CODE MODIFICATION PROPOSAL No. 0054a
"Modification to Codify Emergency Curtailment Quantity (ECQ) Methodology"
Version 2.0

Date: 09/11/2005

Proposed Implementation Date:

Urgency: Non-Urgent

Proposer's preferred route through modification procedures and if applicable, justification for Urgency

(see the criteria at http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/2752_Urgency_Criteria.pdf)

This proposal is raised as an alternate to Transco's UNC Modification proposal 054 and consistent with paragraph 6.4.1 of the Modification Rules, should proceed through the modification process together with the original proposal.

Nature and Purpose of Proposal (including consequence of non implementation)

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.

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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) **VLDMC System Exit Points**	The quantity will be calculated as the Users operational nomination provided by the interconnector or storage agent. 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/SFN is provided then the calculation methodology for non-OPN System Exit Points will be used. 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

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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-1, use D-1 otherwise…~~
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.

$RSPC_i$ ~ 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)

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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 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.

a.   Proposed implementation timetable

In accordance with paragraph 6.4.1 of the Modification Rules, this proposal should proceed through the modification process together with the original proposal.

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Basis upon which the Proposer considers that it will better facilitate the achievement of the Relevant Objectives, specified in Standard Special Condition A11.1 & 2 of the Gas Transporters Licence

This alternative proposal will 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.

Any further information (Optional), likely impact on systems, processes or procedures, Proposer's view on implementation timescales and suggested text

Code Concerned, sections and paragraphs

UNC TPD
Section Q – Emergency Arrangements

Proposer's Representative

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Proposer

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Signature

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