UNC Draft Modification Report	At what stage is this document in the process?

UNC 0619 0619A 0619B:

Application of proportionate ratchet charges to daily read sites

Protection from ratchet charges for daily read customers with an AQ of 73,200kWh and below

Application of proportionate ratchet charges to daily read sites

01 Modification

02 Workgroup Report

03 Draft Modification Report

04 Final Modification Report

Purpose of Modification:

Modification 0619 proposes to change the current ratchet regime so that the charge levied will reflect the costs avoided by the customer by understating its peak daily offtake.

Modification 0619A proposes to protect any daily metered customer with an AQ of 73,200kWh and below from the charging elements of the existing ratchets regime.

Modification 0619B will change the current ratchet regime so that the charge levied will reflect the costs avoided by the customer by understating its peak daily offtake.

	This Draft Modification Report is issued for consultation responses at the request of the Panel. All parties are invited to consider whether they wish to submit views regarding this modification. The close-out date for responses is 01 March 2018, which should be sent to enquiries@gasgovernance.co.uk. A response template, which you may wish to use, is at /www.gasgovernance.co.uk/0619. The Panel will consider the responses and agree whether or not this modification should be made.
	High Impact: Shipper Users and Transporters
	Medium Impact: N/A
	Low Impact: N/A

Contents

Timetable

Modification timetable:	
Initial consideration by Workgroup	25 May 2017
Amended Modification considered by Workgroup	05 January 2017
Workgroup Report presented to Panel	18 January 2018
Draft Modification Report issued for consultation	18 January 2018
Consultation Close-out for representations	01 March 2018
Final Modification Report available for Panel	02 March 2018
Modification Panel decision	15 March 2018

Any questions?

Contact:
Joint Office of Gas Transporters

enquiries@gasgovernance.co.uk

0121 288 2107

Proposer
0619:
Steve Mulinganie
0619A:
Hilary Chapman
0619B
Andrew Margan

steve.mulinganie@gazprom-energy.com
Hilary.Chapman@SGN.co.uk
andrew.margan@centrica.com

07990 972568
07749983418
07789 577327

Transporter:
Wales & West Utilities

Richard.Pomroy@wwutilities.co.uk

029 2027 8552 or 07812 973337

Systems Provider:
Xoserve

commercial.enquiries@xoserve.com

1 Summary

What

As part of the Project Nexus Solution, Product Class 1 and 2 sites will be subject to the ratchet regime.

UNC0619 seeks to remove the 'penalty effect' of the ratchet charge regime for these customers otherwise a disproportionate penal charge would be levied on sites that breach their stated daily system offtake rate, even though they do not represent a risk to the management of the system by doing so.

UNC0619A seeks to restrict the charging element of the regime to apply to customers with an AQ above 73,200 kWh, therefore offering protection from the charges for customers under this threshold who opt to become daily metered.

UNC0619B seeks to remove the penalty Ratchet charge, but maintain a proportional incentive charge to ensure there is accurate SOQ capacity booking.

Why

The industry is rolling out Smart and Advanced metering across the entire market allowing Shippers, Suppliers and Customers ready access to more granular consumption information remotely. At the same time Project Nexus is introducing new Product Classes.

These new Product Classes (1 to 4) allow market participants the ability to provide more granular consumption (read) data into central systems thus driving more accurate and targeted settlement.

UNC0619 notes that the proposed arrangements for market operation post Nexus Go Live and potential disincentives for the use more granular Product Classes, the application of Ratchet Charges seems disproportionate.

If the ratchet charge regime is not reformed so that the ratchet costs levied are proportionate then the number of sites that may elect to become daily read will be severely limited, reducing settlement accuracy and hampering the development of innovative granular market products. For those sites that do elect to become daily read, Shippers are likely to continue to have to over-estimate peak capacity needs, resulting in an inflated and distorted view of peak system requirements.

UNC0619A notes that the Product Classes allow market participants the ability to provide more granular consumption (read) data into central systems and where Remote Meter Reading Equipment[1] is installed, creates greater opportunity for a small consumer to be classified as a daily metered site, and benefit from daily settlement through the presence of a Smart meter. Previously, such customers would not have been subject to the ratchets regime. However, as part of the post-Nexus arrangements, such a customer could now be placed into Product Class 2 (non-mandatory daily read) and would therefore be subject to all elements of the ratchet regime.

UNC0619B seeks to remove a penalty charge, to better improve Transportation cost reflectivity, whilst also seeking to ensure an incentive exists, which drives appropriate SOQ booking behaviour to ensure the network is protected, whilst not penalising end consumers.

[1] UNC TPD Section M1.5.2(k)

How

UNC0619 proposes that the calculation process for the Supply Point Ratchet Charge is changed so that the charge is based on the difference in transportation charges that would be derived from the new peak (ratchetted) daily offtake and the previous peak daily offtake. The transportation charges that a supply point would incur if had not ratcheted will be netted off the Supply Point Ratchet Charge.

The net impact of these changes would be to turn the Supply Point Ratchet Charge into a corrective invoice where the supply point is invoiced for the capacity costs it avoided by having a supply point offtake set too low. In order to ensure that the costs of the change are manageable, no other changes to the ratchet regime are proposed, such as changing the period for which a ratchet charge can be incurred.

UNC0619A proposes that application of the charging element of the ratchets regime is restricted to customers above 73,200kWh thus protecting customers below this threshold. The justification for setting this threshold is provided in the 'Why Change' section.

For the avoidance of doubt, for those sites to which the full regime still applies, no changes to the existing process or charges are proposed.

UNC0619B aligns with the original proposal of back charging to the new SOQ rate, but differs by applying an additional incentive charge. To ensure the total ratchet charge reflects the true cost, the DMSOQ cap is removed.

For clarity UNC0619B seeks to introduce a new ratchet charge calculation methodology, but it does not seek to amend the Ratchet Regime.

2 Governance

Justification for Self-Governance, Authority Direction or Urgency

These modifications might have a material impact as they are expected, for the customers impacted, to have a material impact on the commercial activities connected with shipping gas, or commercial activities related to, the shipping, transportation or supply of gas. They should therefore be sent to the authority for decision.

Panel determined these modifications are likely to have a material effect on commercial activities related to, the shipping, transportation or supply of gas or operation of one or more pipe-line systems because they propose material changes to these contractual arrangements and incentive regime used for Product Class 1 and 2 sites.

Modifications 0619, 0619A and 0619B will therefore follow Authority Direction procedures.

Requested Next Steps

These modifications should:

- Issued to consultation.

The workgroup considered the potential suitability of self-governance procedures for these modifications and agreed with the Panels determination, that these modifications are likely to have a material effect on commercial activities related to, the shipping, transportation or supply of gas or operation of one or more pipe-line systems because they propose material changes to these contractual arrangements and incentive regime used for Product Class 1 and 2 sites.

3 Why Change?

UNC0619 and UNC 0619B

The market is at the threshold of major change with a number of significant projects coming into effect as well as new initiatives such as next day switching being developed. The industry is rolling out Smart and Advanced metering across the entire market allowing Shippers, Suppliers and Customers ready remote access to more granular consumption information. In the Power market the Government is proposing that all consumers should be settled on 15 minute data.

At the same time, Project Nexus has introduced 4 new Supply Meter Point classes or Product Classes, which will allow market participants the ability to provide more granular consumption (read) data into central systems for all sites, thus driving more accurate and targeted settlement. As Product Class 1 and 2 are daily read products, they would be subject to the ratchet regime.

The application of ratchet incentive charges (which some consider to be penal) to daily read sites seems disproportionate considering the potential future utilisation of daily read submission by a wide range of customers, including SME, Micro business and Domestic consumers in Product Class 2, who have low consumption levels and it is believed do not represent a risk to the safe operation of the network. As it currently stands therefore the current regime is likely to limit the number of sites that will seek to be daily read as the risks of incurring ratchet charges will outweigh the settlement benefits.

For those sites that do elect to become daily read, it is likely that Shippers will continue (as they do now) to have to overestimate likely capacity requirements to minimise the risk of these ratchet charges being applied, resulting in an inflated view of peak system requirements which could lead to inefficient system investment.

UNC0619A

Industry Developments:

The industry is currently rolling out Smart and Advanced metering across the entire market allowing Shippers, Suppliers and Customers ready remote access to more granular consumption information.

At the same time, Project Nexus has recently introduced four new Supply Meter Point classes or Product Classes, which will allow market participants to select their preferred class and create the ability to provide more granular consumption (read) data into central systems. As Product Class 1 and 2 are daily read products, they are subject to the full extent of the ratchets regime. As above, it is widely accepted that small consumers are not considered to pose a significant risk to network management, and it is not considered appropriate that these customers be subject to the charging elements of the regime. This proposal therefore seeks to exclude these customers from the charging elements of the regime. For the avoidance of doubt, it is the intention of this proposal that the re-setting of the Supply Offtake Quantity (SOQ) is maintained for all customers, including those below the threshold.

Network Management Requirements:

The forecasting of demand is a critical network management activity. Robust empirical modelling enables the accurate forecasting of consumption for the majority of consumers with an AQ of 73,200kWh and below and this modelling can be validated to a high level of surety as the consumption is predominantly based on weather conditions. Contrastingly, the consumption of large sites with an AQ above 73,200kWh is predominantly based on customer behaviour and the commercial goals of the site in question. Such consumption cannot be modelled in an economically feasible way by the Transporter and there is a reliance on the Shipper making *"all appropriate enquires of the consumer"* and exercising *"reasonable skill and care"* in estimating the maximum offtake rate in accordance with UNC TPD Section G 5.3.3.

Uncertainty in forecasting rests in the DM market and in particular, in large DM sites. Therefore, obtaining appropriate market signals is essential as this directly affects the Transporter's ability to accurately forecast demand in the network.

Occurrences of Ratchets:

The following data analysis has been undertaken to demonstrate the ongoing occurrence of ratchets at sites with an AQ above 73,200kWh. Given that ratchets continue to occur at this level and frequency, it is considered that it is appropriate to maintain the regime in relation to higher consuming sites, whilst offering protection to those smaller consuming sites which were not previously subject to the regime.

Table 1: Ratchets incurred in 2015/16 Winter Period (all LDZs)

Year	Month	Number of Ratchets
2015	October	18
2015	November	29
2015	December	20
2016	January	39
2016	February	30
2016	March	23
2016	April	13
TOTAL		172

Table 1 demonstrates ratchets occurring on a national basis during the winter period 2015/2016[2]. As ratchets are observed to occur on a regular basis, this demonstrates that the full regime is still required for the higher consuming customers.

Scotia Gas Networks (SGN) has also undertaken evaluation of ratchets within its networks as follows[3]. The data suggests that the ongoing occurrence of ratchets demonstrates that procedures to encourage accurate SOQ management are still required, for the following reasons:

Table 2: Ratchets incurred by EUC Band for 2012-2016 Winter Periods (SGN LDZs only)

Ratchets by EUC		
EUC	Total	%age
Exx04	6	5%
Exx05	4	3%
Exx06	27	20%
Exx07	31	23%
Exx08	18	14%

[2] Data provided by Xoserve during development of UNC Modification 0571/A *Application of Ratchet Charges to Class 1 Supply Points (and Class 2 with an AQ above 73,200kWhs). P16 - https://www.gasgovernance.co.uk/sites/default/files/ggf/Workgroup%20Report%200571%200571A%20v2.0_0.pdf*

[3] Data provided by Xoserve, in relation to the winter periods 2012 - 2016

Exx09	46	35%
Grand Total	132	100%

Table 2 demonstrates that despite the presence of the ratchet charging regime, large consuming sites are still exceeding their SOQs.

Table 3: Ratchets incurred by individual sites as a % of overall DM population including average no. Ratchets incurred per site for 2012-2016 Winter Periods (SGN LDZs only).

	Column A	Column B	Column C	Column D	Column E
Winter Period	No. of Ratchet Events	No. of sites incurring ratchet	Average no. ratchets incurred per site	Total population. of DM sites	% DM sites incurring 1 or more ratchets
2012-13	31	16	1.9	293	5%
2013-14	34	11	3.1	276	4%
2014-15	34	16	2.1	277	6%
2015-16	33	19	1.7	260	7%

Table 3 demonstrates the following:

- Column A shows the number of individual ratchet events for the given winter period (within SGN LDZs only);
- Column B shows the number of sites across which the ratchets identified in column A have occurred;
- Column C shows the average number of ratchet events identified in column A across the number of sites identified in column B;
- Column D shows the total Daily Metered population (within SGN LDZs only);
- Column E shows the number of Daily Metered sites incurring ratchets, identified in Column B, as a percentage of the total Daily Metered population, identified by Column D.

Table 3 shows that large consuming sites consistently mis-estimate their consumption in each Winter period. Despite a decreasing DM population, the number of ratchet events and number of sites incurring them has remained stable. This indicates that it is reasonable to assume that a certain number of DM sites will use more gas than they have booked in each Winter period and that sites that should be actively managed are still mis-estimating their consumption.

Column C further shows that where a site does incur a ratchet, they are likely to incur more than one in the same Winter period and demonstrates the need for these sites to actively manager their consumption. Therefore, it is important that the existing regime is maintained for such large consuming sites.

Table 4: Ratchets incurred by Shipper for 2012-2016 Winter Periods as a percentage of total ratchets incurred (SGN LDZs only).

Winter Period	Ratchets	No of DM sites	%
2012-13	31	293	11%
2013-14	34	276	12%
2014-15	34	277	12%
2015-16	33	260	13%

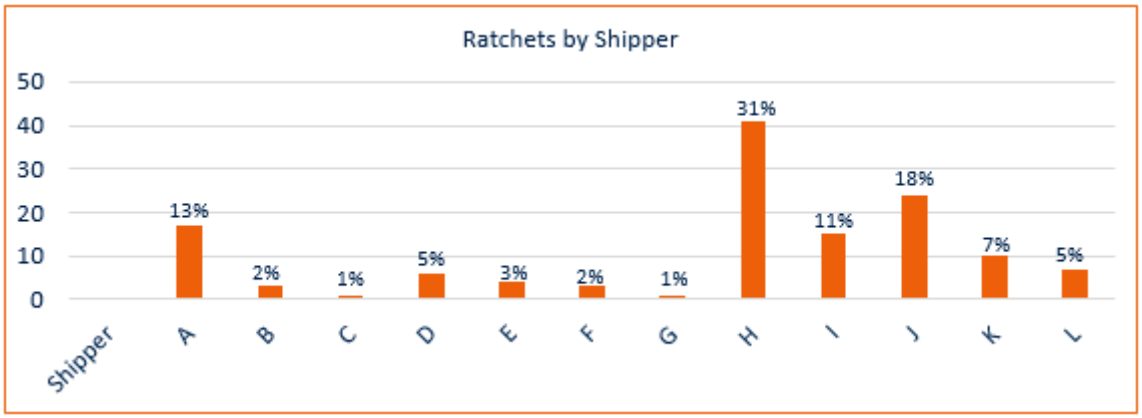


Table 4 shows that, of the 132 ratchets incurred by 12 Shippers within SGN's LDZs in the 2012-2016 Winter Periods, 73% (96) were incurred by just 4 Shippers. There is no correlation between the number of ratchets incurred by a given Shipper and their DM portfolio size. This indicates that some Shippers are more successful than others in terms of providing accurate market signals in the form of SOQs. This disparity is likely due to different internal Shipper processes in terms of making "*all appropriate enquiries of the consumer*" or exercising *"reasonable skill and care"* in setting SOQs, as required by UNC TPD Section G 5.3.3.

Additionally, there were a number of Shippers who were are able to provide accurate market signals on a consistent basis within this period and did not incur any ratchets, therefore indicating that there is a variance in individual Shipper processes relating to the management of SOQs.

4 Code Specific Matters

Reference Documents

None identified.

Knowledge/Skills

No specific skills or knowledge are necessary.

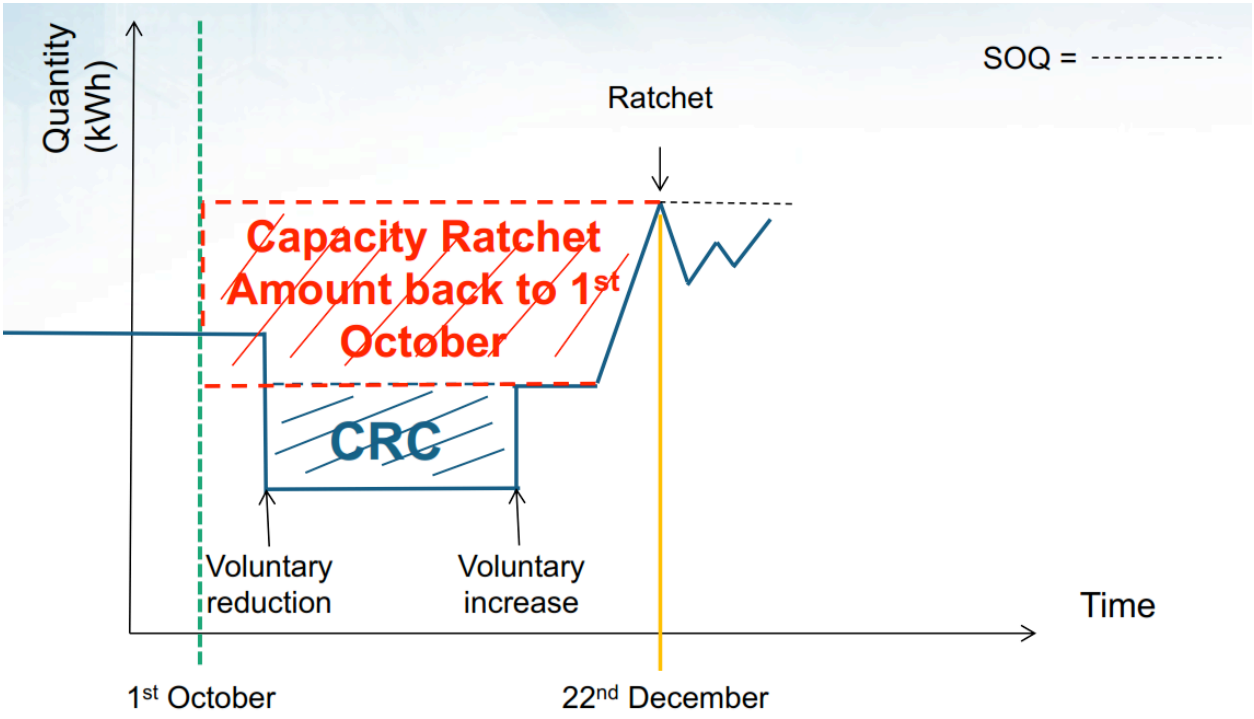
5 Solution

Comparison Table of Proposed Changes:

	0619	0619A	0619B
Introduce a new Ratchet Charge based on the additional SOQ	✔	X	✔
Introduce a new Ratchet Charge based on the additional SOQ + 10%	X	X	✔
Maintains Current Ratchet Charge	X	✔	X
No Ratchet Charges apply to sites with an AQ of or less than 73,200kWh	X	✔	X

UNC0619:

This modification proposes to change the ratchet charge calculation so that a site that does breach its supply point offtake incurs the same transportation charges for that higher capacity, without being unduly penalised. The intention of the modification is to ensure that customers who ratchet do not benefit from having not set their SOQ appropriately but are not unduly penalised either. The proposed change is set out below:



Source: Xoserve.

The current ratchet charge regime needs to be changed in four ways:

- The LDZ Capacity charge that the site has paid prior to the Supply Point Ratchet Charge will be netted off the Supply Ratchet Capacity Charge ("Capacity Ratchet Amount").
- A new charge, the Customer Capacity Ratchet Amount, will be levied to correct for the difference between the original and ratcheted LDZ Customer Charges.
- A new charge, the NTS Exit Capacity Ratchet Amount, will be levied to correct for the difference between the original and ratcheted LDZ Exit Capacity NTS (ECN) Charges.
- At present ratchet charges are not specifically linked to any settlement date, but is simply a lump sum linked is notionally linked to annual offtake. In order to ensure that the costs of the change are kept manageable, and because the network is unconstrained it is proposed that the Ratchet Regime will continue to apply for the period October to May inclusive and is linked to the ratchet charge to the date to ensure that the customer is charged in line with the principles set out above. The period for which the ratchet charge is applied is termed the "Ratchet Period".

Similarly, in order to keep the change manageable, it is not proposed to have a corrective charge for the LDZ Commodity Charges as any increase in SOQ caused by a ratchet will either have no effect, or slightly reduce the charge to the shipper. It is therefore not cost-efficient to reflect this minor benefit in the ratchet calculation.

Interaction with Provisional Maximum Supply Point Capacity

UNC TPDG 5.5 limits any increase to a Supply Point's capacity to the Provisional Maximum Supply Point Capacity, which is double the Prevailing Supply Point Capacity or 16 times the supply point offtake rate, until the Transporters notify the CDSP that it can be higher, i.e. the Maximum Supply Point Capacity. Though we do not believe that the UNC needs to be changed to give effect to this principle, for the avoidance of doubt the ratchet charge calculation would utilise the Maximum Supply Point Capacity in this circumstance.

Revised Ratchet Charge Calculation

The Ratchet Charge will be changed to reference three different types of transportation charges in its calculation.

Supply Point Ratchet Charge = LDZ Capacity Ratchet Amount + Customer Capacity Ratchet Amount + Exit Capacity Ratchet Amount

The components of the above calculation are calculated as follows (note that the new terms below are suggested terms and may vary in the final legal text):

- LDZ Capacity Ratchet Amount = (Annualised LDZ Capacity Charge after ratchet applied * Ratchet Charge Multiplier * Ratchet Period/365) –LDZ Capacity Charge that would be applicable immediately prior to the charge* Ratchet Period/365)
- Customer Capacity Ratchet Amount = (Annualised LDZ Customer Charge after ratchet applied * Ratchet Charge Multiplier * Ratchet Period/365) –LDZ Customer Charge that would be applicable immediately prior to the charge * Ratchet Period/365)
- NTS Exit Capacity Ratchet Amount = (Annualised LDZ Exit Capacity NTS (ECN) Charges after ratchet applied * Ratchet Charge Multiplier * Ratchet Period/365) –LDZ Exit Capacity NTS(ECN) Charge that would be applicable immediately prior to the charge* Ratchet Period/365)
- Ratchet Period = For sites other than Seasonal Large Supply Points, it is either the number of days between 1St October of the applicable gas year and the day before that the prospective ratchetted capacity applies on the LDZ Capacity invoice, or for new or shipperless supply points registered after 1st October of the relevant gas year, the supply point registration date. For Seasonal Large Supply Points the start point will be taken to be the Seasonal Contract Start Date.

Example

Site in the East Anglia LDZ, EA1 exit zone

	Unit rate	**Pre-ratchet (Annual)**	**Post-ratchet (Annual)**	**Annualised Difference**
AQ (kWh)		20,000,000	20,000,000	
SOQ (kWh)		100,000	150,000	
LDZ Capacity	$0.8855*SOQ^{-0.2155}$	£ 27,046.50	£ 37,175.25	£ 10,128.75
LDZ Commodity	$0.1815*SOQ^{-0.2376}$	£ 2,360.00	£ 2,140.00	N/A
LDZ Exit Capacity	$0.0689*SOQ^{-0.2100}$	£ 2,226.50	£ 3,066.00	£ 839.50
LDZ Customer Capacity	0.0052	£ 1,898.00	£ 2,847.00	£ 949.00
		£ 33,531.00	£ 45,228.25	£ 11,917.25

Assuming that the ratchet occurs on the 20th December then the 1st January (93 days after the 1St October) then the calculation is as follows:

	Calculation	Amount
Ratchet Period	93 days	
Capacity Ratchet Amount	10,128.75*93/365	£ 2,580.75
Customer Capacity Ratchet Amount	839.50*93/365	£ 213.90
NTS Exit Capacity Ratchet Amount	949*93/365	£ 241.80
Total		£ 3,036.45

For the avoidance of doubt this process does not impact the current provisions of TPD B4.7.12, which governs when a supply is liable for Supply Point Ratchet Charges after a class change.

Modification 0619A:

This modification seeks to restrict the current charging regime to sites with an AQ greater than 73,200kWh. Sites under this threshold would be protected from the current charging regime.

For the avoidance of doubt, all sites would continue to be subject to the automated increase of the SOQ following a ratchet.

Based on the current number of Supply Points within SGN's network areas with AQs above and below the threshold, this modification would protect 5.82m customers who account for approximately 60% of consumption from the charging elements of the regime.

Equitable Recovery of Capacity Charges

For sites under the threshold, the Supply Point Ratchet Charge[4] will not be applied. However, as no site should be in an advantageous positon by virtue of not having set their SOQ at an appropriate level, it is proposed that the Capacity Ratchet Amount[5] is invoiced. The Capacity Ratchet Amount is the amount by which actual gas offtaken from the system exceeds the User's Registered DM Supply Point Capacity.

Similarly, where a voluntary reduction in SOQ (an application resulting in a decrease of the Registered DM Supply Point Capacity[6]) is intimated by the Shipper and a ratchet subsequently occurs, the Capacity Reconciliation Charge[7] will apply as it does now so as to restore the site's capacity to the pre-reduction level and the Capacity Ratchet Amount will be invoiced so as to ensure the site appropriately pays for the excess capacity they have used.

For the avoidance of doubt, no changes are proposed to the existing arrangements for sites above the threshold.

Provisional Maximum Supply Point Capacity (PMSOQ)

[4] UNC TPD Section B 4.7

[5] UNC TPD Section B 4.7.2

[6] UNC TPD Section G 5.1.14

[7] UNC TPD Section G 5.1.14

Ratchet charges are inherently linked to the PMSOQ. Protecting customers under the threshold from the current charging regime removes the function of PMSOQ for these customers. As the PMSOQ effectively acts as a cap on capacity increases where a site has ratcheted to 16 times the original Supply Point Offtake Rate[8], removal of the ratchet charge for sites under the threshold could result in a site breaching their PMSOQ, not paying a Supply Point Ratchet Charge (as they are protected) and not having their capacity booking increased because it is already at the provisional maximum. Therefore, for sites under the threshold, it is proposed that code is amended such that any increase in a site's capacity booking up to the threshold is approved by the CDSP without the need for the CDSP to inform the Transporter.

This change to the PMSOQ for sites under the threshold does not alter or in any way lessen Shippers' obligations to set maximum offtake rates for DM sites *"in good faith and after all appropriate enquiries of the consumer and on the basis of reasonable skill and care"* as required by UNC TPD Section G 5.3.3.

For the avoidance of doubt, no changes are proposed to the existing arrangements for sites above the threshold.

Invoicing of Excess Capacity

Any excess capacity utilised, as defined by the Capacity Ratchet Amount, will be charged from the day the ratchet occurred and invoiced on an M+2 basis as is currently the case for ratchetted capacity invoicing.

For sites above the threshold, no changes to existing arrangements are proposed.

Prevailing AQ (Threshold Crossers)

In determining whether a site is subject to the current charging regime, the prevailing rolling AQ at the time the ratchet was incurred will be used and not the post-ratchet AQ.

Seasonal LDZ Capacity

For the avoidance of doubt, no changes are proposed to the existing arrangements for Seasonal LDZ Capacity and Seasonal Large Supply Points.

Modification Business Rules

- **Recovery of Capacity Charges:**

  Sites with a prevailing AQ ≤73,200kWh will be exempt from the Supply Point Ratchet Charge.

  The Capacity Ratchet Amount will be invoiced to ensure any site below the threshold pays for system capacity they have utilised in excess of their Registered DM Supply Point Capacity.

- **Capacity Reconciliation Charge (CRC):**

  The CRC will apply to sites where the Registered DM Supply Point Capacity has increased due to occurrence of a Supply Point Ratchet Charge following a Capacity Revision Application, within the current Gas Year, that decreased the Registered DM Supply Point Capacity (a 'voluntary reduction'). The CRC will apply so as to restore the site's capacity booking to the pre-reduction level.

- **Invoicing of Excess Capacity:**

[8] UNC TPD Section G 5.3.1. "The "Supply Point Offtake Rate" in respect of a DM Supply Meter Point is the maximum instantaneous rate (in kWh/hour) at which a User is permitted to offtake gas from the Total System at that Supply Meter Point."

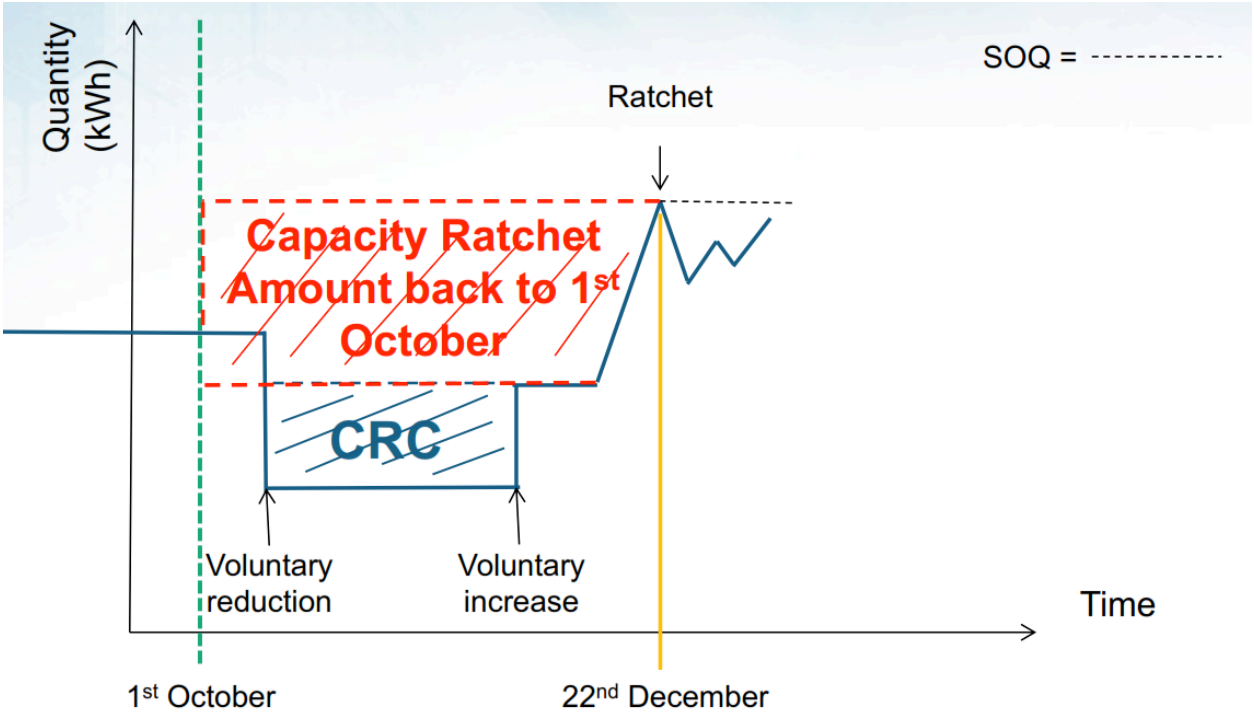
For sites under the threshold, the increased capacity booking is charged from the day the ratchet occurred and invoiced on an M+2 basis as is currently the case for ratchetted capacity invoicing.

- **PMSOQ:**

  For sites equal to and under the threshold, any increase in the site's capacity booking above the PMSOQ is approved by the CDSP without the need for the CDSP to inform the Transporter.

UNC0619B

This modification proposes to change the ratchet charge calculation so that a site that does breach its supply point offtake incurs the same transportation charges for that higher capacity, without being unduly penalised. The intention of the modification is to ensure that customers who ratchet do not benefit from having not set their SOQ appropriately but are not unduly penalised either. The proposed change is set out below:



Source: Xoserve.

The current ratchet charge regime needs to be changed in four ways:

- The LDZ Capacity charge that the site has paid prior to the Supply Point Ratchet Charge will be netted off the Supply Ratchet Capacity Charge ("Capacity Ratchet Amount").
- A new charge, the Customer Capacity Ratchet Amount, will be levied to correct for the difference between the original and ratcheted LDZ Customer Charges.
- A new charge, the NTS Exit Capacity Ratchet Amount, will be levied to correct for the difference between the original and ratcheted LDZ Exit Capacity NTS (ECN) Charges.
- A new charge, the Ratchet Incentive Charge, will be levied in addition to the above charge types
- At present ratchet charges are not specifically linked to any settlement date, but is simply a lump sum linked is notionally linked to annual offtake. In order to ensure that the costs of the change are kept manageable, and because the network is unconstrained it is proposed that the Ratchet Regime will continue to apply for the period October to May inclusive and is linked to the ratchet

charge to the date to ensure that the customer is charged in line with the principles set out above. The period for which the ratchet charge is applied is termed the "Ratchet Period".

Similarly, in order to keep the change manageable, it is not proposed to have a corrective charge for the LDZ Commodity Charges as any increase in SOQ caused by a ratchet will either have no effect, or slightly reduce the charge to the shipper. It is therefore not cost-efficient to reflect this minor benefit in the ratchet calculation.

Interaction with Provisional Maximum Supply Point Capacity

UNC TPDG 5.5 limits any increase to a Supply Point's capacity to the Provisional Maximum Supply Point Capacity, which is double the Prevailing Supply Point Capacity or 16 times the supply point offtake rate, until the Transporters notify the CDSP that it can be higher, i.e. the Maximum Supply Point Capacity. Though we do not believe that the UNC needs to be changed to give effect to this principle, for the avoidance of doubt the ratchet charge calculation would utilise the Maximum Supply Point Capacity in this circumstance.

The proposer of the Alternate B believes the PMSOQ could create a charging cap or 'gaming' opportunity for sites that deliberately under book capacity. To ensure the new Ratchet charge reflects the true value of the SOQ increase, the Alternate proposal is not capped by the PMSOQ, but reflects the true off-take capacity used.

Revised Ratchet Charge Calculation

The Ratchet Charge will be changed to reference three different types of transportation charges in its calculation.

Supply Point Ratchet Charge = LDZ Capacity Ratchet Amount + Customer Capacity Ratchet Amount + Exit Capacity Ratchet Amount

The components of the above calculation are calculated as follows (note that the new terms below are suggested terms and may vary in the final legal text):

- LDZ Capacity Ratchet Amount = (Annualised LDZ Capacity Charge after ratchet applied * Ratchet Charge Multiplier * Ratchet Period/365) –LDZ Capacity Charge that would be applicable immediately prior to the charge* Ratchet Period/365)
- Customer Capacity Ratchet Amount = (Annualised LDZ Customer Charge after ratchet applied * Ratchet Charge Multiplier * Ratchet Period/365) –LDZ Customer Charge that would be applicable immediately prior to the charge * Ratchet Period/365)
- NTS Exit Capacity Ratchet Amount = (Annualised LDZ Exit Capacity NTS (ECN) Charges after ratchet applied * Ratchet Charge Multiplier * Ratchet Period/365) –LDZ Exit Capacity NTS(ECN) Charge that would be applicable immediately prior to the charge* Ratchet Period/365)
- Ratchet Period = For sites other than Seasonal Large Supply Points, it is either the number of days between 1st October of the applicable gas year and the day before that the prospective ratchetted capacity applies on the LDZ Capacity invoice, or for new or shipperless supply points registered after 1st October of the relevant gas year, the supply point registration date. For Seasonal Large Supply Points the start point will be taken to be the Seasonal Contract Start Date.
- The Ratchet back charge will include a ratchet incentive multiplier charge of 1.1.

Example

Site in the East Anglia LDZ, EA1 exit zone

	Unit rate	Pre-ratchet (Annual)	Post-ratchet (Annual)	Annualised Difference
AQ (kWh)		20,000,000	20,000,000	
SOQ (kWh)		100,000	150,000	
LDZ Capacity	$0.8855*SOQ^{-0.2155}$	£ 27,046.50	£ 37,175.25	£ 10,128.75
LDZ Commodity	$0.1815*SOQ^{-0.2376}$	£ 2,360.00	£ 2,140.00	N/A
LDZ Exit Capacity	$0.0689*SOQ^{-0.2100}$	£ 2,226.50	£ 3,066.00	£ 839.50
LDZ Customer Capacity	0.0052	£ 1,898.00	£ 2,847.00	£ 949.00
		£ 33,531.00	£ 45,228.25	£ 11,917.25
Ratchet Incentive Charge	**Total charge * 1.1**		**£ 1,191.73**	**£ 13,108.98**

Assuming that the ratchet occurs on the 20th December then the 1st January (93 days after the 1St October) then the calculation is as follows:

	Calculation	Amount
Ratchet Period	93 days	
Capacity Ratchet Amount	10,128.75*93/365	£ 2,580.75
Customer Capacity Ratchet Amount	839.50*93/365	£ 213.90
NTS Exit Capacity Ratchet Amount	949*93/365	£ 241.80
Ratchet Incentive Charge	1,191.73*93/365	£ 303.65
Total		£ 3,340.01

For the avoidance of doubt this process does not impact the current provisions of TPD B4.7.12, which governs when a supply is liable for Supply Point Ratchet Charges after a class change.

Ratchet Performance Reporting and Monitoring

To understand if the above measures are appropriate or if the incentive charge needs to be increased or decreased, a monthly Ratchet Performance Report by shipper (anonymised), including customer count, ratchet count and cumulative ratchet volume (kWh), is to be created before the 2018 gas year. (No obligation can be placed on PAC to view this report, but it is available if they wish to view ratchet performance).

6 Impacts & Other Considerations

Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

No impact.

Consumer Impacts

UNC0619

This modification should remove a key barrier to smaller sites becoming daily read by removing the risk of a ratchet charge, which will improve cost targeting by the removal of an inappropriate charge and allow the development for innovative products for these customers. The combined effect of better settlement, improved cost targeting and product innovation will benefit competition in the marketplace.

UNC0619A:

This modification should ensure the continued application of ratchets as per the original intention of the regime – i.e. to apply to those sites which, due to larger consumption, could have a material impact upon network management procedures. By protecting smaller consumers, this neutralises the potential negative impacts they could incur as a result of becoming daily metered under the new class arrangements.

Both the roll-out of Smart and Advanced metering, plus the implementation of the new classes under Project Nexus, support the CMA's assessment that enhanced availability and use of granular data will be of benefit to the industry.

UNC0619B

This modification should remove a key barrier to smaller sites becoming daily read by removing the risk of a ratchet charge, which will improve cost targeting by the removal of an inappropriate charge and allow the development for innovative products for these customers. The combined effect of better settlement, improved cost targeting and product innovation will benefit competition in the marketplace.

Consumer Impact Assessment

Criteria	Extent of Impact
Which Consumer groups are affected?	• Domestic Consumers • Small non-domestic Consumers • Large non-domestic Consumers • Very Large Consumers Note –these modifications exclude NTS directly connected consumers

What costs or benefits will pass through to them?	• These modifications proposes to either remove or change the current Ratchet charging regime:
	  ○ 0619 – change the current Ratchet Charge to a charge based on the additional SOQ;
	  ○ 0619A – remove ratchet charges for sites with an AQ equal or below 73,20kWh;
	  ○ 0619B – change the current Ratchet Charge to a charge based on the additional SOQ + 10%
	• These modifications should improve cost targeting and allow the development of innovative products for these customers;
	• The combined effect of better settlement, improved cost targeting and product innovation should benefit competition in the marketplace.
	• These benefits would apply to consumers with an AQ below 73,200kWh for 0619A and all consumers for 0619 and 0619B.

When will these costs/benefits impact upon consumers?	• Following implementation on a date to be agreed.
Are there any other Consumer Impacts?	• None identified.

Cross Code Impacts

The changes proposed in these modifications might impact iGT UNC requiring its amendment to maintain consistency with the UNC. The iGT UNC Code administrator intends to undertake a review following a decision on implementation by the Authority

EU Code Impacts

None identified.

Central Systems Impacts

These modifications would have an impact on Central Systems and a ROM assessment has been undertaken for each.

Workgroup Impact Assessment

UNC0619

- Some Workgroup participants consider the proposals in this modification would reduce barriers to entry for smaller sites which want to be daily read and utilise Product Class 2, by removing the

risk of a punitive ratchet charge being applied. This charge is not applied to NDM sites which might operate in a similar way;

- In addition, these changes might improve cost targeting and allow the development for innovative tariff related products for customers by utilising SMART and AMR capable meters. It should be noted that larger supply point consumers are more likely to be interested in this type of product.
- The combined effect of better settlement, improved cost targeting and product innovation should benefit competition in the marketplace.
- This modification will remove a disincentive to sites becoming daily read, but there will be no obligation on Shippers to take advantage of this change or mandate sites to be Product Class 2 .
- However, other Workgroup Participants were concerned that these proposals would introduce a risk that DNOs would not be able to rely on stated SOQs, leading to inefficient network investment as the lack of a suitable incentive would not provide sufficient encouragement for parties to demonstrate correct behaviours.

UNC0619A

- Some Workgroup participants consider the proposals in this modification would reduce barriers to entry for smaller sites which want to be daily read and utilise Product Class 2, by removing the risk of a ratchet charge. However, it was not clear if this included microbusiness or should be considered for domestic only.
- This modification will remove a disincentive for smaller sites becoming daily read, but there will be no obligation on Shippers to take advantage of this change, so there will be no costs imposed on parties. However, it would not remove the disincentive on larger sites (over 73,200kWh) from becoming daily read.
- Some Workgroup participants consider this modification would prevent uneconomic system reinforcement which might be required should sites be allowed to increase their SOQs without the risk of an incentive charge being applied.
- However, other Workgroup Participants were concerned that these proposals would not reduce the current practice of overstating SOQs, leading to uneconomic system development and potentially impacting the uptake of Product Class 2 products.

UNC0619B

- Some Workgroup participants consider the proposals in this modification would reduce barriers to entry for smaller sites, which want to be daily read and utilise Product Class 2, by removing the risk of a ratchet charge being applied. This charge is not applied to NDM sites which might operate in a similar way;
- In addition, these changes might improve cost targeting and allow the development for innovative tariff related products for customers by utilising SMART and AMR capable meters. It should be noted that larger supply point consumers are more likely to be interested in this type of product.
- The combined effect of better settlement, improved cost targeting and product innovation should benefit competition in the marketplace.
- This modification will remove a disincentive to sites becoming daily read, but there will be no obligation on Shippers to take advantage of this change or mandate sites to be Product Class.
- However, other Workgroup Participants acknowledged there was an increased incentive in 0619B compared to 0619, they were concerned that these proposals would introduce a risk that

DNOs would not be able to rely on stated SOQs, leading to inefficient network investment as the lack of a suitable incentive would not provide sufficient encouragement for parties to demonstrate correct behaviours.

Rough Order of Magnitude (ROM) Assessment

Summary of ROMs

Rough Order of Magnitude (ROM) Assessment	
Development Cost estimate UNC 0619	between £70k and £110k
On going Costs estimate UNC 0619	£650 per 100 ratchets processed
Development Cost estimate UNC 0619A	between £85k and £140k
On going Costs estimate UNC 0619A	£650 per 100 ratchets processed
Development Cost estimate UNC 0619B	between £75k and £115k
On going Costs estimate UNC 0619B	£650 per 100 ratchets processed

7 Relevant Objectives

Impact of the modification on the Relevant Objectives:	
Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	0619A - positive
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	0619A - positive
c) Efficient discharge of the licensee's obligations.	0619A - positive
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	0619 - Positive/Impacted 0619B Positive/Impacted
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards… are satisfied as respects the availability of gas to their domestic customers.	None
f) Promotion of efficiency in the implementation and administration of the Code.	None
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of	None

Energy Regulators.	

UNC0619:

This modification ensures that the disproportionate impact of the Ratchet Charge regime will be removed so as to allow sites with lower levels of consumption, to benefit from being daily read. This will improve cost targeting and promote innovative products, so furthering relevant objective (d) *Securing of effective competition between Shippers*.

UNC0619A:

This modification will ensure that Gas Transporters continue to receive the appropriate market signals from those large consumers who could have an impact upon network management procedures.

Specifically, relevant objectives (a), (b) and (c) will be furthered in the following ways:

(a) This modification will ensure Transporters will continue to receive appropriate market signals that in turn feed forecasting and inform Transporter investment decisions.

(b) Similarly, appropriate market signals that assist forecasting help Transporters to plan in terms of offtakes from the NTS, required outlet pressures in the distribution network and storage. Such market signals directly affect the Transporters ability to make sufficient capacity available to meet demand in peak flow conditions. Degradation of such signals could result in the inefficient operation of the pipeline system of one or more relevant Transporters.

(c) Continuance of such market signals assists Transporters in the discharge of Standard Condition 16 and Standard Special Condition A9 in terms of ensuring the gas security standard is met.

UNC0619B:

This modification ensures that the disproportionate impact of the Ratchet Charge regime will be removed so as to allow sites with lower levels of consumption, to benefit from being daily read. This will improve cost targeting and promote innovative products, so furthering relevant objective (d) *Securing of effective competition between Shippers*.

8 Implementation

UNC0619

No formal timescales are proposed for implementation; however, it would be desirable if these changes were implemented prior to the period where ratchets will start to apply for any sites that have moved from Product Classes 3 and 4 to Product Class 2, which will would be October 2018.

UNC0619A

No formal timescales are proposed for implementation, however implementation as soon as reasonably practicable in order to protect any smaller consumers whom may already have elected to become daily metered.

UNC0619B

This modification will remove a disincentive to sites becoming daily read, but there will be no obligation on Shippers to take advantage of this change, so there will be no costs imposed on parties.

No formal timescales are proposed for implementation, but we wish to see these changes implemented prior to the period where ratchets will start to apply for any sites that have moved from Classes 3 and 4 to Class 2, which will be October 2018.

9 Legal Text

Legal Text has been provided by Wales & West Utilities and is to be published alongside this report. The Workgroup has considered the Legal Text and is satisfied that it meets the intent of the Solution for each modification.

10 Recommendations

Panel's Recommendation to Interested Parties

The Panel have recommended that this report is issued to consultation and all parties should consider whether they wish to submit views regarding this modification.