of visibility to National Grid of the bid information until a GDW is issued....difficult for National Grid to monitor and assess the industry take up of the DSR product",	BGT
			"a key (and probably over-riding) advantage is the likely low cost of using currently available facilities."	
No Comment	4			MEUC, HSE, SGN, NGD
<p><b>Majority of respondents agreed that the current OCM Locational market would provide an effective platform to deliver the DSR Product, however there were concerns expressed regarding visibility of other locational tools which also utilise this market. Some End Consumers responses considered that they did not have enough knowledge about the OCM to comment.</b></p>				
<b>Q3: Does the proposed DSR Product meet your expectations in respect of providing sufficient market offer flexibility to match your</b>	Yes	9	"A Daily Product and Multi-day Product, together with the ability to offer different volume and price combinations and multiple tranches should provide sufficient flexibility for most eligible end-users that wish to participate to tailor offers to reflect their operational requirements."	BGT, SSE, E.On UK, RWE, Energy UK, BGMC, IEUG, BCC, MEUC

operational requirements when determining and offering DSR? If not, which aspect(s) would you change, add or remove?			"The products should help to limit daily interaction between Shippers, Suppliers and consumers because they to some extent remove the possible need for daily revisions to bids (which would probably be required had the weekly profile option not been devised). This should help to keep Shipper/supplier administration costs down."	
			"Yes, although the extent of the flexibility may not be clear and may be subject to Shipper/supplier's decision."	
			"BCC welcome the ability to submit DSR Offers over a single day or grouped multiple days and for the ability to submit separate tranches (each if which may be priced individually)." But noted that "the DSR product will be to turn gas consumption down by an agreed volume. As a result, it will be more difficult for those end users with a variable demand profile to participate because the volume of gas that could be forgone on any given day will vary and at times could be zero."	
			"One element of the proposal that could cause difficulty is the requirement to turn down by an agreed volume rather than to a predetermined level of consumption of consumption when the consumer's peak demand may vary."	
	No Comment	3		HSE, SGN,NGD
<p><b>All who respondents considered that the proposed DSR product provided sufficient flexibility, however with that flexibility some Shippers, that responded, raised concern regarding resources required to accommodate such flexibility during times of system stress. End Consumers raised concerns over the difficulties associated with responding to the offer with a specified volume of reduction.</b></p>				
Q4: Do the criteria and arrangements set out within the Framework and Methodology for the posting and processing of DSR Offers meet your requirements? If not, could you describe the	Yes	8	"From the Shipper perspective, the requirement to update and/or withdraw offers should be subject to individual contract, rather than seen as a generic feature of the arrangements. Shippers may want to set their own limits on the frequency and lead-times with which offers may be updated and/or withdrawn, particularly at times of tightening supply and demand, when their focus may be on other matters."	RWE, BGMC, MEUC, EIUG, Energy UK, E.ON UK, SSE, BGT

<b>new issues you would like to be considered?</b>	Comments	1	"We believe that this minimum volume requirement is too high and rules out a large number of gas-intensive, industrial sites that might otherwise be willing to offer DSR. BCC strongly believe that a means of aggregating smaller sites (which individually are each below the threshold) is required to increase participation levels and hence increase the volume of DSR offered. Adopting such an approach would make the gas DSR product analogous to the electricity Demand Side Balancing Reserve (DSBR) product."	BCC
	No view	3		HSE, SGN,NGD

Most agreed that the criteria and arrangements set out in the framework and methodology meet their requirements, and delivered a 'vanilla' product. Though some Shippers, who responded, suggested that through individual Shipper/End Consumer contractual arrangements, it may be that limits on the frequency of bid updates are agreed in order that Shipper's operational resources aren't impacted at time when they are most strained. Some respondents felt that there could be merit in considering the aggregation of volumes from several small sites to make up the required minimum volume.

<b>Q5: In respect of the development of the DSR Framework and Methodology, do you consider that you have been given sufficient opportunity to provide your input into the development of the DSR Framework and Methodology? Have we listened and taken account of your views?</b>	Agree	9	"we have engaged in the DSR development process and have nothing further to add at this stage. We are pleased that NG has listened to customer and Shipper views throughout the development process and adapted their proposals as far as possible."	BGT, SSE, E.On UK, RWE, Energy UK, BGMC, EIUG, BCC, MEUC
	No Comment	3		HSE, SGN, NGD

All respondents stated that they were satisfied that they have been given sufficient opportunity to provide input to the development of the DSR Framework and Methodology.

<b>Q6: Do you consider that the Draft DSR Framework and Methodology, the</b>	Agree	8	"But ultimately it will depend on the level of interest and uptake by Customers."	BGT, SSE, E.On UK, Energy UK, BGMC, EIUG,
--	-------	---	---	---

<p><b>proposed DSR Mechanism and the suggested Shipper/Supplier to Gas Consumer service agreement structure delivers an efficient and economic approach, through which Gas Consumers may provide DSR, that may otherwise not be available during periods of acute gas market stress?</b></p>			<p>"a balance has to be struck between offering new products and the cost of introducing them. So, whilst more flexible products (than those being offered) might seem desirable by consumers this has to be weighed against the cost of making these products available. We believe that the expected low-cost approach of the current proposals is sensible and will provide a proper balance between flexibility of product and the cost of implementation."</p>	BCC, MEUC
			<p>"we welcome a DSR which facilitates economic disconnection based on end-users costs rather than the size of the load. This ensures that critical loads are protected whilst maintaining the integrity of the system."</p>	
	Comment	1	<p>"Voluntary commercial interruption contracts can currently be signed, but a market has not developed for a number of reasons. One of the stated reasons is that end-users would prefer National Grid as counter-party and the current Draft DSR Framework and Methodology creates a proxy for this by limiting the DSR Offers to be exercised only by National Grid for National Balancing Purposes and post declaration of GDW and up to the end of GDE stage 1. From this perspective, the Draft DSR Framework and Methodology may facilitate DSR volumes. However, it must be noted that Shippers/Suppliers still retain the central role in the contracting for, delivery of and liability for non-delivery of any DSR volumes. This will create additional risks for Shippers/Suppliers that are likely to be reflected in any premium for facilitating the service."</p>	RWE
No Comment	3			HSE,SGN, NGD

**Most respondents agreed that the proposed DSR arrangements may deliver an efficient and economic approach, however it was caveated that this was dependant on Consumers participation uptake, the true cost of development and concerns associated with the Shipper/Consumer contractual agreement, particularly in the context of Liabilities.**

<p><b>Q7: Do you consider that the DSR Framework and Methodology should set out provisions for the gas procurement arrangements between National Grid and</b></p>	Agree	5	<p>BGT commented that "The DSR Framework and Methodology correctly identifies the relevant contractual relationships for the posting of DSR Offers. Furthermore, it does not try to impose, or seek to impose, any limitations or requirements with regard to contractual arrangements between Shippers and Suppliers or between Suppliers and consumers."</p>	BGT, SSE,RWE E.On UK, Energy UK
---	-------	---	--	---------------------------------

Shippers, with only high level references to the Demand Side Response contractual arrangements between Shippers/Suppliers and Gas Consumers?	No Comment or N/A	7		BGMC, EIUG,BCC, MEUC,HSE, SGN, NGD
<b>Respondents that commented agreed that the Framework and Methodology should set out NG gas procurement arrangements with only high-level reference to Consumer/Shipper contracts</b>				
Q8: Do you consider that the proposed DSR Framework and Methodology satisfies the eligibility criteria set out in the Licence Condition SC81.4 (b)? If not, do you have any views on how to better satisfy this principle?	Agree	6	RWE commented that "The eligibility Criteria is based upon the UNC definition of a DMC Supply Point. Subject to meeting the minimum OCM offer quantity (100,000kWh/day), there are no further restrictions on participation."	BGT, SSE,RWE, E.On UK, Energy UK, MEUC
	No Comment or N/A	6		BGMC, EIUG,BCC, HSE, SGN, NGD
<b>Agreed that eligibility criteria satisfied the Licence Condition</b>				
Q9: Are you satisfied that the introduction of the DSR Framework and Methodology through the proposed revisions to the Locational Market of the OCM Platform is the most appropriate approach to meet the principles set out in Licence Condition SC81.4 (c)? If not, would you like to share any other options which in your opinion would better satisfy this principle?	Agree	5	RWE commented that "It is difficult to comment on the appropriateness of a particular approach. As proposed, the DSR Framework and Methodology meets the objectives that the Licensee is the sole party able to accept DSR Offers. Modifying existing functionality to facilitate that is a pragmatic approach."	BGT, SSE,RWE, E.On UK, Energy UK
	No Comment or N/A	7		BGMC, MEUC, EIUG,BCC, HSE, SGN, NGD
<b>General view was that the proposed arrangements met this Licence Condition through a timely and potentially low cost approach</b>				
Q10: Do you consider that this proposed DSR Framework and Methodology satisfies the principle set out in	Agree	5		BGT, SSE,RWE E.On UK, Energy UK

Licence Condition SC8I.4 (d) which requires all DSR Offers to be treated as 'Eligible Balancing Actions' and included in System Clearing Contracts and the calculation of Cash-out prices? If not, could you provide details of any compatibility issues that you feel would conflict with this principle?	No Comment or N/A	7		BGMC, MEUC, EIUG, BCC, HSE, SGN, NGD
<b>General view was that the proposed arrangements met this Licence Condition</b>				
Q11: Do you consider that the proposed DSR Framework and Methodology provides you or other Gas Consumers with an additional 'route to market'?	Agree	9	"BCC believes that the proposed DSR framework could provide an additional route to market for some large, industrial gas users that have the flexibility to sacrifice consumption in excess of 100,000 kWh/meter point/day."	BGT, SSE, E.On UK, RWE, Energy UK, MEUC, BGMC, EIUG, BCC
			BGMC commented that, "Yes. Where customers can be part of the solution before a gas deficit emergency, they should be offered financial incentives thereby protecting the supply for users whose VOLL is much higher."	
			"EIUG believes that the proposed DSR framework could indeed provide an additional route to market for energy intensive industrial gas users, and potentially other large gas users too. The extent to which this route to market is likely to be exploited by energy intensive industrial gas users is far from clear, however."	
			RWE commented that, "The route to market already exists, so cannot be considered additional. What it does do is introduce National Grid as counter-party so it does address possible barriers to consumers providing DSR volumes, subject to agreeing a contract with a Shipper/supplier."	
	No Comment or N/A	3		HSE, SGN, NGD
<b>All respondents that commented, to varying degrees, agreed that the DSR product may provide a 'route to market', however some respondents caveated this by highlighting the uncertainties associated with contractual arrangements and minimum bid size volumes.</b>				
Q12: Does the proposed DSR Framework and Methodology provide a 'route to market' for a DSR product that you would be interested in providing?	Comment	5	BGT commented that 1. "Our interest in facilitating this route to market will depend on the contractual terms that can be agreed with Suppliers/ consumers."	BGT, BCC, EIUG, SSE, Energy UK
			BCC commented "very few ceramic manufacturing sites that would be able to meet the 100,000 kWh/meter point/day minimum offer size. We believe that aggregation across smaller sites is required to increase participation levels"	

			<p>EIUG commented "It is not clear to what extent the proposed DSR Framework and Methodology will succeed in providing a route to market that EIUG members would be interested to provide. This will depend on the contractual terms available. Nevertheless, we understand that a number of EIUG members are potentially interested in discussing terms with Shippers/Suppliers."</p> <p>Energy UK concurred with SSE that "From a gas –fired generation perspective, where plant owners / operators are closely aligned with the supplier/ Shipper it is likely that these arrangements would not be attractive. Rather existing internal arrangements would facilitate a route to market for any demand side response when considered on a portfolio basis."</p>	
No	1	"Ofgem say in their final policy decision document on page 19 "therefore the likelihood of the mechanism being utilised is extremely low" they feel it would be a waste of their time negotiating additional contract terms with their supplier and considering the level of bid to submit, or in Ofgem terms the cost benefit of being involved is not justified."	MEUC	
Yes	2	<p>BGMC stated "Yes, it is likely that some glass sector companies will be interested in discussing DSR Offers with their supplier / Shipper.""</p> <p>Statoil stated "However it will be the willingness of customers to agree contractual terms which will determine the success of this product."</p> <p>E.On UK stated "As a Shipper/supplier, we are happy to facilitate customer participation in this process."</p>	BGMC, E.On UK	
No comment	4		RWE, HSE, SGN, NGD	

Mixed views were expressed to Q12: some respondents noted that appetite for utilising the product depended on the contractual arrangements; others suggested that the minimum bid size could put consumers off participating and perhaps aggregator arrangements could be considered.

<p><b>Q13: Would you agree that the proposed DSR Framework and Methodology does not unduly preclude the emergence of further commercial interruption arrangements? If not, could you provide information regarding which element you feel could prevent the emergence of commercial interruption, and any view on how this could</b></p>	Agree	8	MEUC stated "yes – I agree that it does not prevent commercial interruption emerging; in fact the only difference for a consumer between the two is that the ng proposal limits the point at which the interruption can be exercised"	BGT, SSE, EON UK, RWE, Energy UK,BCC, IEUG,MEUC
	No Comment	4		RWE, HSE, SGN, NGD



be mitigated?				
<b>General view was that the product would not impact the emergence of commercial interruption</b>				
<b>Q14: Do you foresee any distortions or unintended consequences that the introduction of the DSR Framework and Methodology may have on the existing gas market or gas supply contract arrangements and the principle of parties balancing their own positions in the wholesale gas market?</b>	No issue foreseen	3	SSE concurred with Energy UK that "No – however the issue of non-delivery of exercised contracted volumes will need to be addressed in customer – supplier contracts and if this occurs could give rise to Shipper imbalance."	BGT, SSE, Energy UK
			BGT commented "We do not foresee any distortions or unintended consequences. However, contract negotiations may prove to be more difficult especially until such a time as experience is gained by Shippers, Suppliers and consumers in formulating contractual terms and conditions pertaining to the provision of DSR Offers"	
			RWE noted that "The design of the DSR Framework and Methodology retains the focus on Shippers balancing their own positions, with the DSR arrangements only deployed in clearly defined circumstances. We agree with National Grid that the proposals are unlikely to reduce liquidity."	
	Comment	1		E.ON UK
	No Comment or N/A	8		RWE, IEUG, BGMC, BCC, MEUC, HSE, SGN, NGD
<b>Respondents highlighted concerns associated with non-delivery of exercised contracts and the consequences this may have on the Shippers balance position and financial risk. They noted that these risks would need to be addressed as part of the Shipper/ Consumer Contract</b>				
<b>Q15: Do you believe that the proposed DSR Framework and Methodology facilitates the procurement of DSR in a manner consistent with the National Grid's obligation to operate its</b>	Comments	4	SSE and Energy UK stated "This question relates to the issue of an option fee as a means of attracting more participation but analysis showed this was not cost effective given the frequency within which the product may be utilised. We maintain our view that an option fee would be likely to increase participation but accept the position adopted."	E.ON UK, SSE, Energy UK, SGN

<p>pipeline system in an efficient and economic manner?</p>			<p>SGN highlighted the concern that, "We are unable to see any reference within the Framework or Methodology with regards to notification to Distribution Networks (DN's) of DSR interruption Unless DN's are notified, we will continue to include these sites in our forecast and take the gas from the NTS (unless sites affected have NExA agreements and nominate to us directly) thus not reducing our intake and associated NTS demand." and "In addition, if the affected sites are shut down (without notification to the DN) at the start of the gas day when our network is fully linepacked, we will have nowhere to put the gas that these sites would have taken and therefore may need to break OPN rules in order to manage our network."</p>	
			<p>RWE commented that "We believe that the inclusion of an option fee would make the product significantly more attractive to customers (and also CCGTs), but inevitably this comes with a cost to industry and ultimately, consumers. We note the inconsistency between the current electricity Demand Side Balancing Reserve product, which does include an option fee, and this proposed DSR product in the gas market"</p>	
	No Comment or N/A	7		RWE, BCC, IEUG, MEUC, BGMC, HSE, NGD
Yes	1		"It provides a proportionate approach at an expected minimal cost."	BGT
<p><b>DNO raised concerns associated with the operation of the pipeline system in terms of information provision associated with sites, within their LDZ, that may reduce offtake through DSR arrangements.</b></p>				
<p><b>Q16: Do you consider that the proposed DSR Framework and Methodology would provide an improvement to the incentives on the gas</b></p>	Yes	4	<p>SSE and Energy UK commented "Provided appropriate contractual arrangements can be put in place between customers and Suppliers and all parties have confidence in these then this framework may assist Suppliers in meeting the domestic security standard."</p>	SSE, RWE, BGT, Energy UK

Suppliers to secure the domestic customer supply security standard?			RWE Stated that "Implementation of a DSR mechanism will introduce the risk of VoLL into the calculation of cash-out prices. Coupled with the strengthened pricing signal from the reformed cash-out arrangements that will be implemented, this will provide strong incentives on Shippers to take appropriate action to avoid an emergency occurring or at least being short during the emergency."	
	Comments	2	"BCC's long-standing position is for investment in measures that improve the physical availability of gas, principally additional gas storage, rather than complex market-based instruments (e.g. cash-out) that offer limited potential for our sector."  E.ON UK commented "... in our view this product is unlikely to deliver sufficient volume in itself to avert a Gas Deficit Emergency. To potentially achieve this, CCGTs would have to be included in the scope of the product; which they are not." E.ON adds "In addition, we have no reason to believe the current domestic supply standard is not already being met and therefore "incentivising" anything above this, in an attempt to "gold plate" the standard, will come at a cost; ultimately to consumers."	E.ON UK, BCC
	No comment or N/A	6		IEUG, MEUC, BGMC, HSE, SGN, NGD

Although most Shippers, that responded, broadly agreed that the proposed DSR arrangement would improve the incentive on security of supply, other respondents suggested that the DSR product might be too complex and unlikely to attract sufficient volumes to improve incentivise on the security of supply.

Q17: We would value any additional comments you would like to share with us regarding the process we have adopted in developing of the DSR Framework and Methodology.	comments	5	RWE commented "In our view, the current DSR Framework and Methodology is quite different from the centralised annual SO tender as contemplated in the Gas Security of Supply Significant Code Review. The DSR Framework and Methodology does meet the licence obligations, but does not give the SO any certainty over volumes ahead of the GDW/GDE. We recognise that having volumes contracted ahead of time may introduce some market distortions but whether, on balance, this is more consistent with the aim of the Gas SCR to reduce the likelihood, severity and/or duration of a GDE is a matter for the Authority to assess."	SSE, RWE, Energy UK, MEUC, NGD
---	----------	---	---	--------------------------------

			<p>MEUC commented that "I cannot let the opportunity pass without expressing my members' views that the omission of option fees has killed their interest in the scheme, which will significantly reduce the potential number of participants..."</p>	
			<p>NGD commented that, "Whilst National Grid Distribution is comfortable with the Framework as identified; there is a concern that the relevant Distribution Network would have no visibility of an accepted Demand Side Response (DSR) Offer. It would be beneficial to the relevant Distribution Control Centre to understand what Offers have been accepted so that they may profile their planned gas usage for the day in a more accurate manner."</p>	
			<p>SSE and Energy UK commented "We consider National Grid has worked hard to engage with and encourage contributions from customers and their representatives as well as Suppliers / Shippers on this issue which is competing with many other regulatory issues at the current time."</p>	

# Stakeholder Engagement: Development of a Demand Side Response Framework and Methodology

---

## *National Grid Gas Transmission*

*To achieve the successful development of a DSR Framework and Methodology it was essential that National Grid understood the needs and requirements of all stakeholders that may have had an interest participating in, or who were potentially affected by, the DSR mechanism. This guidance document aims to take you through the steps we took to ensure we effectively engaged with our stakeholders throughout the development of the DSR Framework and Methodology.*

---

# National Grid Gas Transmission Stakeholder Engagement on the Development of a Demand Side Response Framework and Methodology 2014/2015

This document seeks to demonstrate National Grid Gas Transmission’s compliance with Special Condition 81.2: ‘*Development and implementation of a Demand Side Response methodology for use after a Gas Deficit Warning*’ and specifically the expectation that we would develop the DSR mechanism in coordination with our stakeholders.

<i>Contents</i>	<i>Page</i>
Our DSR stakeholder engagement strategy	2
Our DSR stakeholder engagement plan:	3
<i>Identify: We have engaged and broad inclusive range of stakeholders</i>	4
<i>Understand: We have engaged and broad inclusive range of stakeholders</i>	5
<i>Tailor: Using appropriate mechanisms to inform and engage our stakeholders</i>	6
<i>Act / Inform: Using appropriate mechanisms to inform and engage our stakeholders</i>	7
<i>Measure: Use appropriate tools to measure the effectiveness of the stakeholder engagement strategy</i>	8
‘Agile’ Stakeholder Engagement Examples – DSR Survey	9
‘Agile’ Stakeholder Engagement Examples – Product design: Option fees	10
‘Agile’ Stakeholder Engagement Examples – Product design: Product Flexibility	11
Appendix 1: Stakeholder Groups	12



- Initial meetings with large consumers and consumer representative groups to gain initial feedback on the DSR concept,
- Set up Joint Office run industry workgroups,
- Tailored bilateral meetings and discussions,
- Completed DSR Stakeholder Survey,
- Developed and ran consultation on the DSR Framework & Methodology.

# Our Demand Side Response Stakeholder Engagement Strategy

## Identify

- We will identify the stakeholder groups that may have an interest in participating in, or may be affected by, the development and introduction of a DSR Methodology and Framework.

## Understand

- Prior to initiating the detailed development of a DSR mechanism, through industry wide engagement, we will seek to understand stakeholder appetite for and the awareness, knowledge, expectations and requirements of, a DSR product.

## Tailor

- We anticipate that each stakeholder group will have different needs, interest and levels of familiarity with the structure of the commercial arrangements within the GB on-shore gas industry and the DSR subject. Therefore, we will tailor our engagement strategies to ensure that they best meet the needs of each stakeholder group as well as individual stakeholders.

## Act

- Having listened to and recorded the requirements of all identified stakeholders we will ensure the features of the DSR Framework and Methodology encompasses our stakeholders' needs, whilst ensuring Special Condition 8I as set out within our Gas Transporter Licence is met.

## Inform

- We intend to use a number of familiar and existing industry stakeholder communication mechanisms to keep our stakeholders informed of our progress on DSR development. These mechanisms will also provide them with the opportunity to feed in their views and concerns which we will seek to address and incorporate into the Final DSR Framework and Methodology.

## Measure

- We will measure the effectiveness of our engagement by facilitating and requesting feedback from our stakeholders. We will ensure our stakeholders have regular and well published opportunities to input their views into the process.

In developing the DSR Framework and Methodology we have followed National Grid's Stakeholder Engagement Strategy. This breaks stakeholder engagement down into six key steps:

- **Identify** our stakeholders;
- **Understand** them, their needs and their relationship with us;
- **Tailor** engagement according to their specific needs;
- **Act** on what they have told us;
- **Inform** them how we have taken their views into account;
- **Measure** the effectiveness of those improvements.

# Our Demand Side Response Stakeholder Engagement Plan

Preliminary stakeholder engagement meetings May-June 2014

- Work with Consumer Group Representatives to schedule 1:2:1 'fact finding' and familiarisation sessions with those groups.
- Schedule group and 1:2:1 sessions with Shippers to improve DSR product familiarisation and also to understand their requirements, views and concerns.
- Establish and communicate DSR project communication links: e.g. email account database of stakeholders to forward meeting summaries and presentation material to stakeholders not able to attend workgroup.
- Establish a DSR Workgroup section on the Joint Office website, to ensure ease of access to DSR documents for all stakeholders on a industry recognised and supported information portal.

DSR Workgroup development June - Dec 2014

- Plan the seven DSR Workgroup sessions (Joint Office facilitated), these will be held on a monthly basis and will be open to all interested parties.
- Establish and support communication links with non network code signatories / non workgroup attendees to increase visibility of the workgroups and DSR mechanism development.
- As a starting point: present our initial view of the DSR product and framework design developed from the outputs of the preliminary stakeholder engagement sessions.
- Highlight to workgroup any issues which have been identified during continued stakeholder engagement sessions.
- Create and distribute a DSR stakeholder survey to help us understand what the End Consumer appetite is for the DSR Product .

Industry DSR Consultation 19 Dec 2014 - 23 January 2015

- Use the latter workgroups to discuss the DSR Framework & Methodology and the DSR Consultation Document to get feedback so that it can be reviewed and enhanced prior to launching the consultation.
- Publish the DSR Consultation Document including the DSR Framework & Methodology and supporting papers for industry consultation on the 19 December 2014.
- Hold a final workgroup meeting following the consultation so that other outstanding issues raised in the responses can be discussed.

Issue DSR Framework & Methodology report to Ofgem 01 March 2015

- Incorporate any additional stakeholder feedback received through the final workgroup session into the DSR Framework and Methodology consultation report to Ofgem.
- Publish DSR Framework and Methodology Report to Ofgem.



Our DSR Stakeholder Engagement Plan aims to highlight the key areas of engagement activity which we will seek to complete throughout the development of the DSR mechanism



## Identify: We have engaged a broad and inclusive range of stakeholders

The development of a DSR Framework and Methodology covers a range of relatively complex processes, which affect activities undertaken as part of the physical and commercial operation of the gas system, as well as affecting large industrial consumers' management of gas demand and production arrangements.

We have identified, with the help of other stakeholders, a broad spectrum of stakeholders that may potentially have an interest in, or be affected by, the introduction of a DSR Methodology and Framework.

In particular we have identified the diverse needs of large industrial consumers groups in respect of:

- expectations for the development of the DSR product; and
- differing levels of familiarity with the commercial structure of the GB gas regime, gas emergency processes, the 'On the day Commodity Market' and the principles of Gas DSR.

We mapped our stakeholders into groups to help us tailor an engagement strategy which best met each stakeholder's needs.

The introduction of the development of a centralised DSR mechanism was one of the outcomes of the Gas Security of Supply Significant Code review (SCR). As a result of this there was a lot of stakeholder interest in the development of DSR. Therefore our starting point, when identifying the appropriate stakeholders to engage with, was to utilise existing stakeholder relationships that we had built up throughout the SCR discussions. These initial engagement meetings proved very valuable at identifying additional stakeholders, particularly a number of Large Industrial consumers, which may be interested in participating in the DSR product. The utilisation of the Joint Office workgroup process also enabled us to get in touch with/ hear from additional stakeholders who were interested in attending the initial workgroup meetings to understand more about DSR.

Stakeholder Group	Stakeholder	Building relationship
Consumer	<ul style="list-style-type: none"> <li>• Consumer Group representative</li> <li>• Consumer (Large Industrial) (see further breakdown into stakeholder subgroups in Appendix 1)</li> </ul>	We have engaged with both consumer group representatives and directly with consumers through a series of face to face meetings and also on numerous teleconference calls. Also there has been strong representation from the consumer group representatives at the DSR workgroups which were facilitated by the Joint Office of gas transporters.
Customer	<ul style="list-style-type: none"> <li>• Gas Shipper</li> <li>• Gas Supplier</li> </ul>	A number of Gas Shippers and Suppliers attended the DSR development workgroups. This allowed us to hear, and take account of, their views on the product design.
Energy Industry	<ul style="list-style-type: none"> <li>• Distribution Network Operator</li> <li>• OCM Market Operator</li> <li>• Consumers</li> <li>• Joint Office</li> <li>• UNC Modification Panel</li> </ul>	We have held a number of meetings to ensure members of the energy industry were kept up to date with our progress and also to give them the opportunity to feed their ideas into the development process when they couldn't attend the monthly workgroups. We also utilised numerous communication channels to ensure the outcomes of the DSR workgroups were fed back to the industry, via information uploaded onto the Joint Office website and also by sending out monthly meeting summaries from the DSR email account, providing a central contact point within National Grid. We engaged with the UNC Modification Panel to seek their agreement on our proposed approach of, utilising the Joint Office and UNC processes.
Regulators	<ul style="list-style-type: none"> <li>• Ofgem</li> </ul>	We developed a close working relationship with Ofgem throughout the development of their Significant Code Review (SCR). This relationship has continued throughout the development of DSR by holding regular face to face meetings and conference calls. Ofgem were also present at the monthly DSR workgroups which enabled us and the industry to engage with them throughout the development process.

# Understand: We have engaged a broad and inclusive range of stakeholders

## Putting the DSR Stakeholder Engagement Plan into effect

Prior to starting the design and development of the DSR product we carried out preliminary meetings to enable us to better understand the requirements, views and concerns of our stakeholders.

Following the preliminary meetings we held seven DSR development workgroups. These were coordinated and facilitated by the Joint Office. Attendance was open to anyone who was interested in, or affected by, the development and introduction of DSR. Alongside the DSR workgroup we also arranged a series of bilateral meetings and conference calls to ensure we understood all of their requirements.

This understanding enabled us to map our stakeholder engagement activities against their interest in the DSR product development, and therefore allowed us to tailor our approach to individual or stakeholder groups based on these results. Stakeholder areas of interest were then collated into an agreed programme of work as outlined below.

### DSR workgroup event Programme

- 
- 1 • Establish workgroup programme of work
  - 1 • Background to DSR

---

  - 2 • Option Fees
  - 2 • Eligibility rules
  - 2 • Timescales of Service -process flow- interactions between parties
  - 2 • DSR Offer posting and acceptance processes

---

  - 3 • Contractual Arrangements - Service Fees – pricing offer
  - 3 • Payment, Cost, liabilities for failing to interrupt
  - 3 • Payment and settlement arrangements – including timescale between three parties

---

  - 4 • DSR Trial
  - 4 • OCM Platform

---

  - 5 • DSR offer price input on Cash out
  - 5 • Draft Methodology and Business Rules review

---

  - 6 • Outstanding issues
  - 6 • Review and sign off DSR Framework & Methodology and consultation
- 



## Tailor: Using appropriate mechanisms to inform and engage our Stakeholders

We are mindful that our stakeholders have many other priorities and commitments, which means that they may have only limited time to participate in the DSR development and consultation processes. We have therefore recognised the importance of supported, tailored and targeted engagement. Wherever possible we have tried to:

- Use stakeholders' own communication forums and processes,
- Visit stakeholders and customers at their site, at their convenience,
- Use a variety of methods of delivering / communicating information which they have told us they would prefer.

We have sought to use existing and familiar communication processes through which Stakeholders may easily source DSR information. Mindful that our stakeholders may not have the time or resources to read through large volumes of DSR documents we have endeavoured to issue monthly one page "Plain English" summaries that provide a quick and easy to read DSR development progress update.

### Different methods of engagement

Type of engagement	Stakeholder Group	How we did this
Face to Face	All	7 Workgroup sessions (chair by JO)
	Customers	4 customers monthly/quarterly forums
	Customers	6 Conference Calls
	Consumers	3 Workshops
	Consumers	3 Consumer quarterly forums
	Consumers	3 Individual Site visits
	Consumers	5 Conference calls
	DNOs	1 quarterly Forum
	Market Operator	3 workshops
Reports and Consultations	All	Monthly presentation slide packs
	All	Monthly workgroup minutes
	All	Monthly workgroup one page summaries
	All	DSR consultation and supporting documents
	All	Volumetrics Analysis
Digital and Social Media	All	Joint Office website
	Consumers	.Box.DSRDevelopment
Survey	Consumers	Electronic survey sent out via email
	Consumers	Targeted Follow up telephone calls



We consider National Grid has worked hard to engage with and encourage contributions from customers and their representatives as well as Supplier/ Shippers on this issue”.

# Act / Inform: Improving our business in response to stakeholder feedback

**Act:** Incorporating the views of our stakeholders into the design of the DSR Methodology and Framework means that we can provide a DSR mechanism that better reflects their needs, priorities and expectations. The product we have designed will therefore be customer aligned due to having input from the people that it will impact.

**Inform:** Throughout the development of the DSR Mechanism we have taken an agile approach to the product development process. This has involved listening to stakeholder views, taking them on board, feeding them into the product design and then updating our stakeholders on the changes that we have made in response to their feedback. This has been an essential part of keeping our stakeholders engaged and creating a product which works for them.

What our stakeholders told us	How we have responded
We would like to be notified in the event a Gas Deficit Warning was called	We published a link to the text and email service which National Grid offers, this alerts interested parties when a GDW has been declared.
We want parity with the supply side market participants	We listened to this feedback and adapted the product accordingly to include an 'unfrozen' screen based market in which stakeholders could change their price and volume in all situations.
We need the assurance that DSR won't be used as an everyday balancing tool by National Grid	The DSR Product will only be used in the event that a GDW has been declared; We have detailed this within the DSR Framework & Methodology legal document.
We haven't got the resources to regularly submit and change our prices / volumes into a complicated system	We have created a flexible product which enables stakeholders to submit a sleeping bid into the system which is capable of rolling over each day and therefore unless stakeholders decide to make a change to the price or volume this won't need to be changed.
The volume we can offer into DSR differs depending on the process which we are running. Therefore a daily product which rolls over each day with the same quantities offered wouldn't work for us	The product design enables stakeholder to submit a profiled offer; this allows them to submit different offer volumes and prices for each of the 7 days in a week, to take into account the different processes which they may run on different days of the week/ weekend.
We would like you to consider option fees within the product design process	We have carried out detailed analysis looking into the feasibility of option fees within the DSR mechanism. The results of this analysis have told us that it would not be economic or efficient to include them within the design of the DSR mechanism due to the low probability of a GDE. Also the results of our DSR stakeholder survey indicated that the majority of stakeholders did not support the provision of options fees, due to the costs being recovered from the wider industry.
We believe that there needs to be a standard Shipper/ Customer contract 'heads of terms' document, to ensure equal understanding of DSR requirements	We have provided a standard contract 'heads of terms' document which outlines the key features which should be considered within the contract between the End Consumer and the Shipper/ Supplier.



I believe I have been given a full opportunity to provide input into the DSR development”.

# Measure: Use appropriate tools to measure the effectiveness of the stakeholder engagement strategy

As part of the DSR consultation we asked stakeholders to share their views regarding whether they had been given sufficient opportunity to provide their input into the development of the DSR Framework and Methodology, and whether National Grid had listened to and taken account of their views during the

development of the DSR arrangements. All stakeholders, who responded to the consultation, agreed that they had been given the opportunity to provide input to the DSR development, and were generally pleased that National Grid had listened and engaged with all stakeholders involved in the process.

## Stakeholder DSR Consultation Feedback

"Yes, we have engaged in the DSR development process and have nothing further to add at this stage. We are pleased that NG has listened to customer and Shipper views throughout the development process and adapted their proposals as far as possible."

"Yes, we have actively participated in the development of the DSR Framework and Methodology and National Grid have been responsive to the views of us and other participants."

"EIUG and its members are grateful to have had the opportunity to provide input into the development of the DSR framework, and appreciate the efforts made by key National Grid staff to engage with us directly on this subject."

"Yes. It has been an effective, collaborative development process and with a wide range of stakeholder views sought and reflected in the current DSR Framework and Methodology drafting."

"BCC have actively engaged within the '0504 Development of a Demand Side Response Methodology for use after a Gas Deficit Warning' working group and our sector has contributed to the previous National Grid end user survey. BCC and its members are grateful to have had the opportunity to provide input into the development of the DSR framework and appreciate the ongoing efforts made by key National Grid staff to engage with us directly on this subject."

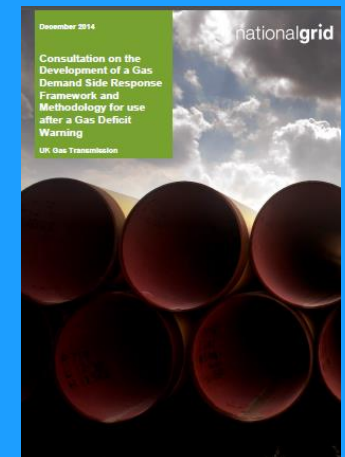
"I believe I have been given a full opportunity to provide input into the development. I believe my views have been listened to, but not always taken into account as Ofgem excluded some design criteria from consideration by the workgroup in their final consultation document."

"We consider National Grid has worked hard to engage with and encourage contributions from customers and their representatives as well as Suppliers / Shippers on this issue which is competing with many other regulatory issues at the current time."

"Statoil has taken part in a number of workgroups discussions which has offered adequate opportunity to provide input and debate all aspects of the framework and methodology."

"Yes, I have had the ability to attend meetings / of joining via telecom. I have also had telecoms with Grid outside of the meeting."

By keeping a close eye on how our stakeholders think we're doing we can continue to improve our engagement strategy and processes. We have done this throughout the development of the DSR Framework & Methodology, by providing open communication channels to encourage feedback, sending out a DSR stakeholder survey on the product design and also gathering further views in the DSR Framework & Methodology consultation.



# 'Agile' stakeholder engagement examples

What do we mean by 'Agile'? – Throughout the development of DSR we believe we adopted a proactive and dynamic approach to stakeholders' needs, we did this by; proposing and clarifying the issues to be resolved at each workgroup meeting with stakeholders, frequently reassessing the outcomes and direction of development and where possible adapting the product design in line with stakeholder requirements.

The DSR stakeholder survey aimed to:

- understand stakeholders views and opinions on the development design options for inclusion within the DSR Mechanism; and to
- understand which stakeholders would be interested in / able to participate in the mechanism based on the proposed design options.

## 5. Inform them of what we have

Communication with stakeholders was ongoing throughout the development of the DSR survey. It was discussed on a monthly basis at each of the WG meetings and we also had a number of teleconference calls and face to face meetings, with stakeholders between meetings to ensure we were accurately reflecting the views that they had previously expressed.

Prior to sending out the DSR survey it was reviewed and approved by the DSR WG.

The DSR survey was also one of the methods of communication (alongside the WG minutes) that we used to inform the wider industry that wasn't directly involved in the WG meetings of our progress with the development of the DSR product.

## 4. Act on what they are telling us

The changes made were:

- Revised the date that we sent out the survey to our stakeholders to allow more time to better define the DSR product,
- Added, removed and amended some questions
- Changed the layout of the survey to ensure the questions were clear and easy to answer.
- Amended the text to be more in keeping with a 'plain English' style.

## 1. Identify stakeholders

The design and content of the DSR survey was discussed with the cross section of DSR stakeholders which attended the DSR workgroup (WG) during three separate meetings. This provided a wide range of opinions and ideas which were included within the design of the survey.

## 2. Understand their needs

Various WG stakeholders expressed that in order for the DSR survey to be meaningful we should hold back release of the survey until the product design was more defined. They advised that this would allow customers to answer the questions with more accurate information and therefore make more informed decisions about their participation in the mechanism.

The WG also had a number of preferences towards the content of some of the questions and wanted to ensure questions important to them and the development of the mechanism were included.

## 3. Tailor accordingly

The feedback we received made us aware that our initial ideas on the style of the survey, the timeframe and also the content of some of the questions did not meet the needs and expectations of our stakeholders.

We used this feedback to refocus and redefine the aim and context of the DSR survey in order to meet the requirements defined by our stakeholders during the WG discussions.



# The DSR Stakeholder Survey

## Distribution of the DSR Survey

When sending out the DSR survey our aim was to reach as many eligible stakeholders as possible, so that we could get a fully representative range of responses. To enable this the DSR survey was sent out using a number of established industry distribution lists which were previously agreed with stakeholders including; the National Grid DSR stakeholder list, the Joint Office Distribution list and was also forwarded by the customer representatives to their respective industry group members.

## Measure of effectiveness

Stakeholder engagement on the design of the DSR survey enabled us to gain further understanding of our stakeholders' main requirements of the DSR mechanism, whilst also ensuring the survey was sent out to the correct audience in the correct manner. This enabled us to get 31 detailed and highly informative responses from our stakeholders. These responses have now been considered and incorporated within the design of the DSR mechanism.

# 'Agile' stakeholder engagement examples

Throughout the development of both the SCR and DSR, option fees were a highly debated topic between different stakeholder groups, Ofgem and National Grid. When considering the feasibility of inclusion within the product design we had a number of factors which had to be considered, such as; our licence condition principles, the cost-benefit analysis study undertaken by Pöyry on behalf of Ofgem and also our stakeholders' views and opinions.

## 5. Inform them of what we have done

The details of the product design were included within our industry consultation document. The product design did not include options fees; however as previously agreed we did state that some stakeholder's preference was for the inclusion of option fees within the DSR mechanism.

We also included a question on option fees in the DSR survey to enable us to understand the impact that omitting them from the product design could have on the DSR mechanism (this was also a stakeholder request).

## 4. Act on what they are telling us

After considering the different stakeholder views in relation to the analysis into the desirability of including option fees in the DSR product design, it became apparent that including option fees in the design could not be demonstrated to be consistent with the 8I licence condition regarding economic and efficiency. Therefore it was clear that we would not be able to meet all of our stakeholders' needs, in order to manage this we;

- Worked with the WG to communicate why we would not be recommending the inclusion of option fees in the product design,
- For those that were unable to support our conclusion we assured them that we would note their concerns within the consultation document so that these were visible to Ofgem when reviewing the design of the product.

## 1. Identify stakeholders

The initial pool of stakeholders who were interested in the DSR product was identified from the SCR discussions. Representation at the SCR discussions was mainly from shippers and consumer forum group lead representatives. These representatives highlighted further potential interested stakeholders and provided contact details for us to have follow up discussions and meetings to introduce DSR to these groups of customers.

## 2. Understand their needs

Throughout the initial DSR meetings with a range of stakeholders it became evident that there were numerous opinions about the inclusion of options fees within DSR, some of these are detailed below;

- Would require option fees to make DSR attractive enough to participate in,
- Would require option fees to enable customers to build storage / back up capability, so that it wouldn't impact any processes if they were required to turn down demand,
- If option fees were included this would pass costs onto the remaining industry stakeholders'.

## 3. Tailor accordingly

Due to the conflicting opinions on options fees between the different stakeholder groups, we had to tailor our approach depending upon our audience. We did this by;

- Providing and presenting the results of analysis which weighed up the costs and benefits of including option fees (this highlighted that it would be economically inefficient to include option fees based on the low likelihood of a GDE),
- Presented material which reinforced the aim (to protect consumers critical loads and maintain system stability at time of serve system stress) of the DSR mechanism to educate stakeholders.



## Product Design: Option fees

### Managing different stakeholders' views

Option fees were an extensively debated topic between a number of our stakeholders throughout the development of the DSR product; to manage this we used a combination of techniques to ensure that we met each of our stakeholder group's needs;

- Held a number of individual meetings with stakeholders who wanted to discuss this issue further,
- Conveyed stakeholders opinions to the work group when they couldn't make the meetings,
- Enabled stakeholders the opportunity to present further information to reinforce their argument for the inclusion of option fees which we then considered within our analysis,
- Ensured that a question on option fees was included within the DSR survey, so that we could understand how wide spreading the desire for option fees was and if some groups of stakeholders would still participate in the mechanism if they weren't included.
- Included our stakeholders opinions within our consultation document to ensure Ofgem were aware of the varied views expressed.

# 'Agile' stakeholder engagement examples

During the initial discussions on the DSR mechanism stakeholders' views highlighted the importance of confirming the product design and required customer actions as early on in the process as possible. One of the key elements of this was defining the product delivery measure and service duration once a DSR 'offer' was accepted. Initially we categorised this into three main options which were; a 'daily' product, a 'multiday product' and an 'off until called back on' product.

## 5. Inform them of what we have done

The final product duration designs were agreed with the stakeholders prior to being formalised. Following this the details were included within the DSR Framework and methodology and also within the DSR consultation.

## 1. Identify stakeholders

Impacted stakeholders;

- Shippers – Impacts how much work would be required by them to submit the offers on behalf of the End Consumers.
- End Consumers – product duration could affect the way they run their processes/equipment e.g. process shut down to start up could take a number of days, so a daily product might not be suitable in this situation and consumers might need the certainty of either a multiday product or a profiled design.

Initial discussions highlighted the stakeholders who were most impacted by the length of the product duration (as outlined above).

## 2. Understand their needs

From initial end consumer meetings it became apparent that due to the diverse groups of End Consumers which could participate in the DSR mechanism there were many different requirements for the product duration. This was largely dependent upon the type of work (industry) which the End Consumer was in, and therefore could affect the processes which they run. The main requirements noted were;

- Product to consider slow turn downs and start-ups so should be able to cover numerous days to compensate fully (Multi-day),
- Product should allow for changes in volumes each day to account for changes in processes (daily and 7 day profiles),
- Product should be treated the same as offers to increase supply made by "supply side" stakeholders and be as flexible as possible.

These are just a few examples of the requirements which were listed by our stakeholders throughout our initial meetings and also the workgroup meetings.

## 4. Act on what they are telling us

Using the stakeholder feedback we received in response to the combination of options we presented in the DSR workgroup discussions, we had a better understanding of how we could tailor our product design to ensure it met most of our stakeholders needs. This enabled us to create a very flexible suite of products where stakeholders can offer, daily, multiday and profiled offers, within an unfrozen market. We believe this flexible design will encourage maximum participation in this product and maximise the alignment between stakeholder needs and product features.



## 3. Tailor accordingly

When considering the product design duration it was imperative that we met our stakeholders' needs to ensure that we could encourage as much participation in this product as possible (whilst being mindful of not distorting commercial interruption growth). In order to achieve this we looked at various ways to make the product duration flexible. Working with our stakeholders during the DSR workgroups we discussed a combination of different options which could feature in the design of the DSR product.

## Product Design: Product Duration

Why was a flexible product offering required?

- Able to meet a wide range of stakeholder requirements,
- Maximise participation in the product and not limit some End Consumer groups who may not have been able to participate if the product was more fixed,
- Enable End Consumers to use the product in different ways to meet their varying requirements e.g. daily product on one tranche and multiday product on one tranche,
- Alignment with supply side participant's services.

Alignment with existing market processes:

In order to make the DSR mechanism familiar and limit the amount of time it would take to participate we recognised that it would be beneficial to use existing market processes where possible. Therefore the product designs include a combination of these existing processes e.g. daily or multiday product durations.



# Appendix 1: Stakeholder Groups

Stakeholder Group	Stakeholder	Company	
Consumer	<ul style="list-style-type: none"> <li>Consumer Group representatives</li> </ul>	Chemical Industries Association (CIA) Major Energy User Council (MEUC) British Ceramics Confederation (BCC)	Energy Intensive Users Group (EIUG) British Glass
	<ul style="list-style-type: none"> <li>Consumer – Chemical</li> </ul>	BASF – The Chemical Company Dow Corning Ltd Tata – Chemical Cala Chem	GrowHow Ineos Chorl vinyl's Cleveland Potash
	<ul style="list-style-type: none"> <li>Consumer – Steel</li> </ul>	Tata – Steel	
	<ul style="list-style-type: none"> <li>Consumer – Ceramics</li> </ul>	Ibstock Brick Ltd Lafarge Tarmac British Ceramic Tile	Naylor Wienerberger
	<ul style="list-style-type: none"> <li>Consumer – paper</li> </ul>	Confederation of Paper Industries	
	<ul style="list-style-type: none"> <li>Consumer – Food</li> </ul>	British Sugar Nestle	British Sugar
	<ul style="list-style-type: none"> <li>Consumer – Glass</li> </ul>	St Gobain Pilkington	
	<ul style="list-style-type: none"> <li>Consumer – Other</li> </ul>	Adm Erith Bridgewater Aluminium Innovia Films Kodak University of Warwick Sibelco	Toyota Bridge North Aluminium Imerys NXP Network Rail
Customer	<ul style="list-style-type: none"> <li>Gas Shipper</li> <li>Gas Supplier</li> </ul>	GazProm Energy Total Cooperative Energy Corona Energy British Gas SSE	WinGas GDF Suez Statoil RWE E.ON
Energy Industry	<ul style="list-style-type: none"> <li>Distribution Network Operator</li> </ul>	National Grid Gas Distribution Scotia Gas Networks	Wales & West Utilities Northern Gas Networks
	<ul style="list-style-type: none"> <li>OCM Market Operator</li> </ul>	ICE Endex	
	<ul style="list-style-type: none"> <li>Industry Association</li> </ul>	Energy UK ICoSS	Joint Office UNC Modification Panel
Regulators	<ul style="list-style-type: none"> <li>UK Regulator</li> </ul>	Ofgem	
	<ul style="list-style-type: none"> <li>UK Government</li> </ul>	DECC	Crown Commercial Services