

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

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### **Near Time**

#### 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
- For each day within a GDE where Firm Load Shedding has occurred, with the possible exception of Day 1 where frozen SMP Buy may be greater than the Value Of Lost Load (VoLL), the SMP Buy will be at the VoLL
- Where a GDE has begun and finished within the same calendar month all charges described within these business rules shall be included in M+23 Energy Balancing Invoice. If the GDE spans across two calendar months the daily charges described within these business rules shall be included within the relevant M+23 Energy Balancing Invoice.
- Funds recovered via the above will be used to pay long shippers, market balancing actions and other Balancing Neutrality Charges as under the current arrangements. Residual funds will flow into a new account which will be used to fund Demand Side Response (DSR) Payments (rather than being smeared back to Users before these payments have been made)
- DSR Payments will be made once sufficient funds have been recovered from the relevant Users.
- Shippers will pass DSR Payments onto relevant suppliers (within X days) who will then in turn credit consumers' accounts (within Y days). (This will be covered through licence rather than code changes.) If customers have changed suppliers in the meantime, [it would be the shipper and supplier at the time xoserve calculates the payment that would receive the money and pass it on].
- 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 (i.e. those with an annual consumption above 732,000 kWh), other than those on interruptible contracts, will receive DSR Payments where instructed to interrupt during GDE Stage 2 firm load shedding. 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.
- Emergency Curtailment Quantity (ECQ) and the associated methodology to calculate volumes will remain as-is for DM sites and will also be extended to large NDM sites with AMRs and will be used to calculate the volume for which DSR payments should be paid within Stage 2 Firm Load Shedding.

- If sites with commercially interruptible contracts are interrupted by their transporter following a NEC instruction, these sites would receive the contractually agreed exercise price from their supplier. The supplier would not be ECQ'd for those volumes and would therefore not receive the System Average Price of the last 30 days but will retain any volume for the purposes of their imbalance position. To this end, suppliers will be required to provide information on interruptible contracts to NGG. Contracts for commercial interruption will not be allowed for NDM sites without an ability to verify that consumption has been reduced (ie AMRs).
- Small NDMs (Annual Quantity <732,000kWh p.a) will receive payments [based on the SOQ of that Supply Point]. This volume will also be used to calculate shippers' imbalances. (To ensure that shippers get paid for the gas they bring onto the system, shippers would receive previous 30 day SAP where they are balanced but their NDM site has been isolated).
- [based on the SOQ of that Supply Point] is shorthand for stating that the NDM demand will not be the allocated / smeared amount as generated by UK Link but rather a value which better reflects the gas that has been consumed by sites not isolated or the gas that would have been consumed by sites affected by Network isolation.
- Where Network Isolation has occurred interrupted sites within the affected area will receive DSR payments for Day 1 only of Network Isolation. DSR Payments will continue to be made for each day where a relevant site (that is interrupted) is NOT within the area of an LDZ that is subject to Network Isolation.
- Cash-out payments will continue to be made following Day 1 of Network Isolation, but demand forecasts for LDZs where Network Isolation has occurred will reflect the isolated volumes.
- Where, following Stage 3 Network isolation, the number of Supply Points affected by Network isolation becomes clearer a process will allow for the amended list of Supply Points to receive DSR payments.
- For the purposes of calculating imbalances, if large NDM sites are asked to reduce or curtail the flow of gas to the site, the default assumption is that the customer obliges unless the supplier or transporter can prove that the site has not interrupted. The relevant volumes associated with the turn down will be calculated using the ECQ methodology (which absent of an offtake profile notice (OPN) would use demand at D-7 or revert to SOQ).
- For the purposes of calculating DSR payments if large NDM sites are asked to reduce or curtail the flow of gas to the site, the default assumption is that the customer has not reduced the flow of gas unless the customer can prove that the site has been interrupted. The relevant volumes associated with the turn down will be calculated using the ECQ methodology (which absent of an offtake profile notice (OPN) would use demand at D-7 or revert to SOQ).
- For the purposes of these business rules VoLL is equivalent to 68.2428 pence per kWh [£20/Therm]

## 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 (stage 2 and above) being declared by the National Emergency Coordinator (NEC) the following shall apply;

- 1.1. Prior to Firm Load Shedding the 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. SMP Buy for Day 1 will be equivalent to or greater than Value of Lost Load (VoLL)
  - 1.2.2. SMP Buy for Day 2 onwards of Firm Load shedding will be equal to VoLL
  - 1.2.3. Imbalance Charges paid by Users to [National Grid] will flow into Neutrality (as is). Once payments from Neutrality have been made (to long shippers and Balancing Neutrality Charges) the residual balance from the Imbalance Charges will move into a separate Emergency Neutrality Account rather than smeared to all Users based on throughput. DSR Payments shall be made from the Emergency Neutrality Account via a later Energy Balancing Invoice.
  - 1.2.4. Subject to the payments into and out of the Emergency Neutrality Account and the aggregate of all DSR Payments;
    - (a) Where there are insufficient funds within the Emergency Neutrality Account to fund DSR payments, Users with a negative Daily Imbalance shall pay an Emergency Neutrality Account Imbalance Charge to ensure all DSR Payments can be made in full, or
    - (b) Where there is a surplus of funds remaining within the Emergency Neutrality Account following the payment of DSR Payments this surplus will be smeared back to all Users through neutrality ]
  - 1.2.5. Payment of Balancing Neutrality Charges from Users to National Grid for Market Balancing Actions etc will remain as is
  - 1.2.6. Should the GDE progress to Network isolation Stage 3, for the purposes of deriving a shippers Daily Imbalance, the NDM allocation for all smaller NDM supply points within the affected LDZ shall be [based on the SOQ of that Supply Point]
  - 1.2.7. [Where possible, NDM Forecasts shall also be updated to reflect the values described in paragraph 1.2.4 above]
  - 1.2.8. Save for Interruptible Supply Points, where a User's Supply Point has been interrupted during Stage 2 or Stage 3 within a GDE, [National Grid] will, subject to sufficient funds being paid into the Emergency Neutrality Account, pay that User a Demand Side Response Payment in relation to each relevant Supply Point.
  - 1.2.9. Save for Interruptible Supply Points, the ECQ process shall continue as-is i.e. Users with DM sites interrupted as part of Firm Load

Shedding will receive 30 Day average SAP for gas multiplied by the Emergency Curtailment Quantity. For UDQO purposes the DM Demand shall also be assumed to be the Emergency Curtailment Quantity.

- 1.2.10. Where an Interruptible Supply Point is interrupted as part of Firm Load Shedding (Stage 2), the ECQ process will not apply. Instead, where the Interruptible Supply Point is interrupted, the User will not receive any payment but the DM demand will be reduced in line with its Interruption Volume.
- 1.3. For the purposes of these business rules VoLL is equivalent to 68.2428 pence per kWh [£20/Therm]
2. Imbalance Charges applicable in the event of a GDE
  - 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 shall be the 'frozen' SMP Buy 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 SMP Buy for that day shall be the greater of;
    - 2.2.1. The price as described in paragraph 2.1 above, or
    - 2.2.2. VOLL as described in paragraph 1.2 above
  - 2.3. Following Day 1 of Firm Load Shedding the SMP Buy shall be fixed at VoLL.
  - 2.4. For the avoidance of doubt, these business rules do not seek to amend the determination of the System Marginal Sell Price in a GDE as per UNC Section Q 4.2.4 (e.g. SAP).
3. Demand Side Response Payments
  - 3.1. [National Grid] will pay each User a Demand Side Response Payment for each Supply Point interrupted during Stage 2 and 3 of a GDE in line with the following;
    - 3.1.1. Subject to paragraph [3.1.6], for each day within Stage 2 and above 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 Firm DM Supply Points which include VLDMC Supply Point Components and Large NDM Firm Supply Points, other than Priority Supply Points
    - 3.1.3. For the avoidance of doubt, subject to paragraph [3.1.6], for each day within Stage 2 and above of a GDE, where a User's Interruptible Supply Point is interrupted as part of Firm Load Shedding, the User will receive no Demand Side Response Payment
    - 3.1.4. For each Smaller NDM Firm Supply Point (AQ < 732,000kWh) interrupted within stage 3 of a GDE, as part of Network isolation and

identified in accordance with Section [6] of these Business Rules, 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

- 3.1.5. Sites interrupted within stage 3 of a GDE (Network isolation) other than those identified in paragraph 3.1.2 will be identified in line with the process described in Section [6] of these business rules
  - 3.1.6. No Demand Side Response Payment shall be paid to User's for Interruption or isolation of its Firm or Interruptible Supply Points where these Supply Points were in the area affected by Network isolation and identified in line with Section [6] of these Business Rules following Day 1 of that Network isolation.
  - 3.2. the Emergency Interruption Volume for all Supply Points listed in paragraphs [3.1.2, 3.1.3, and 3.1.4] will be calculated in line with the "**Emergency Interruption Volume Methodology**" for each day
  - 3.3. The Emergency Interruption Volume for Interruptible Supply Points shall be equal to the Daily Interruption Volume as stated in Section 10 of these Business Rules
  - 3.4. [National Grid] will determine each User's aggregate Emergency Interruption Volume for all Supply Points across all days of the GDE in accordance with the Emergency Interruption Volume Methodology to calculate each Users Demand Side Response Payments
  - 3.5. [National Grid] will validate that all Supply Points described in paragraph [3.1.2] have reduced or curtailed the flow of gas to the level determined in accordance with paragraph [3.2]
  - 3.6. Where a Supply Point has subsequently found to have offaken a greater flow of gas than determined in accordance with paragraph [3.2], e.g. the Emergency Interruption Volume is found to have been overstated, the Emergency Interruption Volume for that Supply Point shall be amended accordingly
  - 3.7. To support the validation process described in paragraph [3.5] Large NDM Supply Points who participate in Stage 2 Firm Load Shedding shall provide information to prove that the flow of gas to the Supply Point was reduced or curtailed to the level determined in accordance with paragraph [3.2]. *[This will be submission of a 'DM' read for the day and on the following day as part of DM Elective (AMR) regime]*
4. Managing an imbalance within Emergency Neutrality Account;
    - 4.1. [National Grid] will remain neutral to the Emergency Neutrality Account and as such any imbalance within this account will be managed as per the following;
    - 4.2. An "**Emergency Neutrality Account Imbalance**" is calculated as the aggregate Demand Side Response Payments payable by [National Grid] to all Users for a day as calculated in line with paragraphs 3 and 6 less sum of the Imbalance Charges payable to [National Grid] by Users calculated in line with paragraph 2 less payments from Neutrality e.g. payments to Users with a positive Daily Imbalance, payments to National Grid for Market Balancing Actions etc

- 4.3. The “**Unit Emergency Neutrality Account Imbalance**” shall be calculated in line with the following;
  - 4.3.1. Where the Emergency Neutrality Account Imbalance is positive the Unit Emergency Neutrality Account Imbalance is the sum of the Unit Emergency Neutrality Account Imbalance divided by the aggregate of all relevant Users Daily Quantity Input (UDQI) and relevant Users Daily Quantity Output (UDQO) for all Users, or
  - 4.3.2. Where the Emergency Neutrality Account Imbalance is negative the Unit Emergency Neutrality Account Imbalance is the sum of the Emergency Neutrality Account Imbalance divided by the aggregate of the Daily Imbalances of all Users who have a negative Daily Imbalance
- 4.4. For each relevant User the Emergency Neutrality Account Imbalance Charge will be calculated in line with the following;
  - 4.4.1. Where the Emergency Neutrality Account Imbalance is positive, [National Grid] shall pay Users an **Emergency Neutrality Account Imbalance Charge** calculated as the Unit Emergency Neutrality Account Imbalance, as calculated in line with paragraph [4.3.1] above, multiplied by the sum of the User’s relevant UDQI and relevant UDQO
  - 4.4.2. Where the Emergency Neutrality Account Imbalance is negative, Users with a negative Emergency Daily Imbalance will pay [National Grid] an **Emergency Neutrality Account Imbalance Charge** calculated as the Unit Emergency Neutrality Account Imbalance, as calculated in line with paragraph [4.3.2] above multiplied by the User’s Daily Imbalance
5. Settlement Timing
  - 5.1. Imbalance Charges and Emergency Neutrality Account Imbalance Charges will be included within the Energy Balancing Invoice following the GDE
  - 5.2. Subject to the Emergency Neutrality Account having sufficient cleared funds to pay all Demand Side Response Payments, the Demand Side Response Payments shall be included in a subsequent Energy Balancing Invoice. *(likely to be 3<sup>rd</sup> Energy Balancing Invoice following the GDE)*
  - 5.3. If a GDE spans across two calendar months, the Imbalance Charges calculated in paragraph 2 shall be included within the relevant (separate) Energy Balancing Invoice and not invoiced together. *(Should DSR Payments be made together or in separate invoices as well?)*
  - 5.4. Shippers will be obliged to pass the relevant Demand Side Response payments on to their suppliers (within X days), which in turn will be obliged to pass these on to customers (within Y days), eg through a rebate on the next energy bill. This would be enforced through licence conditions.
6. Network Isolation Process
  - 6.1. This paragraph explains the process to identify the smaller NDM supply points interrupted in the event of a GDE escalating to Network isolation as part of stage 3

- 6.2. 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 identify for each property;
    - 6.2.1. Meter Point Reference Number
    - 6.2.2. Postcode
    - 6.2.3. [Supply Offtake Quantity] (*this may be provided by Xoserve*)
    - 6.2.4. ]Annual Quantity] (*this may be provided by Xoserve*)
  - 6.3. No later than [5] business days following a GDE day all Gas Transporters will confirm to [National Grid] whether or not Network isolation occurred within one or more of its Local Distribution Zones and, if Network isolation has occurred, provide the accompanying Network isolation information as stated in paragraph [6.2] above
  - 6.4. If, following the submission of the information described in paragraph [6.2], the relevant Transporter is aware of an amendment to this information the relevant Transporter shall submit an amended version of this information to [National Grid] as soon as is reasonably practical.
  - 6.5. [National Grid] will administer a reconciliation process to pay the relevant Demand Side Response Payment to all User's identified in any amended information provided in line with paragraph [6.4] as follows;
    - 6.5.1. Where, [National Grid] has yet to submit the Energy Balancing Invoice containing all Demand Side Response Payments to Users, [National Grid] will amend and if necessary re-submit the Demand Side Response Payments and Emergency Neutrality Account Imbalance Charges accordingly, or
    - 6.5.2. Where, [National Grid] has submitted the Energy Balancing Invoice containing all Demand Side Response Payments to Users, [National Grid] will calculate the relevant Demand Side Response Payment due and where additional Demand Side Response Payments are required to be paid to a User, these payments shall be funded from Neutrality
  - 6.6. If [National Grid] is unable to process the relevant DSR payments before submitting the 'final' Energy Balancing Invoice as described in paragraphs [5.1 and 5.2], these payments will be processed within a proceeding Energy Balancing Invoice and shall be funded by Neutrality.
  - 6.7. [National Grid] will, where a User has received a Demand Side Response Payment for one or more of its smaller NDM Supply Points, provide to each User the relevant supporting information to support the onward payment of the Demand Side Response Payment to the end Consumer. This supporting information will include the information described in 6.2.1 and 6.2.2.
7. Emergency NDM Allocation
    - 7.1. Where Network isolation has occurred within an LDZ, the NDM allocation process will not accurately reflect the energy offtaken by the remaining 'live' sites as the current process will still allocate energy to the isolated sites. In such cases the following rules shall apply;
    - 7.2. Where Network isolation has occurred within an LDZ as part of Stage 3 of a GDE, the "**NDM GDE Demand**" for each smaller NDM supply point (AQ< 732,000kWh p.a.) shall be [based on the SOQ of that Supply Point]

- 7.3. For the avoidance of doubt, the NDM GDE Demand for each Smaller NDM Supply Point shall be equal to the Emergency Interruption Volume for that Supply Point
8. Network Isolation Payment
  - 8.1. Subject to a User's Daily Imbalance being balanced or positive, [National Grid] will pay a User a "**Network Isolation Payment**" for each Smaller NDM Supply Point interrupted as part of Network isolation equal to the Emergency Interruption Volume for that Supply Point multiplied by [30 day rolling average SAP]
  - 8.2. Each Network Isolation Payment shall be treated as a Market Balancing Action
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 Daily Imbalance including any relevant NDM GDE Demand as calculated in line with paragraph [7] above
10. Interruptible Supply Points interrupted as part of Firm Load Shedding
  - 10.1. Users shall, where a commercial Interruption contract has been agreed between the User and end consumer, submit to [National Grid] as soon as is reasonably practical the following information relating to the relevant Supply Point
    - 10.1.1. The quantity of gas calculated as available for reduction or discontinuance per day "Daily Interruption Volume" (*need some rules around what this can be e.g. no more than SOQ etc*)
  - 10.2. [National Grid] will maintain a register of all Interruptible Supply Points submitted to it by Users in accordance with paragraph 10.1 submitted to it by Users in accordance with paragraph 10.1
  - 10.3. Where a Interruptible Supply Point is interrupted as part of Firm Load Shedding, the relevant User shall receive no Demand Side Response Payment however the ECQ methodology will not apply for this Supply Point and as such the DM demand shall be assumed to have been reduced by the Daily Interruption Volume