

## **Significant Code Review Modification Proposal – Business Rules**

### **Option 2 – ‘Post Event’ Option**

#### Assumptions

- For each day within a Gas Deficit Emergency (GDE) where the GDE has progressed to Stage 2 but Firm Load Shedding has not occurred the cashout price for short shippers (System Marginal Buy Price (SMP Buy)) will be equal to the frozen cashout price set on the day the GDE entered Stage 2
- Where Firm Load Shedding has occurred Emergency Cashout charges will in the first instance be equal to the System Average Price (SAP), as calculated in line with the current UNC Q 4.2 and in the longer term will rise to VOLL once all GDE information is available.
- Cashout charges at SAP will be processed within current timescales (M+23 Energy Balancing).
- Cashout charges @ the Value of Lost Load (VOLL) and Demand Side Response (DSR) payments will be processed offline and included in an Energy Balancing Invoice adjustment approx 3-4 months after GDE
- Shippers will pass DSR Payments onto relevant supplier who will then in turn pass on to consumers (assumes licence changes to facilitate this)
- Post Oct 2012 GDE stages (as proposed in Modification 0412 – ‘Changes to the Stages of Emergency Resulting from Changes introduced by Exit Reform) are used to reference GDE stages within these business rules.
- Daily Metered (DM) and Large Non Daily Metered (NDM) sites will receive DSR Payments where instructed to interrupt during GDE Stage 2 firm load shed. Such sites will receive DSR payment for each day they are interrupted. Unless they are within the area of a Local Distribution Zone (LDZ) that is subject to network isolation
- Small NDMs (AQ <73,200kWh p.a) will receive fixed payment based on a fixed assumed interruption volume (currently 1.6 Therms)
- Network isolation = NDM <73,200kWh p.a. interruption
- Emergency Curtailment Quantity (ECQ) process remains in place
- Overall timescales of process will match PEC process to ensure process is completed within a defined timescale.
- DSR Payments will continue to be made for each day where a relevant site is NOT within the area of an LDZ that is subject to Network Isolation.

#### Issues

- If we update market length for purposes of imbalance charges, DSR payments and Post Emergency Claims payments should we also apply revised Users Daily Quantity Output (UDQO) to Balancing Neutrality Charges? See section 9

## Business Rules

These business rules explain the proposed changes to the Uniform Network Code as stated within Ofgem's Draft Policy Decision on the Gas Security of Supply – Significant Code Review.

### 1. Overview

In the event of a GDE being declared by the National Emergency Coordinator (NEC) the Balancing Neutrality Charges will reflect that;

- 1.1. Prior to Firm Load Shedding the System Marginal Buy Price (SMP Buy) for the day will be the frozen cashout prices as set on the first day that GDE entered Stage 2 (in line with current UNC Q 4.2)
- 1.2. Once the GDE has progressed to Firm Load Shedding within Stage 2 (and above) the following shall apply;
  - 1.2.1. for each day within a GDE the SMP Buy price will be equal to [frozen SAP]
  - 1.2.2. For each GDE day each user shall continue to be make or receive payments for Balancing Neutrality Charges, these charges may include any Market Balancing Actions, ECQ etc taken during the GDE day
  - 1.2.3. following the cessation of the GDE and following receipt of Network isolation data [National Grid] will calculate each Users Emergency Daily Imbalance for each day of the GDE
  - 1.2.4. **Users Emergency Daily Imbalance** will be calculated by taking a Users Daily Imbalance and also accounting for amendments to each Users UDQO which may have resulted from the Network isolation during the GDE
  - 1.2.5. Following the calculation of each **Users Emergency Daily Imbalance**, [National Grid] will calculate an **Emergency Daily Imbalance Charge** for each User and issue as part of an [Energy Balancing Adjustment]
  - 1.2.6. Each User will receive a **Demand Side Response Payment** in relation its Supply Points interrupted during the Gas Deficit Emergency.
  - 1.2.7. For the purposes of these business rules the VOLL is equivalent to 68.2428 pence per kWh [£20/Therm]

### 2. Imbalance Charges applicable in the event of a Gas Deficit Emergency

- 2.1. Where the NEC has declared that a GDE has existed at Stage 2 but Firm Load Shedding has not yet occurred, the SMP Buy price shall be the 'frozen' SMP Buy price as set on the first day of the GDE entering Stage 2 and as defined within UNC Section Q Paragraph 4.2
- 2.2. Where the NEC has declared that a GDE has escalated to Firm Load Shedding within Stage 2 (and above), the Imbalance Charges for that day shall be calculated and invoiced in two stages as follows:
  - 2.2.1. In the initial instance (included within the next Energy Balancing Invoice submitted after the GDE) System Marginal Sell and Buy Prices respectively for that GDE day shall be equal to [*the frozen System*

*Average Price as set on the first day of the GDE entering Stage 2 in line with UNC Section Q paragraph 4.2.4]*

- 2.2.2. Following the calculation of each User's Emergency Daily Imbalance, as described in section [7] the Emergency Imbalance Charges shall be calculated as per the following;
- (a) Where for a day, User's Daily Imbalance was [zero] and the User's Emergency Daily Imbalance is subsequently found to be a negative imbalance the User shall pay [National Grid] an Emergency Imbalance Charge calculated as the Emergency Daily Imbalance multiplied by VOLL
  - (b) Where for a day, a User's Daily Imbalance is negative and the User's Emergency Daily Imbalance is subsequently found to be negative the User shall pay [National Grid] an Emergency Imbalance Charge calculated as the aggregate of the Emergency Daily Imbalance multiplied by VOLL less the Daily Imbalance multiplied by the frozen SAP price
  - (c) Where for a day, a User's Daily Imbalance is positive, but the User's Emergency Daily Imbalance is subsequently found to be negative the User shall pay [National Grid] an Emergency Imbalance Charge calculated as the aggregate of the Daily Imbalance multiplied by frozen SAP and the Emergency Daily Imbalance multiplied by VOLL, or
  - (d) Where for a day, a User's Emergency Daily Imbalance is positive and greater than its positive Daily Imbalance, [National Grid] shall pay the User the difference between the User's Emergency Daily Imbalance multiplied by frozen SAP and the User's Daily Imbalance multiplied by frozen SAP
- 2.2.3. For the avoidance of doubt these business rules does not seek to amend the System Marginal Sell Price for a day within a GDE as calculated in line with UNC Section Q 4.2.4 i.e. at SAP.

### 3. Demand Side Response Payments

- 3.1. In respect of each GDE day [National Grid] will pay each User a **Demand Side Response Payment** for all [Firm] Supply Points interrupted during GDE Stage 2 and 3 in line with the following;
- 3.1.1. For each day within Stage 2 of a GDE, where a User's [Firm] Supply Point is interrupted as part of Firm Load Shedding, the User will receive a Demand Side Response Payment for each relevant Supply Point equivalent to the relevant Emergency Interruption Volume for that Supply Point multiplied by VOLL
  - 3.1.2. For the avoidance of doubt the applicable Supply Points described in paragraph 3.1.1 are [Interruptible sites,] DM Supply Points which include VLDMC Supply Point Components and Large NDM Firm Supply Points, other than Priority Supply Points [*Section Q wording*]
  - 3.1.3. for each [Firm] Supply Point interrupted within stage 3 of a GDE, as part of Network isolation, a User will receive a Demand Side Response Payment for each relevant Supply Point equivalent to the Emergency Interruption Volume for that Supply Point for one day multiplied by VOLL

- 3.1.4. For the avoidance of doubt;
  - a) Demand Side Response Payments calculated in accordance with paragraph 3.1.1 shall continue to apply until such time as the relevant site is subject to an LDZ Network isolation or until gas supply is restored to the relevant site. Where Network Isolation has occurred 3.1.5 shall apply.
  - b) For the purpose of sites which are not affected by Network isolation DSR payments will continue to apply in accordance with paragraph 3.1.1.
- 3.1.5. The Emergency Interruption Volume for a Supply Point Component shall be the relevant volume of gas in kWh determined by [National Grid] as having being interrupted during a day within stage 2 or 3 of a GDE as follows;
4. The **Emergency Interruption Volume** for a Supply Point Component shall be the relevant volume of gas in kWh determined by [[National Grid]] as having being interrupted during a day within stage 2 or 3 of a GDE as follows;
  - 4.1. the Emergency Interruption Volume for [Interruptible sites and] DM Supply Points, which include VLDMC Supply Point Components, Large NDM Firm Supply Points other than Priority Supply Points will be calculated in line with the 'Emergency Interruption Volume Methodology' [*this could be added to UNC Section V12 -GENERAL PROVISIONS RELATING TO UNC RELATED DOCUMENTS with calculation in line with the Emergency Curtailment Quantity process*] for each day [*assumes Large NDM volume calculation will be included within Emergency Interruption Volume Methodology*]
  - 4.2. the Emergency Interruption Volume for NDM Firm Supply Points (other than large NDM site and including for the avoidance of doubt Supply Points whose Annual Quantities do not exceed 73,200 kWh (2,500 therms)) and Priority Supply Points [shall be 47kWh ( 1.6 therms)] for each day
  - 4.3. [National Grid] will determine each User's aggregate Emergency Interruption Volume for all Supply Points across all days of the GDE within [25 business days – see PEC process] following the day on which the NEC notifies the cessation of the GDE
5. Managing an imbalance between monies recovered by Emergency Imbalance Charges & Demand Side Response Payments
  - 5.1. [National Grid] will remain neutral to all Balancing Neutrality Charges and accordingly any differences in the aggregate of Daily Imbalance Charges calculated in line with paragraph 2 and the aggregate of the Demand Side Response Payments as calculated in line with paragraph 3 will be managed as per the following;
  - 5.2. The “**Demand Side Response Payment Imbalance**” is calculated as the aggregate of the Emergency Imbalance Charges payable to [National Grid] by Users less the aggregate of the Demand Side Response Payments payable by [National Grid] to relevant Users for a day
  - 5.3. The “**Unit Demand Side Response Payment Imbalance**” shall be calculated in line with the following;

- 5.3.1. Where the Demand Side Response Payment Imbalance is positive the Unit Demand Side Response Payment Imbalance is the sum of the Demand Side Response Payment Imbalance divided by the aggregate of all relevant Users Daily Quantity Input (UDQI) and relevant Users Daily Quantity Output (UDQO) [revised by Users Emergency Daily Imbalance] for all Users, or
  - 5.3.2. Where the Demand Side Response Payment Imbalance is negative the Unit Demand Side Response Payment Imbalance is the sum of the Demand Side Response Payment Imbalance divided by the aggregate of all of all relevant UDQIs and relevant UDQOs [revised by Users Emergency Daily Imbalance] for all Users that have a negative Emergency Daily Imbalance
  - 5.4. For each relevant User the **Demand Side Response Payment Imbalance Charge** will be calculated in line with the following;
    - 5.4.1. Where the Demand Side Response Payment Imbalance is positive, [National Grid] will pay all a Demand Side Response Payment Imbalance Charge calculated as the Unit Demand Side Response Payment Imbalance (as calculated in line with 5.3.1 above) multiplied by the sum of the User's relevant UDQI and relevant UDQO
    - 5.4.2. Where the Demand Side Response Payment Imbalance is negative, Users with a negative Emergency Daily Imbalance shall pay [National Grid] a Demand Side Response Payment Imbalance Charge calculated as the Unit Demand Side Response Payment Imbalance (as calculated in line with 5.3.2. above) multiplied by the sum of the User's relevant UDQI and relevant UDQO
6. Invoicing and Payment
- 6.1.1. The Demand Side Reduction Payments, Emergency Imbalance Charges and any relevant Demand Side Response Payment Imbalance Charges will be invoiced within a [Energy Balancing Adjustment Invoice]
  - 6.1.2. [National Grid] will submit an Energy Balancing Adjustment Invoice to each relevant User within [x business days] following the calculation of;
    - (a) the Demand Side Response Payments,
    - (b) Emergency Imbalance Charges; and
    - (c) Relevant Demand Side Response Payment Imbalance Charges.
  - 6.1.3. Payment timescales for the [Energy Balancing Adjustment Invoice] shall be in accordance with [UNC TPD S xx (12 days)]
  - 6.1.4. For the avoidance of doubt the Demand Side Reduction Payments, Emergency Imbalance Charges and any relevant Demand Side Response Payment Imbalance Charges will not be invoiced within the same timescales as the Daily Imbalance Charges described in paragraph [2.1.1]

7. Reconciliation Invoice

- 7.1. The reconciliation of System Clearing Contracts, in line with UNC TPD Section F 5 – Reconciliation Clearing, will remain unaffected by these Business Rules.
8. Network isolation information
  - 8.1. In the event of a Network isolation occurring within an LDZ as part of a GDE the relevant Gas Transporter shall determine each NDM property affected by the Network isolation for each day of the GDE and provide the following details;
    - 8.1.1. Meter Point Reference Number
    - 8.1.2. Postcode
    - 8.1.3. Supply Offtake Quantity
    - 8.1.4. Annual Quantity
  - 8.2. No later than [x] business days following the day on which the NEC declared the end of a GDE all Gas Transporters will confirm to [National Grid] whether or not Network isolation occurred within one or more of its Local Distribution Zones and provide accompanying Network isolation information as stated in section 7.1 above
  - 8.3. Upon the receipt of the information described in section 7.1 and 7.2, [National Grid] will calculate each **Users Emergency UDQO** and Emergency Daily Imbalance for each day of the GDE
9. (Optional) Interaction with Post Emergency Claims process
  - 9.1. Subject to Network isolation occurring within the GDE, the Post Emergency Claims process will use each Users Emergency Daily Imbalance [as calculated in line with paragraph 7] rather than the Daily Imbalance
10. (Optional) Interaction with Balancing Neutrality Charges
  - 10.1. Subject to Network isolation occurring within the GDE, the Post Emergency Claims process will use each Users Emergency UDQO and Emergency Daily Imbalance [as calculated in line with paragraph 7] rather than the Daily Imbalance
11. [Hold for process for interruptible sites interrupted as part of Firm Load Shedding and / or Network isolation]