

0504 -Development of a Demand Side Response Methodology - WG4



Workgroup 4

0504 Work Group Schedules

Time / Date	Venue	Workgroup Programme
10:30 Wednesday 13 August 2014	31 Homer Road, Solihull B91 3LT	(I6) - Option Fees (KA1&I2)- Eligibility rules (KA3) - Timescales of Service -process flow- interactions between three parties (KA5) - DSR Offer posting and Acceptance processes
10:30 Wednesday 10 September 2014	31 Homer Road, Solihull, B91 3LT	(KA4 & I3) - Contractual Arrangements - (KA6) Service Fees – pricing offer (K9) – Payment, Cost, liabilities for failing to interrupt (KA8) Payment and settlement arrangements – including timescale between three parties
10:30 Monday 13 October 2014	31 Homer Road, Solihull, B91 3LT	(I4) DSR Trial (I5)OCM Platform (KA1 & I2)- Eligibility rules
10:30 Tuesday 11 November 2014	31 Homer Road, Solihull, B91 3LT	(KA7)DSR offer price feed into Cashout Review Draft Methodology and Business Rules
10:30 Wednesday 10 December 2014	31 Homer Road, Solihull, B91 3LT	Outstanding issues Review and sign off Workgroup report ?

AGENDA

Development of a DSR Methodology

- OCM Platform
- Business Rules
- Product Design
- Eligibility rules
- DSR Survey
- Volumetrics

OCM as DSR Platform



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Benefits of OCM

- Familiar to Industry and NGG for trading
 - Same Platform as supply-side offers
 - All Residual Balancing activities in the same place
 - Facilitates competition

- Cashout – Ease of inclusion

- Some functionality already exists
 - Daily product
 - Roll over of offer between periods
 - Reducing offers

- Added benefit of concentrating market liquidity in a single open and transparent market

OCM as DSR platform

- NGG have engaged with ICE Endex to discuss the DSR developments to date
- Have discussed the high level design principles and the feasibility of the OCM to provide the platform

Workgroup Feedback:

- During the workgroups to date the following was noted:
 - Request for parity where possible between “supply side” market and DSR market
 - Not as simple as a ‘every day the same’ product, we have differing profiles and therefore availability – market needs to cater for this.
 - Customers don’t want to have to submit prices regularly, “we” don’t have the resource to support this.
 - To only be utilised when the system (NG) really needs support, i.e. not to be a commercial tool for shippers.

Revised product design - Suggestion

- DSR Offers
 - may be submitted onto the market at any point
 - may only be accepted Post GDW
 - will not be visible to the market until the GDW is declared.
 - unfrozen (aligned with current OCM “supply side” market) for price and volume
- One to many Market (NG NTS being only ‘price taker’)
- Daily product with options for structure:
 - A Within Day / Day ahead structure – with carry over each day – Day not date dependant
 - A 7 day profiled offer – i.e. can submit differing values for each day of the week
- Potential for a Multi Day offer (in same form as current functionality)
- Offers accepted within Stage 1, but on the Day of entry into GDE stage 2 will be obligated to remain off until instructed back on
- Is there benefit in enabling DSR Offers to be visible prior to GDW? To NGG? Or to the market?

Platform for DSR

- How should DSR be facilitated:
 - It's own new distinct market, or:
 - Utilise an existing market, eg. the Locational Market

- Own Distinct Market
 - Market use is clear – no overlap
 - Additional screen for traders to have to monitor

Platform for DSR

- Adapting and utilising the Locational Market:
 - The Locational market could be revised to be a one to many market (NGG the single 'price taker') – Historically NGG is the only 'price taker' on the Locational platform
 - Offers could have a DSR flag to identify that it is a DSR offer and therefore eligible for acceptance post a GDW. It can therefore run along side other products available on the Locational Market
 - Currently NGG has the option, when accepting offers on the Locational market, to exclude the price from feeding into the cashout calculation – therefore the market remains suitable for constraints
 - Removes the need for additional markets to be created and monitored
 - ICE Endex are currently notified of the declaration of a GDW as this triggers prescribed activities associated with processing OTC / multiday trades.

Draft Business Rules - DSR Methodology

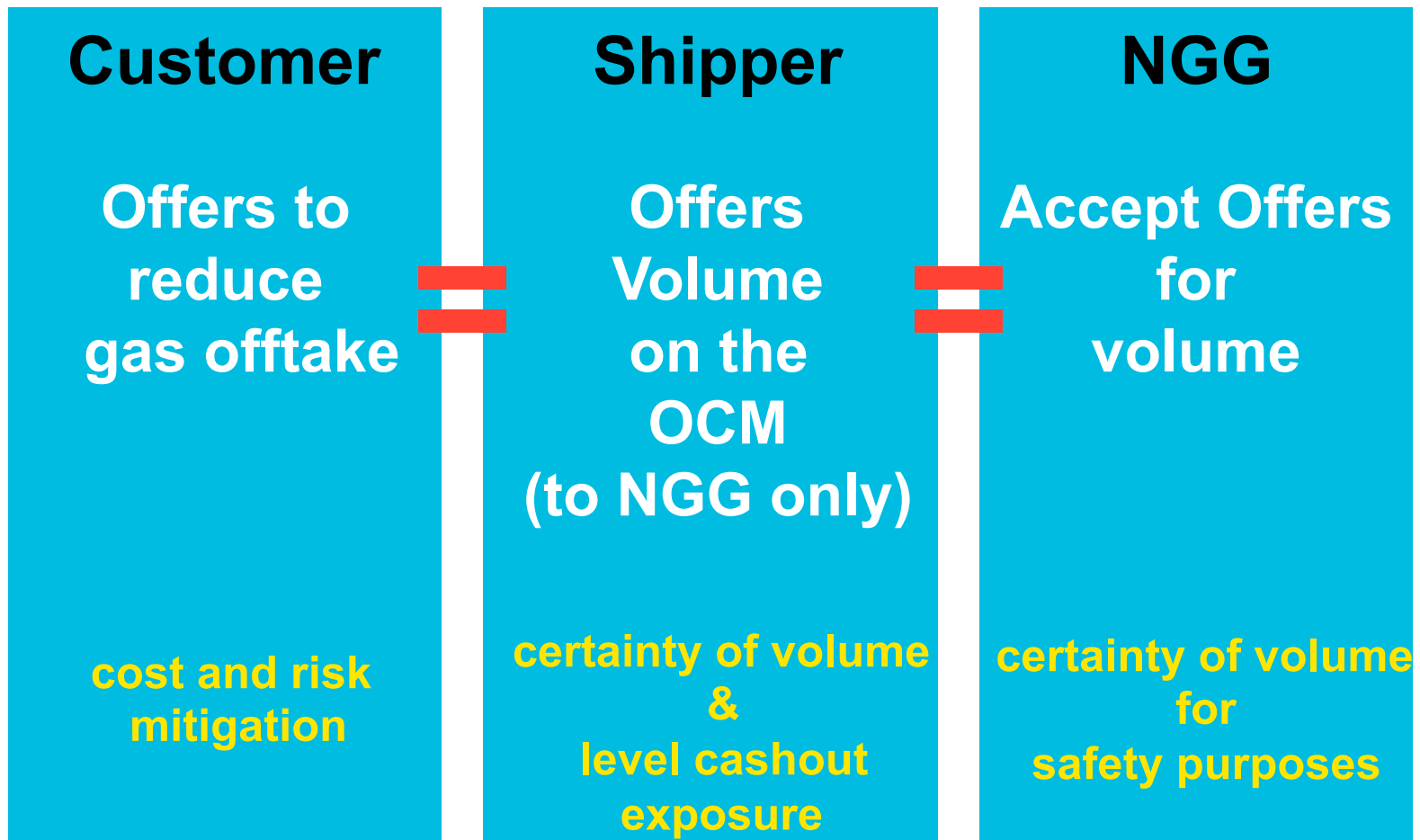


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Draft DSR Methodology BRs

- Sets out the DSR Methodology, and other contractual arrangements required to support the proposed DSR Mechanism
- NG legal department drafting the DSR Methodology using the these Business Rules
- The DSR Methodology will be provided in proposed final form to December workgroup for use in consultation –initial draft for comment next month.

DSR mechanism three way party interaction



Accepted DSR Trade price feeds into Cash-out price thereby impacting all industry participants

DSR Governance Overview

	Sets out obligations for:	Parties	Governed under Contract :
DSR Methodology	Processes associated with the operation and design of the DSR arrangement	National Grid	National Grid Transmission Transporter Licence
DSR arrangements – UNC TPD provisions	participating in the On The Day Commodity Market (OCM) based DSR Mechanism that is operated in accordance with the DSR Methodology	UNC signatories (NG, Shippers, Suppliers and the OCM Market Operator)	UNC TPD
Shipper Licence condition 15A & Gas Supply Licence condition 19D	Shipper/Supplier requirement to pass on DSR payment the End Consumer	Shippers & Gas Suppliers	Shipper and Supplier Licence
DSR Service contract and DSR Offer Notice contract provisions	Shipper/Suppliers & Customer to participate in the DSR mechanism in accordance with the DSR Methodology	Shipper/Supplier & Customer	Standardised Contract provisions either within the Shipper/Supplier and Customer Contract or an annexed contract

DSR Service Contract – Heads of Terms

**DSR Service Contract – Heads of Terms
will be comply with the provisions set out in the DSR Methodology**

a.	The DSR Service <ul style="list-style-type: none">• Details of the DSR product framework• Arrangements for Submitting/Amending/Revising DSR Offers
b.	The DSR Offer Price <ul style="list-style-type: none">• VoLL (Value of Lost Load)• Gas Price (for gas supplied by the Shipper)• Service Fees (any allowance for Shipper levied Service Fee)
c.	Information, Communication and Response; timescales and obligations <ul style="list-style-type: none">• Notification of accepted DSR offer and response to exercise
d.	Payment and Settlement Arrangements
e.	Liabilities <ul style="list-style-type: none">• Failing to reduce offtake• Errors submitting DSR Offers
f.	The DSR Offer Notice Arrangements (see next slide)

DSR Offer Notice

DSR Offer Notice will be a binding agreement between the Shipper/Supplier and Customer providing details of:

Offer Price (p/kWh)	VoLL+ Gas cost+[admin fee]
Offer Volume to be offered in respect of a tranche of DSR at the relevant site	Daily Volume (kWhs)
Lead-times for exercising DSR Offers	Lead-time for DSR plus time to notify customer
Timing of DSR Offer availability within the day	Evergreen, reducing volume over 24hrs, only available within working hours)
'Tick Down rate' Day Volume/or reducing volume over 24 hrs (where the applied rate means that the DSR Offer volume is less than the minimum bid volume the DSR Offer will longer be valid)	i.e. 1/6 , 1/12, hour
Location and Site details	Meter Id, Location etc.
DSR Contact Details	Provide 24 hour contact
Notification of revision/amending of Offer agreed timescales	Hour/Mins/Days ?
Maintenance Notification advise on scheduled maintenance	Advise
Profiling of Offer volume and/or price over a duration of days	Weekly

Product Design



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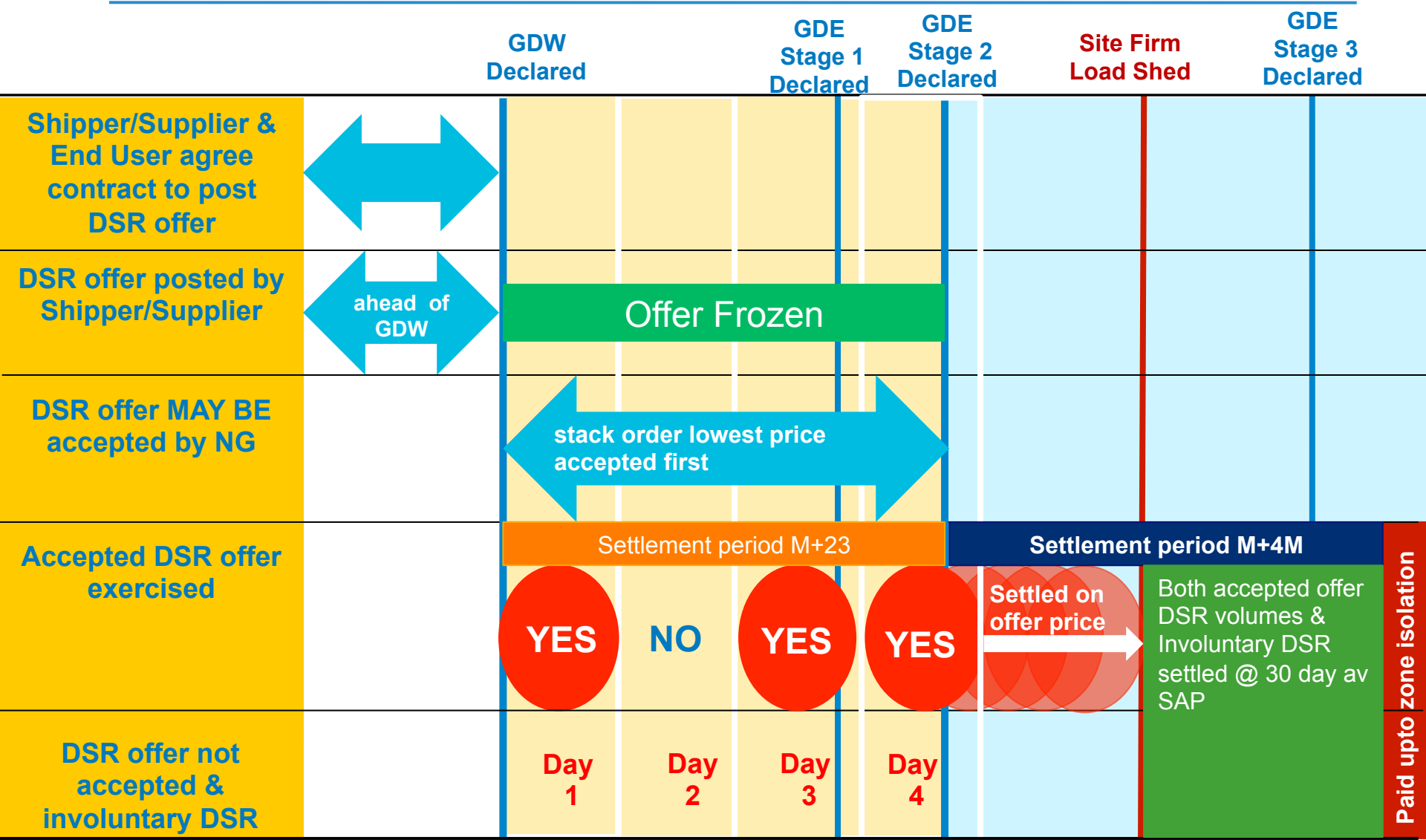
Key Features of the DSR Product

1. The DSR Offer may accepted by National Grid NTS during the DSR Period (between Declaration of a GDW and the former of the GDW being revoked or the End of GDE Stage 1).
2. The DSR Offer may be posted onto the DSR platform as a daily or multiday offer.
3. Daily Offers may be offered in weekly profiled 'strips'.
4. Daily Offers and weekly strip may can be posted ahead of the DSR period, offer can roll forward day on day or week on week (if a 'strip')
5. DSR Offer may be amended within the DSR Period

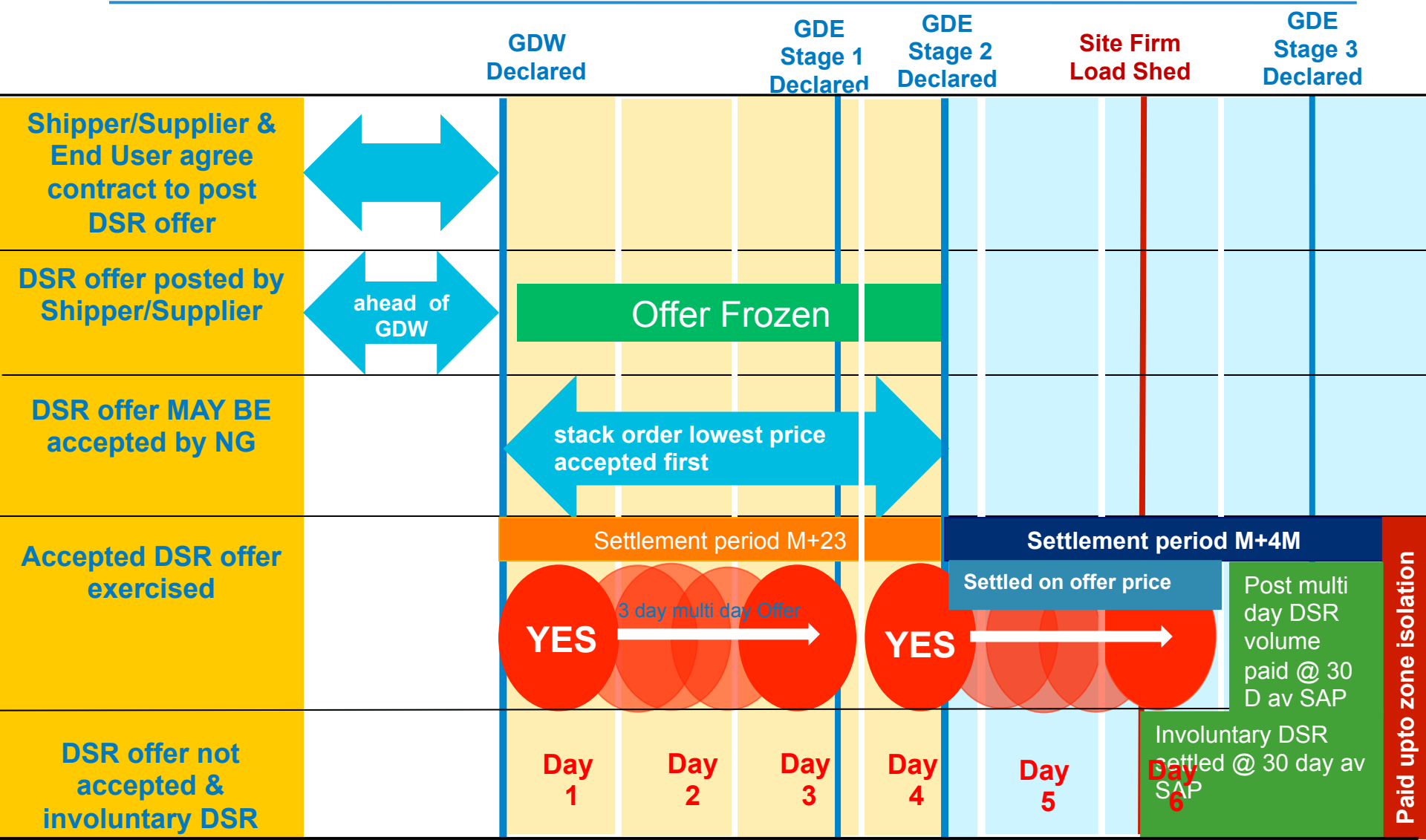
3 DSR Product Design Options

Single Day	<ul style="list-style-type: none">• Accepted and exercised for the Gas Day.• Available to accept on all subsequent up the end of GDE Stage 1.• DSR Offers accepted on the day GDE stage 2 declared remain exercised for each subsequent day until instructed back on through direction from NEC.
Multi-day	<ul style="list-style-type: none">• Accepted and exercised for a specified number of days not greater than 7.• Available to accept, when the specified days have lapsed, up to the end of GDE stage 1.• The specified days may roll into GDE Stage 2 and will be settled as agreed in the trade
Off till On	<ul style="list-style-type: none">• Once DSR Offer accepted, trade automatically re-exercised on subsequent days until NG instructs customer can come back on as part of GDE emergency arrangements. (adopted on the day a GDE stage 2 is declared)

DSR Mechanism Process Flow: Daily product -for this example relates to a single DSR Offer (1 tranche)

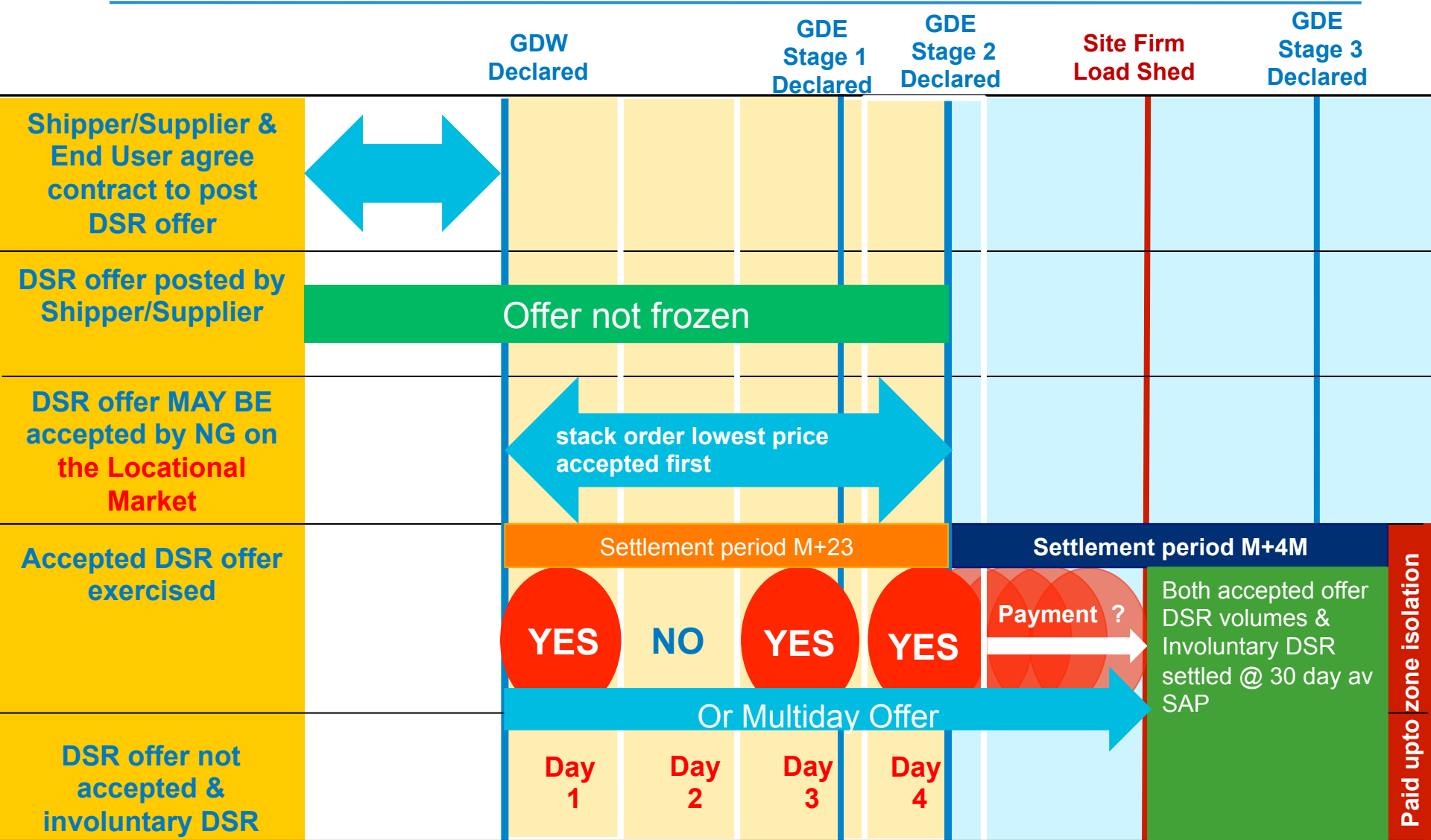


DSR Mechanism Process Flow: Multi day - example



DSR Mechanism Process Flow:

Daily product – proposed revised approach



Daily Product - Day GDE stage 2 declared

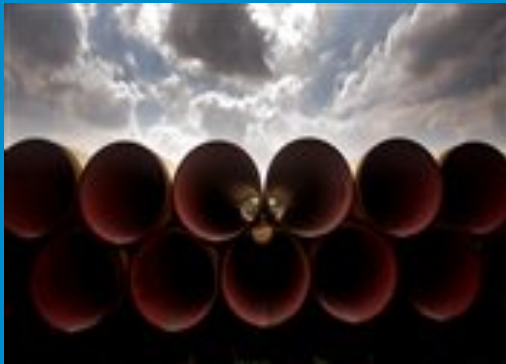
- Any DSR Offers accepted on the day a GDE Stage 2 is declared will be exercised as an 'off till on' product.
- This mitigates the potential risks associated with End Consumer resuming offtake, associated with the accepted DSR, once GDE Stage 2 is declared and NG suspends participation in the market.

Resumption of offtake, associated with an accepted DSR Offer, at GDE Stage 2 may mean that the DSR mechanism has not facilitated the delay in curtailment of critical load, and sites will be required to FLS in size order, largest first.

Revised Product Design – Implications

Multi-day product	The revised DSR product design mitigates some End Consumer concerns associated with ability to offer a volume for a period greater than one day. The End Consumer can opt to offer a tranche as a multiday product (which is a locational product)
Unfrozen offer in DSR Period	Facilitates the revision of DSR Offers (price and Volume) during the DSR period ; <ul style="list-style-type: none"> i. If required ; provides flexibility for Shippers and End Consumers to adjust offers to reflect availability on the day subsequent to the day the DSR Offer was accepted. Prices may better reflect the DSR for each day during the DSR Period. (Shipper/ End Consumer contract may state bandwidth (range) of price revisions or no price revisions) ii. Reduces NG NTS view of available DSR volume throughout the DSR period.
DSR Offer visibility pre GDW	Whilst preventing offers being taken before a GDW is declared, industry may want visibility of DSR Offers prior to GDW being declared. Visibility would: <ul style="list-style-type: none"> i. Give NG some idea of what volumes are available before a GDW is declared. ii. Give some impetus to market players to compete on price prior to GDW declaration.
Eligibility	Revised DSR Product design has less restrictions which may conflict with eligibility and maintaining market liquidity DSR licence conditions: <ul style="list-style-type: none"> i. Linked Offers, could be used to enable participants that already has a route to market, to place bid on both markets; ii. Concern that the arrangement of the ‘off till on’ product, on the day of entry into GDE Stage 2, may incentivise such participants to preference the DSR platform as opposed to the OCM. Moves DSR trade volume from a ‘many to many’ market to a market the is exclusive to NG NTS only accepting trades. iii. Should such participants be eligible to receive the same treatment as other DSR Offers accepted, they have come off in price rather than volume order too? iv. Balance to be struck ?

DSR Eligibility



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Licence Principles

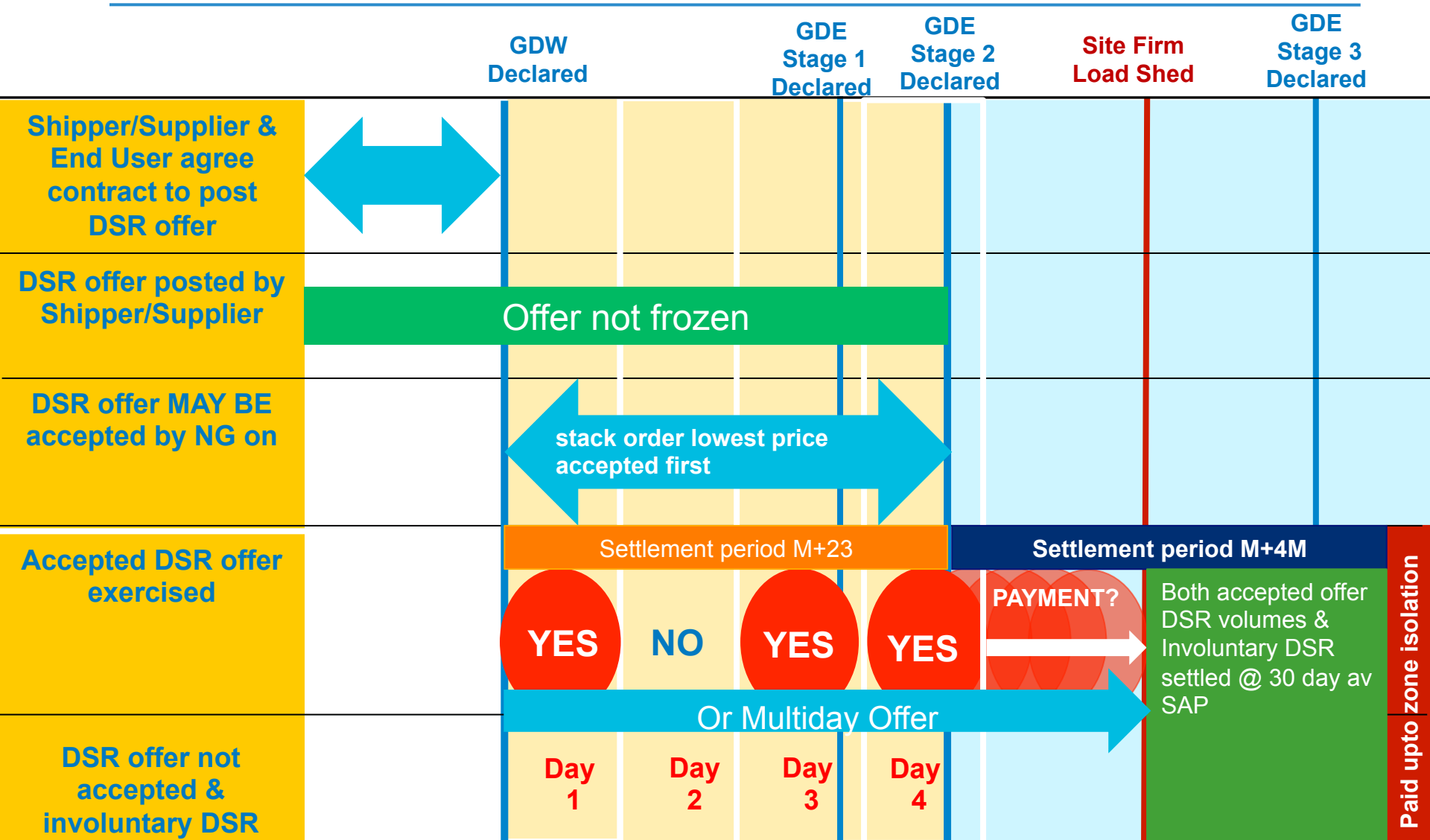
- The DSR licence obligation sets out a number of principles which any DSR methodology needs to meet.
- The principles relevant to eligibility are:
 - b) ‘Set out the criteria for determining that particular “DMC” Supply Point Components are “DMC” Supply Point Components in respect of which a party may not make Demand Side Response Offers’ - **Addressed**
 - g) ‘minimise distortions and unintended consequences on existing market arrangements and the principle of parties balancing their own positions in the wholesale gas market’ – **Need to address**

General Product Features

- Daily product (may also offer as a Multiday product)
- Price and Volume are unfrozen (consistent with the OCM)
- DSR offers are made available for each day during the DSR period (GDW – end of stage 1)
- May submit offers in strips e.g. different prices for different days
- If the site is off on the day we enter into a GDE stage 2 they will be required to stay off for the duration of the emergency and until they are directed to turn back on by the NEC

More consistency with current arrangements on the
OCM?

Eligibility issue - How should sites be paid who are required to stay off once a GDE Stage 2 is declared?



Options for payment between GDE Stage 2 and site Firm Load Shed

- 30 days average SAP
- Continue to pay sites Offer price

What are your preferences and why?

DSR Volumetrics – New Base Scenario



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Base Scenario – Highest demand day over recent years

- Looked at the actual offtake of DM sites >2mpta for 7 winter days over the past two years.
- Compared sites offtakes on these 7 days with their SOQ figures
- Created the new base scenario of 60% based on the average of the sites offtakes compared with the average SOQ figures.
- 60% of SOQ represents the highest demand day that we have seen over recent years, which was on the 23/01/2013.

Scenarios / Assumptions

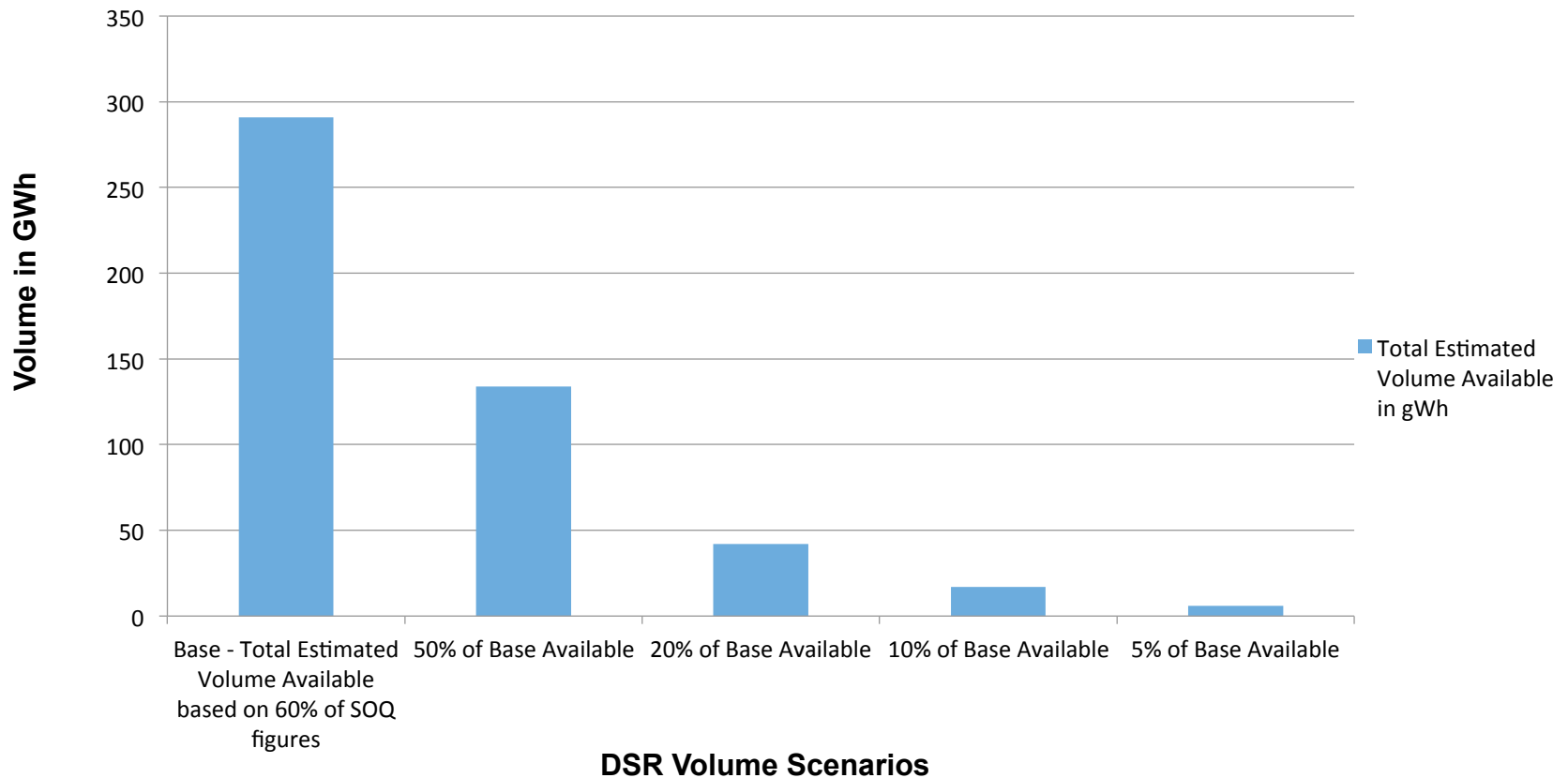
New Scenarios used:

- New Base - 60% of SOQ figures
- 50% of Base Available
- 20% of Base Available
- 10% of Base Available
- 5% of Base Available

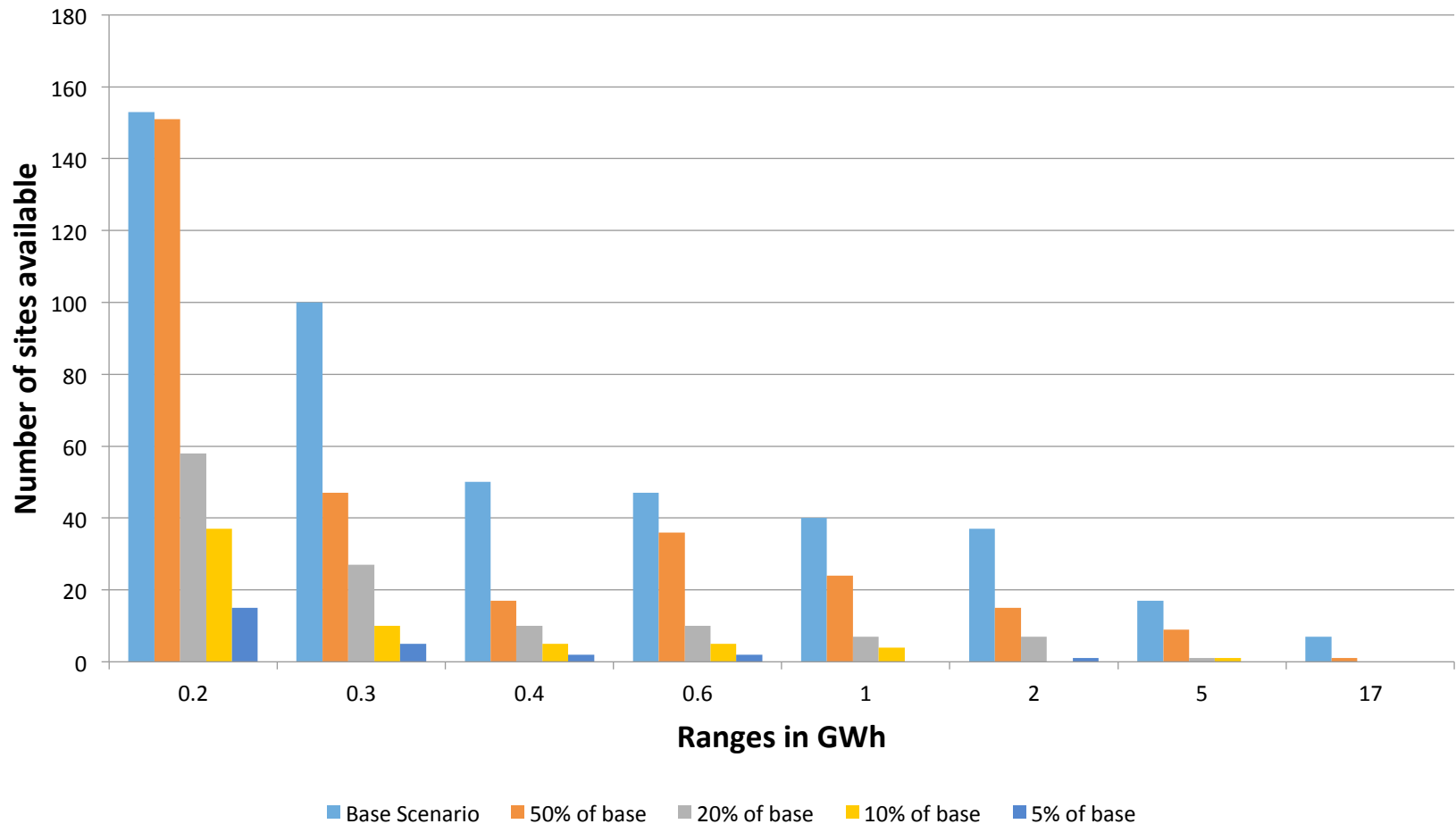
Estimated DSR Volume Availability

Scenarios	Estimated Volume Available (GWh)	Number of sites
Old Base – 50% of SOQ figures	240	423
New Base - 60% of SOQ figures	291	451
50% of Base Available	134	300
20% of Base Available	41	120
10% of Base Available	17	62
5% of Base Available	6	25

Estimated DSR Volume Availability



Potential DSR Availability (sites)



Next Steps



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Next Steps

- Issue Survey
- November agenda:
 - Review Draft Methodology Business Rules
 - (KA7)DSR offer price feed into Cashout
- (Any further views/issues/concerns you may wish to discuss further please get in touch:

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