

Modification Report
Emergency Curtailment Quantity (ECQ) Methodology Statement
Modification Reference Number 0054

Version .

This Modification Report is made pursuant to Rule 7.3 of the Modification Rules and follows the format required under Rule 9.6.

1. The Modification Proposal

Proposal 0054 was as follows:

“Defined Terms. Where UNC defined terms are included within this Proposal the terms shall take the meaning as defined within the UNC. Key UNC defined terms are highlighted by an asterisk (). This Proposal, as with all Proposals, should be read in conjunction with the prevailing UNC.*

This Proposal seeks to:

Define the Emergency Curtailment Quantity* (ECQ) Methodology Statement, published via the Joint Office of Gas Transporters on 1st October 2005, as a UNC ancillary document. Define the "ECQ Calculation Methodology" as the methodology from time to time revised by the Transporters (subject to prior approval by Panel Majority of the Uniform Network Code Committee) and issued to Users setting out the processes for the calculation of the ECQ component to be carried out under UNC TPD Section Q 6. All subsequent revisions to the ECQ Methodology Statement will be covered by these revised arrangements.

Background

In accordance with UNC TPD Section Q 6, the quantities of gas, associated with Emergency Curtailment actions, undertaken by Transporters for each Gas Day of a Gas Deficit Emergency (GDE), will be assigned to an effective trade (NBP title transfer) between National Grid NTS (as residual System balancer) and the relevant User for the relevant Gas Day.

Emergency Curtailment* covers both Emergency Interruption* within a Potential Gas Deficit Emergency (Stage 1 ~ Potential GDE) and Firm load shedding in stage 3 of an actual GDE. The Emergency Curtailment Quantity (ECQ) title trade seeks to ensure that a User's Daily Imbalance is maintained after Emergency Curtailment has been actioned. Each Transporter would be responsible for the calculation of its element of the ECQ for the relevant connected System Exit Points. This document defines the uniform methodology for calculating the ECQ element for all Transporters.

The Emergency Curtailment Quantity is defined within UNC TPD Section Q 6 as “The quantity of gas (in kWh) which the Transporters, in aggregate, reasonably estimate that User would have offtaken from the Total System at System Exit Points in respect of which Emergency Curtailment has occurred but for the fact that Emergency Curtailment had occurred at those System Exit Points”

The ECQ Methodology will comprise the process that all Transporters will follow to calculate each Transporter's component of the Emergency Curtailment Quantity.

The Proposal

The existing 'ECQ Methodology' would become an ancillary to the UNC and subject to oversight by the UNC Committee, consistent with good governance principles outlined in Ofgem's approval of Network Code Modification 730 "Extending established Network Code governance arrangements to relevant Transco documents". This means that although any Transporter could propose changes to the ECQ Methodology from time to time it would be necessary for the UNC Committee to approve any changes to such a document by Panel Majority.

Consequences of not implementing the proposal

If the Proposal were not implemented there is a risk that Transporters may calculate the components of the ECQ using inconsistent calculation methods.”

Alternative Proposal 0054a was as follows:

“In Ofgem’s decision letter to Modification Proposal 044, it is stated that Ofgem see merit in the inclusion of a single ECQ methodology for all relevant transporters, within the Unified Network Code (UNC). This is what this proposal seeks to establish.

This proposal aims to ensure that the following four steps are sequentially carried out by the relevant transporter, in their estimation of a User’s ECQ. A common methodology, adopted by all transporters will guard against unnecessary fragmentation and make available a clear and consistent approach, providing greater certainty in the event of a Potential Gas Deficit Emergency or an actual Gas Deficit Emergency (GDE).

Whilst we welcome National Grid’s efforts to bring forward a proposal to define the ECQ Methodology Statement as an ancillary document, we feel that it is of the greatest importance that the ECQ methodology is detailed in the UNC. Ancillary documents are, in nature procedural, which set out how the transporter will fulfill obligations under the Code. As a matter of principle, substantive commercial terms ought to be set out in a document that can be subject to the full jurisdiction of the code governance process.

We do not consider the current version of the ECQ methodology, provided by NG NTS, will provide the most accurate representation of a User’s ECQ. For example, using SOQ as a means to estimate a user’s ECQ could give a substantially different estimate to what the user is actually offtaking on a particular day. We propose the following steps, as previously set out by NG NTS, for transporters to follow when calculating a user’s ECQ. The following process will give both users and transporters sufficient confidence that the ECQ methodology will give an accurate as possible estimate of the associated quantities of gas, providing a better representation of the system as a whole and individual of portfolio positions.

Step 1 OPN: The Transporter must use OPNs when available. OPNs represent the most accurate proxy for ECQs as they can be used if Emergency Curtailment occurs within day.

Step 2 Nomination Calculation Method: Where no OPN is available and a nomination has been submitted - The following algorithm calculates an estimate of the ECQ Supply Point component from the prevailing nomination data at the time the ECQ estimate is made.

Step 3 Historical Consumption: When OPNs and Nominations are unavailable; an algorithm will be used to assess the curtailed Quantity for non-OPN Supply Points based on historical consumption to quantify the Curtailment Quantity.

Step 4 Scaled SOQ: If no OPN, Nomination or appropriate historical data is available then the Registered Capacity (SOQ), scaled to match the forecast demand, can be used.

For clarification, on any day following the day of a potential or actual GDE has been declared, the ECQ can be zero.

Step 1 Calculation Algorithm for System Exit Points where a valid OPN or Nomination is available

The following table represents the process for calculating the System Exit Point component of the Emergency Curtailment Quantity from an Offtake Profile Notice (OPN).

OPN Quantity Calculation Process	Curtailment on the first Gas Day of a GDE	Curtailment on subsequent Gas Days
Bi-directional System Points (European Interconnector and Storage sites)	The quantity will be calculated as the Users operational nomination provided by the interconnector or storage agent.	If no OPN/SFN is provided then the calculation methodology for non-OPN System Exit Points will be used.
VLDMC System Exit Points	At single User System Exit Points the quantity calculation would be based solely on the Offtake Profile Notice (OPN) for the relevant gas day. At multi-User System Exit Points the agent would provide a default division of the quantity implied by the OPN.	If no OPN is provided then the calculation methodology for non-OPN System Exit Points will be used.

Step 2 Nomination Calculation Method

Repeat the following steps for each curtailed supply point

1. Get the nominated quantity (kWh) for this site for the relevant Gas Day
2. Multiply the nominated quantity by the curtailment duration and divide by 24.

Step 3 Calculation Algorithm for System Exit Points where no valid OPN or Nomination is available

The following algorithm applies for all System Exit Points where no valid OPN or Nomination is available.

1. Obtain list of relevant curtailed sites for relevant Gas Day. If there is no Emergency Curtailment, the process stops here. Otherwise obtain a list of curtailed site supply point ID's and curtailment start and end times for the relevant Gas Day.
Repeat the following steps (2-6) for each of these curtailed System Exit Points
2. Identify whether this site was curtailed during the last 21 days and note which days were curtailed.
3. Identify relevant Gas day...
If site was not curtailed on D-7, use D-7 otherwise...
If site was not curtailed on D-14, use D-14 otherwise...
If site was not curtailed on D-21, use D-21 otherwise...
Start at D-2 and work backwards to D-21 until a gas day is found where the site was not curtailed.
If all 21 days are curtailed, set estimate of curtailment to zero.
4. Having identified which day is to be used, get the measured quantity for this site for the relevant Gas Day.
5. Using the start time and restore time, only extract data from the within day period that the site was curtailed and obtain the relevant hourly measured quantities needed.
6. Each System Exit Point that was curtailed is noted along with its associated reason code (Transporter, Emergency, User), Load type (for forecasting purposes), whether it is a Network Sensitive Load (NSL) or not, which day was used for the replacement measured quantity (for validation/investigation) and 24 hourly measured quantity values.

Step 4 Calculation Algorithm for System Exit Points where no valid OPN, Nomination or historical data is available (Stage 3)

1. Obtain list of curtailed sites for relevant Gas Day. If there is no curtailment, the process stops here. Otherwise obtain a list of curtailed System Exit Points, supply point ID's, curtailment start and end times for the relevant Gas Day and Registered Supply Point Capacities.

2. Calculate the ratio of aggregated forecast demand divided by the aggregated Registered Supply Point Capacity for the relevant System Exit Points (i.e. all System Exit Points except NDM and Priority Supply Points). This is the correction ratio (CR) that allows for forecast demand to be less than the 1-in-20 peak forecast demand i.e. the Registered Supply Point Capacity.

RSPCi ~ Registered Supply Point Capacity at Exit Point i (kWh)

CR ~ Correction Ratio (-)

CR = (Aggregate Forecast Demand for all relevant System Exit Points)/(Sum of RSPC for all relevant System Exit Points)

Repeat the following for each of these curtailed System Exit Points

3. Calculate estimate...

CDi ~ Curtailment Duration at Exit Point i (hours)

ECQi ~ Emergency Curtailment Quantity component for Exit Point i (kWh)

ECQi = RSPCi * (CDi/24) * CR

Shared Supply Meter Points (Step 4)

For non VLDMC Shared Supply Meter Points, the Users (or agent on behalf of the Users) will provide a default User allocation method, on notification of a relevant Emergency, that applies unless Users have called User "interruption". If no default User allocation method is available a transporter estimated allocation will be used.

For VLDMC Shared Supply Meter Points, the Users (or agent on behalf of the Users) will provide, on notification of a relevant Emergency, an allocation method that applies to the OPN. If no User allocation method is available, a transporter default allocation will be used.

Consequences of not implementing this Modification Proposal

If this proposal is not implemented, then the ECQ methodology can only be changed by transporters. Through including the ECQ Methodology within the UNC, a level playing field is established, to allow those directly affected by the ECQ calculation to influence the methodologies used, as appropriate.

If the ECQ methodology is not detailed in the UNC then fragmentation may occur, resulting in a lack of clarity and increased cost as users may have to familiarise themselves with and understand up to four different methodologies, depending on the networks their sites are connected to.

This proposal hard codes a set process for transporters to use when calculating the ECQ methodology. The set process proposed should minimise the number of potential claims, once the system is restored after an emergency, through ensuring a more accurate representation of a User's ECQ.

This proposal should ensure against inaccurate and misleading representation of the balance of the system and individual portfolios, though ensuring ECQs are as near as possible to the actual amount of gas offtaken at System Exit Points, within a given timeframe.

In the event that this proposal is not implemented, the probability of the duration of a gas emergency may be prolonged as inaccurate and poorly understood (due to the flexibility in how the transporter would otherwise select different methods of estimating) ECQs may be calculated, thereby leading to limited information of the balance of the system.”

2. **Extent to which implementation of the proposed modification would better facilitate the relevant objectives**

The proposer of **Modification Proposal 0054** suggested that implementation of this Proposal would further the "relevant objectives set out in Standard Special Condition A11 and specifically 1(a) the efficient and economic operation of the pipe-line system by ensuring that all Transporters meet their UNC obligations in regard to the calculation of their components of the ECQ in a consistent manner" and would "improve the efficient operation of the ECQ Process by increasing clarity."

The proposer of **Alternative Modification Proposal 0054a** suggested that "implementation of this alternative proposal would better facilitate the following relevant objectives, over and above the original proposal:

- (a) *“the efficient and economic operation of the pipeline system...”* through ensuring that transporters have the best estimate available to them in a GDE of the quantity gas, which may have been offtaken, had an ECQ not been taken, thus enabling transporters to better balance the system in an emergency.
- (b) *“...the coordinated, efficient and economical operation of (i) the combined pipeline system and/or (ii) the pipeline system of one or more other relevant gas transporters,”* though ensuring a consistent and coordinated approach for all transporters to calculate a User’s ECQ and ensuring the most accurate ECQ to better enable each transporter to balance their system in the event of an GDE.
- (d) *“...the securing of effective competition between relevant shippers and between relevant suppliers....”*, through ensuring each shipper/supplier is subject to the same calculation process when the transporter determines their ECQ. As stated in Ofgem’s decision letter to Modification Proposal 044, ‘where different methodologies co-exist, this could ‘result in shipper uncertainty as to the treatment of particular loads (and potentially differential treatment of loads connected to different networks).’
- (f) *“...the promotion of efficiency in the implementation and administration of the network code and or the uniform network code”* through ensuring that key methodologies, which have significant commercial impacts on users, are subject to code governance procedures."

3. The implications of implementing the Modification Proposal on security of supply, operation of the Total System and industry fragmentation

The proposer of **Modification Proposal 0054** suggested that implementation would lead "to the establishment of the existing Uniform ECQ Calculation Methodology Statement, covering all Transporters, as an ancillary document under the UNC" and further suggested that implementation would be beneficial in serving to avoid industry fragmentation.

The proposer of **Modification Proposal 0054a** stated that, "This proposal hard codes a set process for transporters to use when calculating the ECQ methodology." The proposer believed that if the ECQ methodology, proposed in MP0054a, were not implemented and, "If the ECQ methodology is not detailed in the UNC then fragmentation may occur, resulting in a lack of clarity and increased cost as users may have to familiarise themselves with and understand up to four different methodologies, depending on the networks their sites are connected to."

4. The implications for Transporters and each Transporter of implementing the Modification Proposal, including

a) implications for operation of the System:

Modification Proposal 0054:

As implementation would have the effect of reflecting prevailing operational practice, implementation would have no such implications

Alternative Modification Proposal 0054a:

Any Transporters that do not operate in accordance with the proposed procedure would need to amend their operations.

b) development and capital cost and operating cost implications:

Modification Proposal 0054:

No such implications have been identified by the proposer.

Alternative Modification Proposal 0054a:

No such implications have been identified by the proposer.

The SME seeks views from respondents regarding any such implications

c) extent to which it is appropriate to recover the costs, and proposal for the most appropriate way to recover the costs:

Both Proposals:

Neither proposer has identified any such costs.

d) analysis of the consequences (if any) this proposal would have on price regulation:

Both Proposals:

No such consequences have been identified.

5. The consequence of implementing the Modification Proposal on the level of contractual risk of each Transporter under the Code as modified by the Modification Proposal

No such consequence has been identified

6. The high level indication of the areas of the UK Link System likely to be affected, together with the development implications and other implications for the UK Link Systems and related computer systems of each Transporter and Users

Modification Proposal 0054:

The Transporters advised the Workstreams that no additional UK Link System costs were identified as implementation would not affect current processes that reflect the implementation of Modification 0044.

Alternative Modification Proposal 0054a:

The Transporters advised the Workstreams that system changes would be required in order to implement this Alternative Proposal and it was unlikely that such changes could be implemented until after the 2005/6 winter period.

7. The implications of implementing the Modification Proposal for Users, including administrative and operational costs and level of contractual risk

Modification Proposal 0054:

The proposer has not identified any such implications.

Alternative Modification Proposal 0054a:

The proposer considered that implementation would provide the higher level of assurance in respect of the ECQ process and consequently might reduce Users' levels of contractual risk.

8. The implications of implementing the Modification Proposal for Terminal Operators, Consumers, Connected System Operators, Suppliers, producers and, any Non Code Party

Both Proposals:

Implementation would provide a higher level of assurance and consequently might reduce the level of contractual risk for consumers at Supply Points impacted by the ECQ process.

Alternative Modification Proposal 0054a:

The proposer considered that implementation of the Alternative Proposal would provide the higher level of assurance.

9. Consequences on the legislative and regulatory obligations and contractual relationships of each Transporter and each User and Non Code Party of implementing the Modification Proposal

Both Proposals:

No such consequences have been identified.

10. Analysis of any advantages or disadvantages of implementation of the Modification Proposal

Both Proposals:

The following **advantages** of implementation have been identified:

Greater level of assurance for shippers, suppliers and consumers on the Uniform ECQ procedure, including changes to the procedure

Modification Proposal 0054:

The proposer has identified the following **advantage** of implementation:-

"The Proposal will ensure that the Uniform ECQ Calculation Methodology is subject to oversight by the UNC Committee, consistent with good governance principles outlined in Ofgem's approval of Network Code Modification 730 "Extending established Network Code governance arrangements to relevant Transco documents"."

The proposer has identified the following **disadvantage** of implementation:-

"The Proposal will introduce a delay between the identification of a requirement to modify the ECQ Calculation Methodology and a revision to the Statement."

Alternative Modification Proposal 0054a:

The proposer did not provide any advantages of implementation, however the following statements were provided as part of the Proposal:-

"Through including the ECQ Methodology within the UNC, a level playing field is established, to allow those directly affected by the ECQ calculation to influence the methodologies used, as appropriate."

"The set process proposed should minimise the number of potential claims"

"A common methodology, adopted by all transporters will guard against unnecessary fragmentation and make available a clear and consistent approach"

11. Summary of representations received (to the extent that the import of those representations are not reflected elsewhere in the Modification Report)

Representations are invited.

12. The extent to which the implementation is required to enable each Transporter to facilitate compliance with safety or other legislation

Both Proposals:

No such requirement has been identified.

13. The extent to which the implementation is required having regard to any proposed change in the methodology established under paragraph 5 of Condition A4 or the statement furnished by each Transporter under paragraph 1 of Condition 4 of the Transporter's Licence

Both Proposals:

No such requirement has been identified.

14. Programme for works required as a consequence of implementing the Modification Proposal

Modification Proposal 0054:

No program for works has been identified. The interim spreadsheets and subsequently the more automated solution for implementation of Modification Proposal 0044 would be fit for purpose.

Alternative Modification Proposal 0054a:

Any transporters that do not currently follow the proposed procedure would need to revise their existing processes and systems. The Transporters advised the Workstreams that the necessary automation could not be delivered until after the 2005/6 winter period.

15. Proposed implementation timetable (including timetable for any necessary information systems changes)

Both Proposals:

The proposers have suggested immediate implementation

16. Implications of implementing this Modification Proposal upon existing Code Standards of Service

No such implications have been identified.

17. Recommendation regarding implementation of this Modification Proposal and the number of votes of the Modification Panel

Both Proposals:

No such implications have been identified.

19. Text

**UNIFORM NETWORK CODE - OFFTAKE ARRANGEMENTS
DOCUMENT
SECTION C
SAFETY AND EMERGENCY**

Insert the following as new paragraph 2.7.7:

“2.7.7 The Transporters shall from time to time establish and publish, and shall revise (subject to prior approval by Panel Majority of the Network Code Committee) and issue to Users an ECQ Methodology. An “**ECQ Methodology**” is a methodology statement setting out the calculations that each Transporter will use to estimate (and/or revise any previous estimate of) the aggregate quantity of gas (in kWh) that each User would have offtaken during a Day from the relevant System at System Exit Points in respect of which Emergency Curtailment has occurred but for the fact that Emergency Curtailment had occurred at those System Exit Points in respect of that Day.”

Representations are now sought in respect of this Draft Report and prior to the Transporters finalising the Report

Subject Matter Expert sign off:

I confirm that I have prepared this modification report in accordance with the Modification Rules.

Signature:

Date :

Signed for and on behalf of Relevant Gas Transporters:

Tim Davis
Chief Executive, Joint Office of Gas Transporters

Signature:

Date :