

**UNC Workgroup 0407 Minutes**  
**Standardisation of notice periods for offtake rate changes for all**  
**National Grid NTS Exit Users**  
**Wednesday 12 December 2012**  
**31 Homer Road, Solihull B91 3LT**

**Attendees**

Bob Fletcher (Chair)	(BF)	Joint Office
Lorna Dupont (Secretary)	(LD)	Joint Office
Alison Chamberlain	(AC)	National Grid Distribution
Andrew Finch	(AF)	National Grid Distribution
Bethan Winter	(BW)	Wales & West Utilities
Brian Kruger	(BK)	GL Noble Denton
Chris Shanley	(CS)	National Grid NTS
Colette Baldwin	(CB)	E.ON UK
David Mitchell	(DM)	Scotia Gas Networks
Eddie Blackburn	(EB)	National Grid NTS
Emma Buckton*	(EB1)	Northern Gas Networks
Harvey Beck*	(HB)	Ofgem
Jakob Forman*	(JB)	DONG Energy
James Whiteford	(JW)	National Grid NTS
Keith Owen*	(KO)	Northern Gas Networks
Lorna Millington	(LM)	National Grid Distribution
Ritchard Hewitt	(RH)	National Grid NTS
Robert Cameron-Higgs	(RCH)	Wales & West Utilities
Tony Perchard	(TP)	GL Noble Denton

*\*via teleconference*

*Copies of all papers are available at: [www.gasgovernance.co.uk/0407/121212](http://www.gasgovernance.co.uk/0407/121212)*

*The Workgroup Report is due to the UNC Modification Panel by 21 February 2013.*

**1.0 Review of Minutes and Actions**

The minutes of the previous meeting were accepted. There were no actions outstanding.

**2.0 Analysis**

This proposal aims to standardise the contractual clauses that govern the different categories of User that vary offtake rates with National Grid NTS. The removed Offtake Arrangement Document (OAD) clauses align the rules under which National Grid Transmission (NTS), Gas Distribution Networks (DNs) and Direct Connects (DCs) operate. The proposed clauses remove this two tier, discriminatory approach that impacts on DN's and potential new DCs.

## 2.1. GL Noble Denton Analysis

TP gave a presentation on the analysis, outlining the design margin and the data used, quantifying the deviation from the rule and assessing the impact in terms of resultant changes to NTS linepack.

It was observed that the acceptance of non-compliant OPNs was not really a surprise as this was while operating away from Peak conditions.

The current 2hr/5% rule was explained, an example OPN submission timeline was illustrated and the effects of a single 'compound' OPN and multiple OPNs were examined. The rule applies to consecutive OPNs; and OPN should be submitted each hour to increase by 5%; compounding of the rule has been applied in this analysis.

Breaching (frequency and volume) of the rule was considered, and breaches by LDZ/month were illustrated.

The NTS Linepack depletion effect and how it compounded was illustrated through various graphs.

BW questioned the percentage error shown for an LDZ, which was confirmed as correct. BW remained to be convinced and suggested that appropriate data be shared for consideration.

Slides 15 and 16 illustrated three different behaviours across the LDZs; the extreme values were the outliers seen on previous charts. Looking at Slide 17, changes were expected up to +/-5%. A couple of LDZs showed significant deviation outside of the 5% rule.

Current performance versus the rule was summarised. More often than not the 2-hour notice period was breached; there may be some slight mis-interpretation of the rule to stay within the 5% by changing it early. In most cases it was believed the rule could be adhered to. The 2hr/5% rule often breached when there is no need to achieve End Of Day (EOD) volume; the NTS is routinely providing capability over and above the 2hr/5% rule. In this instance the NTS linepack depletion effect is 6mcm for 95% coverage (excluding April) where the data provide may contain errors, which need to be reviewed.

Removal of the rule, and potential effects, was then considered. Assumptions were explained and potential effects illustrated with various graphs; a comparison of NTS Linepack depletion with and without the Rule was made. It was noted that the OPN that is submitted leads to more linepack depletion than the pseudo OPN. Responding to a question from RCH, TP said if the assumption was that the OPN was submitted because of an EOD change the effect is similar to a linepack depletion.

Effects of removing the rule were summarised. There was uncertainty about how behaviour may change if the rule was to be removed; the expectation may be a behaviour change and starting to ramp up earlier. Based on simple assumption of how OPN may change the NTS linepack depletion effect is 7mcm for 95% coverage (excluding April).

Retrospective OPN changes were then considered (ignoring the forward effect and looking backwards) and illustrated, with a timeline and comparative graphs. It was noted that retrospective changes more closely reflect actual volumes.

Looking at Slides 24 and 25 two behaviours were observed – a fairly consistent level, and some LDZ step changes. There was a brief discussion referring to certain OAD tolerances and other factors that may affect NTS linepack depletion (outside of Modification 0407). Slide 26 demonstrated the size of retrospective changes; significant linepack depletion was noted again. Looking at Slide 27, retrospectivity was observed to have more effect in October.

Summarising the retrospective analysis, it was noted that the NTS linepack depletion

due to retrospective OPN changes is greater than future changes. The additional NTS linepack depletion effect is 9mcm for 95% coverage.

Moving on to consider the combined effect of retrospective changes and rule removal on NTS Linepack depletion, this was then illustrated together with its effect over 12 months. Looking at Slides 29 and 30 it was noted to be up to 30mcm at peak in October.

Concluding the presentation TP summarised the observations from all 4 analysis scenarios.

*Current Performance* - The 2-hour notice period is causing problems and is breached more often than not. Other factors can influence LDZ behaviour. The NTS linepack depletion effect is 6mcm for 95% coverage (excluding April).

*Potential Impact of Rule Removal* - The NTS linepack depletion effect is 7mcm for 95% coverage (excluding April).

*Current Impact of Retrospective OPN Changes* - The NTS linepack depletion effect is 9mcm for 95% coverage.

*Combined Impact of Rule Removal and Retrospective OPN Changes* - The NTS linepack depletion effect is 14-15mcm for 95% coverage.

TP confirmed that NTS Connects were completely excluded from the analysis, which had been restricted just to LDZ Offtakes.

BW would like to see a few examples of where the big numbers have come from as this currently did not fit with her perception of an individual LDZ. TP and BK explained their findings and the subtleties that they had considered, however BW remained surprised by the LDZ profiles indicated in the analysis. TP added that the scatter graphs were aggregated to NTS level and that was why the numbers are higher, they were not specific to an LDZ. BW was reassured by this point, though thought it would be beneficial if this were explained in the slides.

## **2.2. National Grid NTS' Initial Thoughts**

CS presented National Grid NTS' initial thoughts concerning GL Noble Denton's analysis. There were implications for Modification 0407 and also wider considerations in relation to the NTS Design Margin, NTS's approach to flow change requests, accuracy and timing of OPNs; and a requirement to consider the development, in the medium-term, of commercial solutions for all NTS System Points, and a need to develop Total System options to deliver Customer requirements.

CS outlined considerations perceived necessary for each of the areas identified, and these were discussed.

### *NTS Design Margin*

To increase the Design Margin from its current level at 2% to between 5% and 7% the cost could be between £500m and £1.4bn.

BW asked if Modification 0407 did not go through, would NTS stick to 2%? EB responded that there still needed to be demonstrable evidence that the system should stay with that and could operate at Peak conditions with the rule in place and being adhered to. The 2-hour notice period is expected to be complied with at close to Peak conditions; away from Peak it is not such an issue.

Given that the DNs breach this, RCH asked should the Design Margin be higher? RH asked on a Peak day would the DNs comply with the UNC rule? BW pointed out that a

Peak day had not been seen, but reliance should not be placed on DNs suddenly sending in compliant OPNs on a Peak day, it would be advisable to use planning assumptions based on actual behaviours. LM believed that DNs would be less likely to be compliant on a Peak day in order to protect their networks. Flat would be less likely to be seen. BW referred to the restrictive use of flex – it was needed for balancing over/under. If it was booked the DN was prevented from changing it because of this rule.

EB would expect to see a relationship between flex, demand levels and pressures. It won't be possible to offer flexibility and maintain constant pressures.

BW observed that a DN's performance at Peak is likely to be the same as the rest of the year. CS indicated that further analysis would have to be carried out on the impacts to the Design Margin. RCH asked if the DNs were to comply with the rule would NTS need to examine anything further. EB indicated the Design Margin needed to be kept under review; the analysis had looked at the potential effects of Modification 0407, the results of which could be between 6mcm and 15 mcm, which if the NTS were to increase its investment to meet, it would be underlining non-reliance on the rule at Peak conditions. RCH suggested other contractual tools might be used. EB reiterated that whether the Modification 0407 went through or not, the Design Margin needed to be kept under review.

#### *NTS's approach to flow change requests*

It was recognised that it was more of a Peak demand type of issue and extremely rare, but may become less rare in the future.

#### *Accuracy and timing of OPNs*

CS observed that good information is quite critical for processes to work efficiently and effectively. There have been meetings to improve all types of DN and NTS performance. The ability is there to reject OPNs if necessary, and if 'difficult days' are experienced over winter this may happen.

#### *Medium-term commercial solutions for all NTS System Points*

CS indicated that this is likely to be a broader piece of work next year to review a wider total system commercial solution. It will look at analysing network capability and what scenarios might be faced in the future, eg if wind stops, gas generation will be triggered and will need to be able to ramp up quickly.

#### *Development of Total System options*

CS believed there might be potential shorter-term solutions, and these were briefly outlined.

Concluding the presentation CS asked if DNs had views on potential workable alternatives.

Offtake Pressures were discussed. LM observed this was 'Catch 22' as pressures were agreed, however NTS could reduce the pressure following a notification to the DN. AF added that obligated pressures needed to be stable; it would not be a long-term solution as demand changes every year. Inlet pressures needed to be realistic – this could be discussed to clarify what should be designed for.

RH asked the Workgroup to consider the best solution for in day storage capability on the combined system – where should it be? Is it necessary to spend £millions to invest in the ground – is it logical to have spend so much money on this level of requirement under Modification 0407.

BW reiterated the issue raised under Modification 0407. EB observed that a '1-in-20' flow variation was taken into account through the Design Margin. BW believed that NTS's assumptions should be questioned and reassessed to see if they are still relevant

and realistic. RH pointed out that NTS would not invest more to meet what is non-compliance with the rules. If commercial contract clauses were not met then NTS will have to readdress the situation with all customers to achieve a total system solution. EB added that GL's analysis/impact was being looked at and the cost of delivering a solution to that was being considered. Consideration was being given to what was required in a position close to Peak conditions and what investment might be needed for linepack. Ways to reduce costs were being identified. It is possible that the rule can be waived at specific times because of linepack and unutilised capacity, however, this should not be seen as the most cost efficient option. The question is who is best placed to build in the flexibility? There may be options for commercial solutions between the parties involved.

If Modification 0407 was removed the DNs would still be constrained the same as NTS direct connects.

CS would welcome the DNs' views on obligated capacity levels. RCH asked if altering the Design Margin as it currently sits be an option? If it should be different then other debates might be required?

BW reiterated that the assumptions in respect of the Design Margin and the level of compliance/non-compliance that can be expected should be reviewed.

EB believed the DNs might be able to comply with the rule close to Peak conditions; if they believe they categorically cannot comply then the position needs to be reviewed and NTS needs to know this as soon as possible. RH urged the DNs to inform NTS of what they can/cannot do so that he can take appropriate action to address the position.

A total system solution is required going forward that can address the impact of any future DN connects to the system. RH suggested that commercial solutions could be considered involving utilisation of the service and those parties who actually used it.

RH had discussed Modification with Julie Cox (EnergyUK) and it was suggested that regular updates on Modification 0407 should be provide to a wider audience, ie the Transmission Workgroup.

RCH referred to the RIIO submission (figures and flexibility) and asked if Modification 0407 benefits from these investments. EB gave a brief explanation, indicating that a lot of flex might be able to be met through commercial solutions, and shaving down the physical solutions.

### **2.3 GDN Cost Analysis**

RCH gave a presentation covering the impact of the current OAD rules, the consequences of not changing the rules, and the impact of compliance, not just on DNs and NTS but also existing and potential connectees.

The current rules had effectively placed all 13 LDZs in a non-compliant position since 2005 (Network Sales), and throughout this period National Grid NTS had not rejected any related DN OPNs.

Receipt of a number of new enquiries proposing to connect to LDZ networks has necessitated a review of the position, as the DNs do not wish to connect new sites and thereby be seen to be deliberately compounding a recognised problem. RCH explained that for various physical and commercial reasons (outlined) it is not feasible under the current rules to proceed with /promote any active connections.

Having carried out an assessment of costs that would be involved for DNs to comply with current rules it is believed that the extreme LDZ Storage Deficit would make the investment costs to avoid non-compliance excessive and beyond any sensible assessment (and introduces a risk of stranded assets as the LDZ storage would not

benefit other LDZs or customers). This was assessed on the required DN Investment to comply with 2 hour 5% rule, based on cost of £1,000,000 per kilometer of pipe (for storage).

*For 'GDN1' the Storage shortfall was circa 0.33mcm and this would indicate a required Storage Investment of £ 38.5m.*

*For 'GDN2' the Storage shortfall was circa 2.01mcm and this would indicate a required Storage Investment of £234.5m.*

*For 'GDN3' the Storage shortfall was circa 0.53mcm and this would indicate a required Storage Investment of £61.9m.*

*For 'GDN4' the Storage shortfall was circa 0.17mcm and this would indicate a required Storage Investment of £19.8m.*

To remedy the current position, total DN costs to be able to comply with OAD 2 hour 5% rule, whilst allowing existing sites to participate in (for example) Electricity Balancing market, for the 4 DNs was assessed to be circa £355m. Further investments in addition to this figure would be required to allow any new large connectees to opt to connect to the LDZs without being discriminated against by a far more onerous set of commercial/contractual terms than those existing for connectees to the NTS.

EB referred to contracts being amended to reflect what might be required in different circumstances – customers may have different a view on these. He was struggling to understand why flexibility does not go down if DNs are building diurnal storage into their capabilities – this should result in a lower requirement? Perhaps this needed to be looked at in terms of current obligations/capabilities to gain a greater understanding of what parameters might be reviewed.

### **3.0 Finalisation of Workgroup Report**

BF explained the Workgroup process, drawing attention to the requirement to submit the Workgroup's Report to the February UNC Modification Panel. Wales & West Utilities will need to provide the appropriate legal text and a cost estimate will be required to fully inform any consultation. These should be provided by 21 January 2013 for the Workgroup to review at the next meeting (29 January 2013).

It was recognised that some solutions might be outside of UNC (eg Licence). RCH indicated that the Regulator's view would be welcomed to give a broad indication on the direction this might go. RH observed that the magnitude of the changes that were beginning to be perceived to be required was starting to point to a potential SCR. HB agreed that it had developed into a major issue and that it should be aired at the Transmission Workgroup. He would like to see the cost estimates fleshed out by the DNs and NTS and to understand how these had been arrived at. In his view it should be progressed as soon as possible and has indeed opened up other issues.

New Actions:

**0407 1201: Cost Impacts – DNs and NTS to review the accuracy of costs and to identify any other potential options that might be available other than a pipeline build**

**0407 1202: DNs to give views on any other options to be considered, eg reducing obligated capacity levels at Offtakes, and identify any consequential effects.**

**0407 1203: Modification 0407 to be outlined to a wider audience (Transmission Workgroup 10 January 2013) and views sought to be captured in the Workgroup Report.**

**4.0 Any Other Business**

None raised.

**5.0 Diary Planning for Review Group**

Further details of planned meetings are available at: [www.gasgovernance.co.uk/Diary](http://www.gasgovernance.co.uk/Diary)

The next Workgroup meetings:

10 January 2103 and will be accommodated within the business proceedings of the Transmission Workgroup at Elexon, 350 Euston Road, London NW1 3AW.

29 January 2013 and will be accommodated within the business proceedings of the Offtake Arrangements Workgroup at 31 Homer Road, Solihull B91 3LT.

**Workgroup 0407 - Action Table**

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
0407/1201	12/12/12	3.0	Cost Impacts – DNs and NTS to review the accuracy of costs and to identify any other potential options that might be available other than a pipeline build	NTS and DNs	Pending
0407/1202	12/12/12	3.0	Give their views on any other options to be considered, eg reducing obligated capacity levels at Offtakes, and identify any consequential effects.	DNs	Pending
0407/1203	12/12/12	3.0	Modification 0407 to be outlined to a wider audience (Transmission Workgroup 10 January 2013)	JO	Pending