

**Modification Report**  
**Modification to Codify Emergency Curtailment Quantity (ECQ) Methodology**  
**Modification Reference Number 0054a**  
Version 3.0

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 fulfil 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).

<b>OPN Quantity Calculation Process</b>	<b>Curtailment on the first Gas Day of a GDE</b>	<b>Curtailment on subsequent Gas Days</b>
<b>Bi-directional System Points (European Interconnector and Storage sites)</b>	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.
<b>VLDMC System Exit Points</b>	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.  
  
 $RSPCi \sim \text{Registered Supply Point Capacity at Exit Point } i \text{ (kWh)}$

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 would 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

### Modification Proposal 0054

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."

EDFE believed that implementation of Proposal 0054 would not meet the relevant objectives *"as it would mean that only Transporters would have the ability to change the ECQ methodology."*

STUK addressed the statements within Proposal 0054 in respect of relevant objective (a) which referred to calculation of components of the ECQ in a consistent manner and stated its belief that *"it is difficult to determine how this proposal will ensure the calculation of the ECQ components in a consistent manner as the current Methodology statement is open to very wide interpretation which is not affected by this proposal. Also the change process suggested does not offer any assurances that a full consultation period will be offered or suggest the time frames in which this will take place."*

NGUKD provided an outline of the level of governance which would apply, were Proposal 0054 directed to implementation. NGUKD believed that the level of governance required meant that, *"implementation would be consistent with requirements of Standard Special Condition A11.1(f) of a gas transporter's licence."*

After outlining the governance process suggested within Proposal 0054, SGN expressed the belief that *"such arrangements would better facilitate the relevant objectives by promoting efficiency in implementation and administration of the UNC and associated arrangements."*

As part of its representation to the Proposal 0054 and 0054a, NGTNS stated its belief that implementation of Proposal 0054, *"over and above the alternate proposal"*, would better facilitate the following:

*"(a) 'the efficient and economic operation of the pipeline system...' through ensuring that transporters can set the ECQ as a reasonable estimate of the quantity gas, which might otherwise have been offtaken, had curtailment not occurred, thus enabling National Grid NTS to better carry out its residual system balancing role 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,' through ensuring a consistent and coordinated approach for all transporters to calculate a User's ECQ representing a reasonable estimate of the quantity gas, which might otherwise have been offtaken, to better enable each Transporter to manage its system in the event of a Gas Deficit Emergency (GDE).*

*(d) '...the securing of effective competition between relevant shippers and between relevant suppliers....', through ensuring the ECQ calculation process represents a reasonable*



*estimate of the quantity gas, which might otherwise have been offtaken, had curtailment not occurred for every Supply Point of each shipper/supplier.*

*(e) '...the provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security...are satisfied', through ensuring a reasonable approach to estimating the ECQ.*

*(f) '...the promotion of efficiency in the implementation and administration of the network code and or the uniform network code' through ensuring that those methodologies that have significant commercial impacts on Users are subject to appropriate code governance procedures.'*

### **Modification Proposal 0054a**

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."

In respect of Alternative Proposal 0054a, EDFE believed that *"those parties affect by the ECQ calculation should be able to feed into the process of amending the calculation as they have a vested interest as per E.On's alternative modification. Alternative modification 054a would therefore create a level playing field between different Users, in line with GT's relevant objectives."* Reference to a "level playing field" indicates that this response referred to relevant objective (c) "the efficient discharge of the licensee's obligations under this licence" and particular the anti discrimination provisions of the licence.

In supporting implementation of Alternative Proposal 0054a GDF stated that if implemented the Proposal would better facilitate the following relevant objectives: -

- SSC A1.11 (a) - GDF stated that the proposed methodology changes represented *"a significant improvement to those already contained in ECQ methodology statement and to this extent better reflect the intent of mod 0044 by more accurately calculating ECQs. There is currently scope for significant variance between ECQs calculated on scaled SOQ compared to nomination and consumption methods."*
- SSC A1.11 (d) GDF believed implementation of Proposal 0054a would *"reduce the potential for undue risk to users"*.
- SSC A1.11 (f) GDF stated that it was *"imperative that Users have the opportunity to propose changes to the ECQ methodology due to the commercial impact of changes."* and therefore, it was appropriate *"that ECQ methodology is contained within the UNC itself and subject to code governance."*

RWE in support of Alternative Proposal 0054a, which proposed a single hierarchical ECQ calculation sequence, pointed out that the principle reason for *"implementing modification proposal 0044 was to enhance the efficient and economic operation of the pipeline system,"* and stated that *"it would be disappointing if this was undermined by continuing user uncertainty surrounding the magnitude and accuracy of the ECQ calculation."*

In respect of Alternative Proposal 0054a, STUK believed *"that this proposal better facilitates relevant objective (a) the efficient and economic operation of the pipeline system, by ensuring that the most accurate information and consistent calculation method is used to calculate a users ECQ, and (f) the promotion of efficiency in the implementation and administration of the network code and or the network code, including the ECQ methodology in the code allows it to be subject to the full governance processes."*

NGUKD outlined how implementation of Proposal 0054 would establish *"one methodology and this will implemented via a common system used by all transporters"*, therefore, NGUKD remained unconvinced that the implementation of Alternative Proposal 0054a *"would further the relevant objective pertaining to '... the securing of competition between relevant shippers and between relevant suppliers ...' as stated by the proposer."*

SGN stated that it was not apparent that *"the calculation proposals set out in 054a would necessarily be any more accurate or better facilitate any of the relevant objectives set out in the modification report."*

NGNTS also expressed the view that implementation of Alternative Proposal 0054a would provide *"an ability for Users at those sites that provide OPNs with the facility to avoid the implications of UNC0044 as OPN's on subsequent days of an Emergency can, and might be expected to, be zero. We consider that the implementation of Modification Proposal 0054a would lead to the provisions of Modification 0044 being effective only on the first day of an emergency for all those sites that provide an OPN. We believe that this situation would therefore establish a discriminatory treatment in favour of such sites compared to non OPN sites."*



**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.

EDFE suggested that the methodology set out in Alternative Proposal 0054a better reflected *"current commercial operations and how Users nominate gas at large offtakes as it doesn't use SOQ's in the absence of OPN's or historical data as NGG's proposal does. This is important as not all sites offtake at full capacity such as CCGT's which respond to varying summer and winter electricity demands. Implementing E.ON's methodology would mean that claims after the day would be reduced in respect of any ECQ application as it more closely reflects commercial arrangements, minimizing the distortion to Users's financial risk."*

**b) development and capital cost and operating cost implications:**

**Both Proposals**

No such implications have been identified.

**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.

EDFE commented on the "*claim that extra costs will be placed on Transporters through implementation of modification 054a*". It believed that "*these costs, if any will be minimal as methodologies under both modifications do not vary that significantly so we would expect Transporters have already taken much of this cost into account when designing their systems and processes.*"

E.ON noted that "*some transporters have argued that implementation of modification 054a would result in a greater cost incurred by transporters.*" E.ON recognised that whilst this "*might, arguably, be the case, the methodology proposed under 054a differs very little from that proposed under modification 044 and therefore one might have expected that transporters would have already begun spending money to develop systems, post implementation of that proposal. In addition, any costs associated with proposal 054a would be fully justified by the benefits, as described in our proposal and in this response.*"

NGUKD advised that, "*the system to replace the manual processing of the ECQ has just been commissioned and to establish how this matches the requirements of proposal 0054a has yet to be assessed. As a result it is not possible to say at this present time when proposal 0054a could be implemented. As proposal 0054 is about governance, it is practical to implement immediately.*"

In respect of Alternative Proposal 0054a SGN expressed the concern that "*any changes to the method just implemented would require further work and result in additional cost.*"

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

### **Modification Proposal 0054:**

*In response to concerns relating the levels of risk, NGNTS wished to "assure all Users shipping gas to NTS connected loads that, if commercial interruption is in place for such sites for any day within an Emergency, and such 'interruption' has been notified to National Grid NTS by a P70 notice, then the ECQ component for these sites will be set to zero. For NTS sites where OPN's are received and no commercial interruption is in place, the OPNs will be used when received prior to curtailment to estimate the ECQ component for the site; for subsequent days historical allocations will be used unless a P70 is received. It should be noted that OPNs and Nominations represent a volume that is intended to be offtaken and not a volume that would otherwise have been offtaken had curtailment not occurred and hence zero OPNs or Nominations post curtailment are merely confirming that curtailment is in effect and do not represent a reasonable estimate of the ECQ."*

*RWE after raising the possibility of "different transporters using different methodologies to calculate ECQ on their network" if Proposal 0054 were implemented stated its opinion that "this could lead to increased costs to users as a result of having to develop different and more complex systems to anticipate and verify their aggregate ECQ across networks. Also if transporters use different methodologies to calculate ECQ on their network this may lead to significantly different ECQ quantities being calculated for sites with similar characteristics. Bearing in mind the potential financial impact that this could cause, users could end up being materially discriminated against based on their throughput on particular networks." RWE acknowledged that "the appeals process allows users to challenge transporters if their chosen ECQ Methodology produces an ECQ which does not reflect a user's view of what it should be," but suggested that "market efficiency will not be promoted by having to rely on this process. Nor is it unrealistic to think that as a consequence of ECQs being inaccurately estimated and exposure to SMP cash-out, smaller users may fail before the point where they can seek redress from the appeal process."*

### **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.

*EDFE supported Alternative Proposal 0054a on the basis that implementation would "hard code the methodology into the code which would prevent divergent estimations of the ECQ to appear which would reduce the amount of risk Users will face when trying to estimate their own ECQ quantities."*

*RWE, in support of implementing Alternative Proposal 0054, stated that without the "assurance derived from having a common methodology subject to proper UNC governance and which has as its basis the calculation of ECQ as accurately as possible based on information they have provided have provided to transporters, users will always feel exposed to some level of unquantifiable risk. Bearing in mind the market circumstances prevailing at the time this risk could well be material and unmanageable which does*

*nothing to encourage new market entrants and may in the longer term be a contributing factor towards further market concentration."*

SSE expressed a preference for implementation of Alternative Proposal 0054a, as it would introduce *"a common methodology across all transporters."* It suggested that failure to do this *"may result in lack of clarity and increased costs as shippers have to understand four different methodologies depending on the network the customer is connected to."*

NGUKD noted that, *"the proposal establishes a strict hierarchy in terms of the calculation used to determine the ECQ of a particular supply points. In the majority of cases it would be possible to adhere to the hierarchy, but in some case it may be necessary to deviate. We would not wish to see such a deviation as a breach of code, bearing in mind the that this process is only likely to operate very rarely and at times of intense activity and establishing the aggregate ECQ will require information to be obtained and collated from a variety of sources. With the implementation of proposal 0044, should a shipper wish to challenge their ECQ, a mechanism exists to correct for disputed individual supply point ECQs. The post event process should be used as the means of refining the ECQ rather than ensuring absolute accuracy while the emergency occurrence. At the very least, should proposal 0054a be implemented, there should only be a "reasonable endeavours" obligation on transporters covering adherence to the hierarchy and the obtaining of information from a specific sources.*

**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'."

As detailed elsewhere in this report, some respondents did not believe that implementation of Proposal would introduce a uniform methodology in practice.

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"

As detailed elsewhere in this report, a number of respondents supported these statements.

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

Ten Representations were received.

		<b>0054</b>	<b>0054a</b>
EDF Energy plc	EDFE	Not in Support	Support
E.ON UK plc	E.ON	Not in Support	Support
Gaz de France ESS (UK ) Ltd	GDF	Comments	Support
National Grid Gas plc NTS	NGNTS	Support	Not in Support
National Grid Gas plc UK Distribution	NGUKD	Support	Not in Support
RWE npower plc	RWE	Not in Support	Support
Scottish and Southern Energy plc	SSE	Support	Support
Scotia Gas Networks	SGN	Support	Not in Support
Statoil (UK) Limited	STUK	Not in Support	Support
Total Gas & Power Limited	TGP	Not in Support	Support

Four (NGNTS, SGN, SSE, NGUKD) respondents supported implementation of Proposal 0054.

GDF provided comments.

Seven (EDFE, E.ON, GDF, RWE, SSE, STUK, TGP) respondents supported implementation of Alternative Proposal 0054a.

Whilst SSE supported both Proposals it expressed a preference for Alternative Proposal 0054a.

Representations addressed the following issues:

### **Common Methodology**

GDF expressed agreement with the principle that *"the ECQ methodology should be a common process which transporters follow; any divergence would cause confusion and add costs to shippers and customers."*

RWE pointed out that the *"current ECQ Methodology Statement identifies four common methods by which transporters may estimate a user's ECQ Quantity based on information available to them at the time. However, whilst the methodologies may be common there is nothing currently stopping different transporters using different methodologies to calculate ECQ on their network, and this situation could persist should modification proposal 0054 be implemented."* In support of implementing Alternative Proposal 0054a, RWE stated that introducing *"a common methodology into the UNC based on an assumption that the ECQ will be calculated as accurately as possible using data provided by users (rather than data which transporters currently have access to), as proposed in modification proposal 0054a, will remove a lot of the uncertainty that currently exists surrounding how transporters will interpret and calculate ECQ. This will give users greater confidence of their imbalance position during emergency curtailment periods and allow them to react appropriately to the heightened incentives created following implementation of modification proposal 0044."*

E.ON expressed the view that 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 (GDE) or an actual GDE. Implementation of NG NTS's proposal will not provide a common methodology for all transporters to adopt in calculating a User's ECQ as*



*transporters can chose which estimate to use. Such an approach, therefore, does very little to improve shipper certainty with respect to the treatment of particular loads.*

*A significant defect of NG NTS's proposal 054 is that it allows transporters to use SOQ as a means for estimating a User's ECQ. This could result in a substantially different number to what the User is actually offtaking on a given day. This might particularly be the case for CCGTs, operating to cover within day peaks in the electricity market or for sites which are not weather dependent. Furthermore, ECQs can be actioned at any time and not simply in peak winter periods, which may also result in actual offtakes differing substantially from SOQ."*

STUK pointed out that implementation of Proposal 0054 would not prevent *"inconsistent methods of calculating the components of the ECQ"* as the methodology itself states that *"the relevant Transporter...will select what it considers to be the most reasonable of the estimates or alternatively manually enter an alternate estimate"*. STUK concluded from this that implementation of *"this proposal will not offer any assurances to Users that the most appropriate method of calculation has been used for their ECQ."*

NGUKD pointed out that following the *"implementation of proposal 0044, substantial investment has been made to ensure that the existing methodology could be systematized. The system will in effect replicate many of the principles specified in 0054a, but nevertheless, it may be necessary to deviate on some occasions from the hierarchy proposed, as some intervention may be required. Consequently, we believe it is appropriate that transporters should have some latitude regarding the calculation as, first and foremost, it is the transporters obligation to set a ECQ to ensure shipper incentive to be in balance in the event of an emergency being declared, established by the implementation of proposal 0044 remains effective."* NGUKD also stated that it was not appropriate to say that if Proposal 0054 were implemented *"each transporter could establish a shipper's ECQ differently. Whether the methodology is contained with in the code, or not, there is one methodology and this will be implemented via a common system used by all transporters."*

### **Accuracy of ECQ Calculation**

E.ON stated that implementation of Alternative Proposal 0054a would *"ensure against inaccurate and misleading representation of the balance of the system and individual portfolios, through ensuring ECQs are as near as possible to the actual amount of gas offtaken at System Exit Points."* Whilst acknowledging the work undertaken by the transporters in producing a note of clarification, E.ON suggested that the note did not provide *"the same assurances that implementation of Modification Proposal 054a would provide."* Referring to a statement in this note that *"for the majority of LDZ System Exit Points, the ECQ would be calculated using historical allocation data."* E.ON suggested that hard coding the ECQ methodology would *"ensure that the terms are subject to the full jurisdiction of the code governance process and makes certain that transporters follow a standardised set of sequential steps when calculating a User's ECQ for all LDZ system exit points."*

GDF pointed out that there were *"significant flaws that currently exist within the ECQ methodology statement, which could allow for inaccurate quantity calculations. Currently, because of transporter's system constraints, scaled SOQ is the primary method for*

*calculating demand and more accurate methods such as nominations and historical consumption, are ignored."*

SSE in, preferring the implementation of Alternative Proposal 0054a, pointed out that it proposed *"a set sequential process for Transporters to use when calculating the ECQ. The process will give a common methodology across all transporters to produce an accurate as possible estimate of the associated quantities of gas."* SSE also did not *"consider using an SOQ, in the first instance, to calculate the ECQ to be the most accurate forecast of a customer's demand."* It therefore welcomed *"proposal 0054a, which provides a defined hierarchy of methodologies."*

In respect of Alternative Proposal 0054a, STUK stated, *"that the ECQ methodology in this proposal offers a clear, sequential process for the calculation of the ECQ, which will help give confidence to Users that the most accurate representation of their ECQ has been determined. STUK have concerns that the current ECQ Methodology Statement (circulated in September 2005) offers Transporters the ability to use their own interpretation of the best estimate increasing the potential for confusion and the number of appeals."*

TGP expressed a preference for *"the step-wise approach proposed in 54a since it is not clear within the present ECQ methodology statement whether the best available proxies will be utilised to derive ECQ volumes. This step-wise approach should also lead to more consistency, between transporters, when deriving these values for periods of emergency interruption. This consistency in turn should provide greater levels of clarity and reduce the ex-post administrative burden of shippers attempting to independently validate these transporter-calculated values. It may also reduce the number of appeals raised after the emergency period. Hence we consider proposal 54a, relative to 54, better facilitates the relevant objectives."*

NGNTS, in supporting implementation of Proposal 0054, referred to the need for accuracy stating that the ECQ calculated *"should be the closest approximation to what would otherwise have been offtaken, and hence allocated, on each day of an Emergency."* In reference to the methodology defined within 0054a NGNTS noted that it was *"a defined hierarchy starting with Offtake Profile Notices (OPNS) then Nominations then allocations and finally SOQs. Within this defined hierarchy there does not appear to be any test to ascertain whether each step represents a reasonable estimate of the volume that would otherwise have been offtaken before moving on to the next step, we don't consider this limitation to be consistent with the original intent of modification UNC0044."*

In respect of Alternative Proposal 0054a SGN expressed the concern *"that alternative arrangements set out to calculate the Emergency Curtailment Quantity are based on concerns that initial arrangements relied upon site SOQs as a means of estimating a User's ECQ. As highlighted in the joint classificatory note circulated by Transporters at the end of last year, this was just an interim solution and has been replaced by a systematised approach which will take into account a range of information available to Transporters, including nominations where available and historical data. As such, we do not believe that many of the arguments put forward to justify this proposal are relevant. It is not clear that the arrangements proposed in 054a for calculating the ECQ would offer any significant additional benefit or be significantly more accurate than those set out in the clarificatory note for implementation in January."*

## **Flexibility of ECQ Calculation**

NGUKD noted that implementation of Alternative Proposal 0054a would establish *"a strict hierarchy in terms of the calculation used to determine the ECQ of a particular supply points. In the majority of cases it would be possible to adhere to the hierarchy, but in some case it may be necessary to deviate. We would not wish to see such a deviation as a breach of code, bearing in mind the that this process is only likely to operate very rarely and at times of intense activity and establishing the aggregate ECQ will require information to be obtained and collated from a variety of sources. With the implementation of proposal 0044, should a shipper wish to challenge their ECQ, a mechanism exists to correct for disputed individual supply point ECQs. The post event process should be used as the means of refining the ECQ rather than ensuring absolute accuracy while the emergency occurrence. At the very least, should proposal 0054a be implemented, there should only be a "reasonable endeavours" obligation on transporters covering adherence to the hierarchy and the obtaining of information from a specific sources."*

## **Governance of Methodology Changes**

GDF pointed out that the calculation of the ECQ *"has significant commercial impacts on shippers and accuracy is key. It is inappropriate that changes to the methodology to calculate the ECQ should only be made by transporters who are neutral to any commercial consequences that may arise. Modification proposal 0054 does not allow for User proposed changes, this is a significant shortfall as no route would exist for formal input from affected parties."* Also in respect of Proposal 0054, GDF suggested that implementation *"would set in place an inaccurate calculation method as standard and give no means for shippers to propose enhancements."*

In supporting implementation of Alternative Proposal 0054a, TGP specifically expressed support to the inclusion of the ECQ methodology within the UNC. In its view, *"subjecting it to the same governance arrangements as the UNC will improve the transparency and accountability of the process. We note that mod 54 may only be subsequently modified if transporters, at their discretion, suggest proposed changes to the Network Code Committee. We see no reasonable justification for this approach, since the UNC governance arrangements including Ofgem should ensure that inappropriate methodology changes are not implemented."*

SSE, in preferring Alternative Proposal 0054a, believed that *"the ECQ as an important commercial term should be set out in the Unified Network Code that is subject to the full jurisdiction of the code governance process. We do not consider an Ancillary Document to be adequate."*

STUK welcomed *"the efforts made by National Grid in proposal 0054 to define the ECQ Methodology Statement as an ancillary document to the code"* but did not *"feel that the proposal goes far enough to give confidence to the industry that a full consultation process will be followed."* STUK pointed out that Proposal 0054 suggested, *"that changes to the ECQ Methodology can only be made by the Transporters with Majority approval of the UNC Committee. STUK believe that in order for full industry exposure to be given to the changes to the ECQ Methodology they should follow the already established Modification governance process."* In respect of Alternative Proposal 0054a, STUK stated that inclusion of the ECQ Methodology into the UNC would allow *"all signatories to the code to be able*

*to propose a change to the methodology and utilise the already established code governance process. This governance allows for any proposed changes to the ECQ Methodology to be given full industry exposure by allowing discussion to take place at relevant workstreams therefore capturing all views."*

*In support of implementing Proposal 0054, NGNTS stated its continued belief "that the methodology outlined within the ECQ methodology statement remains the most appropriate for estimating the volume of gas that would otherwise have been offtaken. The Transporters have jointly issued a clarification note that outlines how the methodology will be applied and National Grid NTS would be happy to support any changes to the methodology statement that might provide further clarification in regard to the arrangements as a result of a request from any User." In respect of Alternative Proposal 0054a, NGNTS stated that it did not "oppose the underlying concept behind 0054a of incorporating an ECQ calculation process within the UNC but would only support such a Proposal were it to represent a reasonable, and non-discriminatory, estimate of the volume that would otherwise have been offtaken but for curtailment occurring."*

*NGUKD pointed out that the "governance advocated in proposal 0054 may be subject to amendment by majority agreement of the UNC Committee and is an appropriate level of governance to apply to a document which essentially details the basis by which a calculation is undertaken. Where the committee is unable to agree to an amendment, a proposed change could be raised and processed as a UNC modification proposal. Implementation of proposal 0054 would allow "light" governance of the statement where parties are in agreement, or full governance with Ofgem adjudication, where the proposed amendment does not receive committee approval, or indeed, even just if the proposer so desires." NGUKD also stated in respect of Alternative Proposal 0054a that "implementation is at this stage is unnecessary as full incorporation of the ECQ statement would mean that should a party wish to change the calculation methodology, a UNC modification proposal would be the only means all changing any of the content. The arrangement detailed in proposal 0054 presents the most complete range of options for governance over the methodology and implementation would be consistent with the governance arrangements established by the implementation of Modification Proposal 0730 to the Network Code Implementation would introduce a strict hierarchy in to the calculation where now exists an element of discretion. This feature could be useful bearing in mind the infrequency at which these arrangements would take effect and the events that would be occurring while the calculation was being undertaken."*

*SGN in support of implementing Proposal 0054, suggested that this Proposal "aimed at improving transparency and providing a more inclusive and robust governance process by:*

- formally recognising the ECQ Methodology Statement as a UNC ancillary document*
- providing that changes be made following approval by Panel Majority of the UNC Committee*
- ensuring that current versions of the document are published via the Joint Office."*

*In contrast, SGN did not support the proposals set out in Alternative Proposal 0054a as it did "not believe there would be significant additional benefit in having the ECQ Methodology incorporated within the UNC. The ECQ Methodology does not in itself set*



*out 'commercial terms'. It merely sets out a calculation method. Commercial aspects are already set out in the UNC and open to modification."*

**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. SGN pointed out that it was *"not clear that this work could be completed for this winter."*

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

The proposers have suggested immediate implementation.

SGN pointed out that it was *"not clear that this work could be completed for this winter."*

**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**

At the Modification Panel Meeting held on 19 January 2006, of the 8 Voting Members present, capable of casting 8 votes, 8 votes were cast in favour of implementing Modification Proposal 0054. Therefore the Panel recommend implementation of Proposal 0054. At the same meeting of the Panel of 8 Voting Members present, capable of casting 8 votes, 5 votes were cast in favour of implementing Alternative Proposal 0054a. Therefore the Panel recommend implementation of Alternative Proposal 0054a.

The Panel then proceeded to a vote on which of the two Proposals would better facilitate achievement of the Relevant Objectives. Of the 8 Voting Members present, capable of casting 8 votes, 5 votes were cast in favour of implementing the Alternate Modification 0054a in preference to Modification Proposal 0054. Therefore the opinion of the Panel is that implementation of Alternative Proposal 0054a would better facilitate the achievement of the Relevant Objectives.

**18. Transporter's Proposal**

This Modification Report contains the Transporter's proposal not to modify the Code in respect of either the original or alternative Modification Proposals and the Transporter now seeks agreement from the Gas & Electricity Markets Authority in accordance with this report.



## 19. Text

### UNIFORM NETWORK CODE - TRANSPORTATION PRINCIPAL DOCUMENT

#### SECTION Q - EMERGENCIES

*Insert the following as a new paragraph 6.4:*

##### **“6.4 ECQ Methodology**

6.4.1 Each User’s Emergency Curtailment Quantity for a Gas Flow Day shall be calculated using the methodology set out in this paragraph 6, and shall (subject to paragraph 6.4.6) be determined as the sum of the amounts determined by the following paragraphs in respect of each System Exit Point for which the User is a Registered User and in respect of which Emergency Curtailment has occurred.

6.4.2 For each System Exit Point in respect of which Emergency Curtailment has occurred and in respect of which an Offtake Profile Notice has been submitted, the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated on the basis of the rates of offtake specified in the Offtake Profile Notice for the period in which the Emergency Curtailment occurred.

6.4.3 For each System Exit Point in respect of which Emergency Curtailment has occurred and in respect of which no Offtake Profile Notice has been submitted, but an Output Nomination or Renomination has been submitted, then the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated on the basis of the Nomination Quantity divided by 24 and multiplied by the number of hours remaining in the Gas Flow Day from the commencement of the Emergency Curtailment.

6.4.4 For each System Exit Point in respect of which Emergency Curtailment has occurred and in respect of which no Offtake Profile Notice or Nomination or Renomination has been submitted, then the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated as follows:

- (a) if the System Exit Point was not subject to Emergency Curtailment on the Gas Flow Day falling 7 Days prior to the Gas flow Day in question (“D-7”), the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated as an amount equal to the quantity of gas offtaken at the System Exit Point on D-7 during the equivalent period in D-7 as the period in the Gas Day on which the Emergency Curtailment in question occurred; or
- (b) if the System Exit Point was subject to Emergency Curtailment on D-7 but if the System Exit Point was not subject to Emergency Curtailment on the Gas Flow Day falling 14 Days prior to the Gas flow Day in question (“D-14”), the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated as an amount equal to the quantity of gas offtaken at the System Exit Point on D-14 during the equivalent period

- in D-14 as the period in the Gas Day on which the Emergency Curtailment in question occurred; or
- (c) if the System Exit Point was subject to Emergency Curtailment on D-7 and on D-14 but if the System Exit Point was not subject to Emergency Curtailment on the Gas Flow Day falling 21 Days prior to the Gas flow Day in question (“D-21”), the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated as an amount equal to the quantity of gas offtaken at the System Exit Point on D-21 during the equivalent period in D-21 as the period in the Gas Day on which the Emergency Curtailment in question occurred; or
- (d) if the System Exit Point was subject to Emergency Curtailment on D-7 and on D-14 and on D-21, the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated as an amount equal to the quantity of gas offtaken at the System Exit Point on the first Gas Flow Day (the “**relevant Day**”) prior to the Gas Flow Day in question (but not earlier than D-21) on which no Emergency Curtailment occurred in respect of that System Exit Point during the equivalent period in the relevant Day as the period in the Gas Day on which the Emergency Curtailment in question occurred; or
- (e) if the System Exit Point was subject to Emergency Curtailment on each of the 21 Gas Flow Days preceding the Gas Flow Day in question, the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be deemed to be zero.

6.4.5 For each System Exit Point in respect of which Emergency Curtailment has occurred and in respect of which no Offtake Profile Notice or Nomination or Renomination has been submitted and no historical data is available to permit the calculation pursuant to paragraph 6.4.4, then the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be calculated as follows:

$$\text{ECQ} = \text{RSPC} * (\text{CD}/24) * \text{CR}$$

Where:

ECQ is the User’s Emergency Curtailment Quantity for the System Exit Point in question (in kWh);

RSPC is the Registered Supply Point Capacity at the System Exit Point in question (in kWh);

CD is the duration of the Emergency Curtailment for the Gas Day in question in respect of the System Exit Point in question (in hours). For the avoidance of doubt, CD shall never be greater than 24; and

CR is an amount equal to the Aggregate Forecast Demand for all System Exit Points other than NDM and Priority Supply Points divided by the sum of RSPC for all System Exit Points other than NDM and Priority Supply Points).

6.4.6 In respect of any System Exit Point at which Emergency Curtailment occurred which is a Shared Supply Meter Point, the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be

apportioned amongst the Registered Users of such System Exit Point on the basis of an allocation methodology provided by the Registered Users (or agent on behalf of the Registered) to the relevant Transporter following notification that Emergency Curtailment was required at the System Exit Point in question. In the absence of an allocation methodology, the quantity of gas that would have been offtaken in respect of such System Exit Point but for the occurrence of Emergency Curtailment shall be apportioned equally amongst the Registered Users of such System Exit Point.”

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, Office of Gas Transporters**

Signature:

Date :