

Stage 02: Workgroup Consultation

Connection and Use of System Code (CUSC)

CMP260

'TNUoS Demand charges for 2016/17 during the implementation of P272 following approval of P322 and CMP247'

CMP260 seeks to give the option for metering systems that are registered on Measurement Class E-G on or before 01/04/2016 to be treated as HH for the purposes of calculating the actual annual liability up until the full charging year after the implementation date of P272.

This document contains the discussion of the Workgroup which formed in February 2016 to develop and assess the proposal. Any interested party is able to make a response in line with the guidance set out in Section 8 of this document.

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Length of Consultation: 15 Working days
Responses by: 31st March 2016



The Workgroup concludes:

To be completed following the Workgroup Consultation



High Impact:



Medium Impact:

Suppliers and National Grid



Low Impact:

What stage is this document at?

01	Initial Written Assessment
02	Workgroup Consultation
03	Workgroup Report
04	Code Administrator Consultation
05	Draft CUSC Modification Report
06	Final CUSC Modification Report

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Any Questions?

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About this document

This document is a Workgroup consultation which seeks the views of CUSC and interested parties in relation to the issues raised by the Original CMP260 CUSC Modification Proposal which was raised by RWE npower and developed by the Workgroup. Parties are requested to respond by 5pm on **31st March 2016** to cusc.team@nationalgrid.com using the Workgroup Consultation Response Proforma which can be found on the following link:

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP260/>

Document Control

Version	Date	Author	Change Reference
0.6	08/03/2016	Code Administrator	Workgroup Consultation

1 Summary

- 1.1 This document describes the Original CMP260 CUSC Modification Proposal (the Proposal), summarises the deliberations of the Workgroup and sets out the options for potential Workgroup Alternative CUSC Modifications (WACMs). Prior to confirming any alternative proposals the Workgroup are seeking views on the options they have identified, what is the best solution to the defect and also any other further options that respondents may propose.
- 1.2 CMP260 was proposed by RWE npower and was submitted to the CUSC Modifications Panel for their consideration on 29th January 2016. A copy of this Proposal is provided within Annex 1. The Panel decided to send the Proposal to a Workgroup to be developed and assessed against the CUSC Applicable Objectives. The Workgroup is required to consult on the Proposal during this period to gain views from the wider industry (this Workgroup Consultation). Following this Consultation, the Workgroup will consider any responses, vote on the best solution to the defect and report back to the Panel at the April 2016 CUSC Panel meeting.
- 1.3 CMP260 aims to give the option for metering systems that are registered on Measurement Class E-G on or before 01/04/2016 to be treated as Half-Hourly (HH) for the purposes of calculating the actual annual liability up until the full charging year after the implementation date of P272. This Workgroup Consultation has been prepared in accordance with the terms of the CUSC. An electronic copy can be found on the National Grid Website, <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP260/> .

2 Background

- 2.1 CMP260 proposes that for meters registered as HH during 2015/16 Charging Year, Suppliers should have the option for those metering systems registered in Measurement Class E-G on or before 1/4/2016 to be treated as HH for Transmission Use of System (TNUoS) charging purposes.
- 2.2 The proposer believes that the implementation of CMP260 will enable more HH settled consumers to choose to benefit from being as HH for TNUoS charging purposes i.e. they can actively Triad avoid during winter 2016/17. The biggest benefit of P272 identified by Ofgem is the incentive it provides to load shift away from peak periods through DSR activity. Denying Customers the opportunity to be charged under the HH methodology could exclude them from achieving these benefits.
- 2.3 In order for this to be possible Suppliers will need to provide a list of Meter Point Administration Number (MPAN) they wish to be treated as HH for TNUoS charging before the start of the Triad¹ season. Suppliers will also need to provide verified 2016/17 metered demand data captured between the hours 4:00pm-7:00pm for those consumers because Triads traditionally occur between 4:30pm and 6:00pm.
- 2.4 This data allows National Grid to amend the Non-Half Hourly (NHH) demand for those MPAN's a Supplier designates. As a result of amending the NHH demand for that Supplier, National Grid then calculates HH demand on an MPAN by MPAN basis based on metered HH demand. Suppliers failing to provide the correct information National Grid requires to calculate TNUoS charges under the HH methodology will be calculated as if they remained NHH.
- 2.5 CMP241 was raised and implemented in April 2015 to prevent a single meter installation being liable for both NHH charges and HH TNUoS charges within the same charging year, due to the implementation of Balancing and Settlement Code (BSC) Modification P272.
- 2.6 The default option under CMP241 is that all meters registered within Measurement Classes E-G will be treated as NHH for TNUoS charging purposes. Suppliers are given the option prior to the start of the 2015/16 charging year for those meters within Measurement Classes E-G, to continue to be treated as HH if the Supplier notifies National Grid of their intention before the start of the Triad season. This is in conjunction with also providing verified metering data for those meters in time for the end of year reconciliation in June of the Charging Year Y+1.
- 2.7 The optionality to submit further metering systems that migrated throughout the 2015/16 Charging Year (predominantly taking advantage of P300 on 5th November 2015) as HH for the 2016/17 Charging Year as HH was removed as part of CMP247.
- 2.8 Following the approval of CMP247, consumers being settled as HH before 1st April 2015 (and who would originally have been classed as Profile Class 5-8) can be treated as HH for TNUoS charging purposes. This is subject to Suppliers providing information before the reconciliation date and notifying National Grid of its intentions before the start of the Triad season.
- 2.9 At the time CMP247 was approved it was thought the number of sites that would migrate prior to April 2016 would be too large to manage through a manual process. It has now become apparent that the number of sites migrated by April 2016 will be significantly lower

¹ Triad demand is the average demand on the system over three half hours between November and February. These three half hours comprise the half hour of system demand peak and the two other half hours of highest system demand which are separated from system demand peak and each other by at least ten days. These 3 half hours of peak demand are referred to as Triads

than had previously expected. As a result continuing to charge the NNH methodology for HH sites could significantly reduce the incentive to manage demand around the system peaks, potentially leading to inefficient use of the system.

3 Benefits of the Modification

- 3.1 CMP260 supports load management activity and provides potential for customers who are able to manage demands away from TNUoS charging the ability to save on TNUoS costs. This can be achieved with a limited degree of administrative burden in the opinion of some Workgroup members.
- 3.2 CMP260 allows customers on measurement classes E-G the option to benefit from using HH TNUoS methodology to determine their 2016/17 TNUoS charges. If customers choose not to take up this option then their TNUoS charges will continue to be calculated according to NHH TNUoS methodology (both calculations will be performed on their HH settlement data).
- 3.3 The option to face HH TNUoS methodology is particularly beneficial to customers who have the capabilities to reduce their Triad² demand during November to February. The costs of the business' transmission costs are determined by their consumption during those 3 half-hours during the winter. Customers can choose to put plans in place to turn down equipment to reduce their usage and save money. Other HH metered users of the system are charged according to their usage during Triad demand periods and this response has the impact of flattening peak demand on the system.
- 3.4 The benefit of responding to current TNUoS pricing signals, once moved to HH metering, was removed for new customers following the swift approval of the following modifications which delayed the complete intentions of P272. Some customers feel disadvantaged by this delay and have requested an option, prior to winter 2016/17, to allow an exception to be made and preserve the original intentions of P272 and their mandatory move to HH metering.
- 3.5 Note: some sites, which moved to measurement classes E-G prior to 1st April 2015, have been allowed this option under CMP241&CMP247. A process is already in place to administer this exception between certain Suppliers and National Grid and the proposal is to use the existing capability to administer to more customers who are able to engage in Triad management.
- 3.6 Opening up the current process to more customers is not expected to place an additional administrative burden on Suppliers or National Grid. Acceptance of this change offers the potential of cost savings to some customers who are ready to make appropriate changes in behaviour. Reducing peaks on the transmission and distribution networks by providing appropriate price signals to more customers can reduce reinforcement costs for the Transmission and Distribution Network Operators which benefits all customers. In addition, flattening the system peaks reduces the need for operating very inefficient plant and reduces CO2 emissions. The potential announcement of power station closures for winter 2016/17 can be to a degree mitigated by customer's ability to reduce load and thus take additional strain off the system.
- 3.7 In summary the modification promotes: customer engagement with HH Settlement; it ensures that customers are not disadvantaged through regulatory change; allows appropriate price signals for customers to demand manage and prevents over-charging of customers with a specific year.
- 3.8 In summary the modification promotes: customer engagement with HH Settlement; it ensures that customers are not disadvantaged through regulatory change; allows appropriate price

² Triad demand is the average demand on the system over three half hours between November and February. These three half hours comprise the half hour of system demand peak and the two other half hours of highest system demand which are separated from system demand peak and each other by at least ten days. These 3 half hours of peak demand are referred to as Triads

signals for customers to demand manage and prevents over-charging of customers with a specific year.

4 Workgroup Discussions

- 4.1 The first point of discussion was how National Grid invoices Suppliers and what the changes following the implementation of CMP241.

The Process for TNUoS charging and what changed following the implementation of CMP241.

- 4.2 National Grid receives a file from Elexon (commonly known as P210 or TUoS file) which splits up the total demand for a Supplier's 'Supplier Volume Allocation' (SVA) 'Balancing Mechanism Unit' (BMU) into NHH and HH demand. This demand data is aggregated at a GSP level with the Load Loss Correction Factors applied to it.
- 4.3 The aggregation of demand data is carried out by Data Aggregators Which National Grid receives via the P210 file mentioned in paragraph 3.3. This data is sent to National Grid on a daily basis and automatically uploads into the National Grid billing system, which National Grid uses to forecast demand bases necessary for charge setting.
- 4.4 When National Grid commences its billing processes, actual demand data within this file is used to determine the Initial Demand Reconciliation. This is carried out in June after the Charging Year. The initial demand reconciliation compares what Suppliers have been invoiced throughout the year (based on Suppliers own forecasts) compared to what they would have been invoiced if actual demand data had been used.
- 4.5 A Workgroup member questioned if a customer had been charged assuming they were NHH settled and this changed to a HH methodology would the Supplier be able to recover this revenue. The National Grid representative and the Proposer noted that charges throughout the year are based on Suppliers own forecasts so if they envisage that a customer will be charged under the HH methodology then their own forecasts and subsequent invoices can take this into account.
- 4.6 The Initial Demand Reconciliation ensures that Suppliers are charged based on actual demand data so under the HH methodology Suppliers are effectively in control of their own liabilities.
- 4.7 As meters migrate as part of P272 the demand for that meter installation moves from NHH to HH. To avoid being double charged, National Grid moves the HH energy relating to these meters out of the HH 'pot' back into the 'NHH' pot. This would result in that customer having 0 HH demand over a Triad period therefore they would only be charged based on their 'NHH' demand.
- 4.8 CMP241 allows those meters which were already charged under the HH methodology prior to 1st April 2015 to continue to be charged under this methodology. National Grid receives aggregated data and does not have sight of individual MPAN demand, therefore to enable those customers to continue to be charged under the HH methodology we require individual metering data to enable the demand data to be moved back into the HH pot.
- 4.9 Without the above option those customers who had actively chosen to be charged under the HH methodology would have the NHH charging methodology imposed on them.
- 4.10 To allow 4.8 to happen National Grid created a manual process to effectively reverse the process described in 4.7. It was decided to do this manually as the maximum number of meters and Suppliers which could take up the option, allowed the adjustment of data flows, the extra checks necessary and the provision of extra supplementary data (i.e. backing

sheets) could be carried out in the timescales as prescribed in 3.13.4 of CUSC and further detailed in 4.11.

Charging Timelines.

4.11 The below timeline displays the charging calendar following the implementation of CMP241, and the timescales involved in carrying out TNUoS charging activities.

31st January 2016: Tariffs finalised for charging year 2016/17.

April 2016: First TNUoS invoice sent out to Suppliers which is based on Suppliers own forecasts.

September 2016: Deadline for Suppliers to inform National Grid of the MPANs of the meters which they would like to be charged under the HH methodology for 2016/17.

1st June 2017: Suppliers provide actual metering data for those meters they have opted to be charged under the HH methodology.

31st June 2017: Deadline for the Initial Demand Reconciliation to be completed.

CMP247, CMP241 and the IT solution.³

4.12 The original implementation date for P272 was set to April 2016. Due to implementation issues which would impact the end consumer in a negative way, the implementation date for P272 was amended to April 2017.

4.13 The legal text for CMP241 allowed those meters which were settled as HH before the start of a Charging Year to continue to be HH settled if Suppliers provide the metering data for the MPAN. This was designed to allow those customers who had actively chosen to be charged under the HH methodology to continue to be charged as HH. However due to the movement of the implementation date this now opened up the option to be settled under the HH methodology to all meters which migrated before 1st April 2016.

4.14 CMP247 was raised as the manual process which had been set up to allow those meters which had been charged under the HH methodology prior to April 1st 2015, could now be utilised by an estimated ~90,000 meters. At the time CMP247 was raised, Suppliers had not yet issued their migration plans to Elexon. The number of meters affected by P272 was estimated at 180,000. By the end of April 2016 it was therefore estimated that being half way through the process, half of the meters will have migrated i.e. 90,000. Most recent plans indicate that a maximum of 36,000 meters will have migrated by April 2016, although this could lag further.

4.15 National Grid determined that a manual process would now not be appropriate and a robust IT solution would need to be implemented to handle the volume of data, and perform the calculations in the time period between receiving the actual demand data from Suppliers,

³ Details on CMP247 including Suppliers concerns over the modification and Ofgem's rationale for implementing the modification can be found on the National Grid website: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP247/>

(start of June) and then amend existing aggregated data, to allow Suppliers to be invoiced as part of the Initial Demand Reconciliation at the end of June.

- 4.16 A recent IT project to amend the current SAP billing system to support the implementation of Project TransmiT at the time of CMP247 had an estimated cost of £2m with projected timescales considered prohibitive to put in place the solution in time to allow the Initial Demand Reconciliation to be carried out using the IT solution
- 4.17 A number of Workgroup members questioned the IT cost and noted that similar IT projects which they had recently installed were significantly cheaper and that the prohibitive IT cost was the main driver for MP247 being implemented. The National Grid representative acknowledged their concerns and noted that the cost differential could be due to the fact that National Grid's billing system was designed, scoped and set up to invoice Suppliers based on their BMU's aggregated demand data received from Elexon.
- 4.18 It was also acknowledged that the actual IT cost for this solution may be less than estimated at the time of raising CMP247 but to get a more detailed IT cost estimate would in itself cost money and would require clarification of exact requirements.
- 4.19 It was acknowledged that the Workgroup do not need to confirm the definite final number of meters until September 2016. This may cause problems in sizing any IT solution as the timescales to design, procure, implement and test the billing system would still be prohibitive to have the solution in place for the Initial Demand Reconciliation. Some Workgroup members commented that they could provide this information sooner if needed, but acknowledged other Suppliers may have different processes and adequate personnel which could prevent them doing this. However it must be noted that any Ofgem decision regarding this modification will not be known until June at the earliest so some Suppliers may not undertake this work until there is more certainty.
- 4.20 However it must be noted that the IT solution was not the sole reason that CMP247 was implemented as briefly discussed in 5.21?
- 4.21 The uncertainty over which meters would opt to be charged under the HH methodology for 2016/17 would have posed problems in estimating demand levels necessary to set cost reflective charges. National Grid believe the analysis undertaken as part of this workgroup and the discussions between Workgroup members over what demand levels to use in this analysis highlights the problems which would have been faced setting cost tariffs for the 2016/17 Charging Year.

Effect of the proposed Modification on 2016/17 Revenues.

- 4.22 The National Grid Representative explained to the workgroup the likely effect on TNUoS revenues and future tariffs, if the proposed modification was implemented.
- 4.23 National Grid has already fixed tariffs for the charging year 2016/17. As part of the tariff setting process we forecast the HH and NHH demand bases.
- 4.24 If actual demand volumes deviate from these forecasts, this then result in an over or under recovery of revenue, which would result in subsequent adjustment made to future revenues and tariffs (any under/over recovery will affect 2018/19 tariffs). However deviations in the various demand bases can sometimes cancel out each other. In previous analysis National Grid estimated that the effect of customers moving from NHH to HH would be fairly cost neutral. The reduction in NHH demand and revenue collected from this demand base would be offset by the increase in HH demand at Peak. This analysis utilised NHH Profiles for Classes 5-8 which are calculated as an aggregated average. Therefore within these classes

there will be customers who would benefit from moving to HH and some who would not benefit (if their current demand profiles stayed the same) hence why the effect was neutral.

- 4.25 CMP260 proposes that Suppliers will be able to select which customers will be charged under the HH methodology for 2016/17 (if they migrated before 1st April 2016). The Workgroup agreed that those customers, who would be selected, will be those who will benefit financially from being charged under the HH methodology as opposed to the NHH methodology. Following this statement if all things stayed equal in terms of weather and expected demand use, this modification could impose an under recovery on National Grid. Workgroup members noted that the amount in question would be minimal when compared to historical variances seen due to weather etc. The National Grid representative agreed that this was true; however those variances are outside of the control of National Grid and the Industry and are known and accepted risks. With reference to the analysis in Annex 5 under the worst case scenario where ring-fenced customers pay no TNUoS through totally avoiding any consumption during the triad periods (although this was acknowledged as been unlikely) this would lead to an under recovery of nearly £30m. When compared to recent variances, yes, this is less in comparison, but cannot be considered as small and is something which can be managed and avoided.
- 4.26 The Workgroup noted that this wouldn't be a loss to National Grid as the revenue would be recovered through K in later years and was a more of a cash flow issue.
- 4.27 A Workgroup member pointed out that although the under recovery would be minimal if the amount when coupled with other variances pushed National Grid outside of the bandwidths for under recovery, then this would result in penal interest rates which would be detrimental to National Grid.
- 4.28 If the proposed modification was implemented before tariffs were set then we could have reduced the System Peak thus slightly increasing the Half Hourly tariffs to ensure NHH tariffs were left neutral. This course of action cannot now be undertaken unless we carry out a mid-year tariff change which is not something we would likely undertake, and secondly the industry appreciates us doing.

CMP260 Effects on Future Tariffs and Cost Reflectivity.

- 4.29 The total revenue to be recovered through TNUoS charges is determined each year which is detailed in the Transmission Licensees' Price Control formulas. Therefore National Grid wanted to flag that if there is a reduction in revenue recovered from one party, this results in an increase in revenue required to be recovered from other parties. As a result where a subset of customers financially benefit from this modification, it will then result in other parties who cannot reduce demand during the peak periods, (4:00pm-7:00pm) or are charged under the NHH methodology paying for this benefit in future years through increased tariffs. As a result, this modification would benefit a subset of customers to the detriment of others.
- 4.30 It was agreed that the cost when spread across all users would be minimal, and would therefore have a minimal effect on tariffs, so the impact would be more on a principal basis. However any imposed changes to the demand bases would effectively reduce the cost reflectivity of the tariffs which have already been finalised for the 2016/17 Charging Year, which is one of the principals of charge setting.
- 4.31 A Workgroup member questioned what would be the effect on revenues and tariffs if this modification was implemented. National Grid explained the methodology behind how this analysis could be carried out, i.e. National Grid has current NHH profiles for Classes 5-8. By calculating average demand between 4:00pm-7:00pm and then looking at the Peak demand for the hour 5:00pm-5.30pm which on average is the most prevalent time for a Triad, we can

calculate what demand moves from NHH to HH. In this scenario no demand will move to HH, because the assumption is made that users will avoid the Triad. The proportion moved from each zone will be done based on current ratios of NHH between zones.

- 4.32 Another Workgroup member agreed that this approach seemed sensible as the customers in question were geographically spread. A maximum of ~36,000 meters will migrate before April 2016 but not all of these will be selected to be charged under the HH methodology. Therefore the analysis would have to look at varying proportions of the ~36,000 meters (Annex 5).

Effects on Demand

- 4.33 Annex 5 indicates that up to 0.45TWh would move from NHH chargeable demand i.e. 4-7pm. This would not be an actual reduction in demand seen on the system. The reduction would be in the amount of demand which would be charged under the NHH methodology. If those customers who were previously incentivised to reduce demand between the hours of 4-7pm were now only incentivised to reduce demand over the Triad periods this may cause an increase in demand outside of the obvious Triad half hours the movement of these meters from a NHH Methodology to a HH Methodology could introduce around 500MW of extra Triad avoidance that would otherwise have occurred under CMP247. However the Workgroup noted that the concept of the HH Methodology would be new to these customers so their ability to avoid taking all demand at Triad may not be achievable. There is therefore a great degree of uncertainty of the effect of this modification on demand over Triad.
- 4.34 The National Grid representative noted that historically the ability to avoid taking demand over the Triad half hours was far simpler as Triad half hours were easier to predict. Recent winters have shown that the increasing amount of Triad avoidance has resulted in the flattening of Peaks. The System Peak for a very cold day is therefore not too dissimilar to a day which is milder and therefore no Triad warnings were issued. Coupled with this the demand levels between the hours of 5 to 5.30pm and 5.30 to 6pm are now more closely matched. It is therefore not a certainty that a customer charged under the HH methodology will actually receive a reduced TNUoS liability unless its demand reduces for the majority of the winter. Therefore the differential between the TNUoS liabilities under the NHH methodology and HH methodology is potentially less than historic values, or could even be the more if they inadvertently take demand over a Triad.
- 4.35 Following on from 4.34, increased Triad avoidance through this modification will increase the uncertainty and risk for current HH customers in relation to 4.34 as increased Triad avoidance is likely to further close the gap in demand between the 'usual' Triad Half Hours and what would ordinarily be classed as 'safe' from a customer's perspective, resulting in greater uncertainty over when the Triad half hours will occur and risk of hitting a Triad thus increasing their TNUoS liability. A significant driver of CMP260 is to allow customers to reduce their TNUoS liability through Peak demand management for 2016/17. The above indicates that this is not a certainty. One Workgroup member stated that he has customers whose demand profiles indicate that they would receive a reduced TNUoS liability as they naturally take less demand over the settlement periods in which Triads occur. The National Grid noted that these customers would therefore receive a reduced TNUoS liability but the benefits they would provide to reducing System Peak would not exist as they would still take the same demand. Therefore this modification would only provide a benefit to them in terms of reduced liability and no benefit to the System. The same and other Workgroup members offered examples of other customers who would consciously change their consumption patterns and load manage across winter peaks.

Other Impacts of CMP260.

- 4.36 The Workgroup discussed the potential benefits CMP260 would provide to customers and the Transmission System.
- 4.37 All workgroup members agreed that implementing P272 increased fixed annual costs to a consumer as the costs were now greater now they were being HH settled. By allowing customers to offset these increased costs by being able to be charged under the HH methodology it potentially mitigates these costs and improves the relationship with customers.
- 4.38 The National Grid representative stated that the above comments could not be disputed as that is what the current methodology states. However where Workgroup members stated that CMP260 would only result in a minimal under recovery due to the numbers of meters and customers involved, the National Grid representative noted this statement must then also apply to the potential benefits to the system which must also therefore be minimal.
- 4.39 In terms of reductions in System reinforcements; investment decisions are based on continuous trends. It is unlikely that the ability to demand manage for a year earlier than what would naturally happen under the existing timescales (all meters will be charged under the HH methodology following implementation) would drastically alter investment decisions. System Peaks have been significantly lower over the last three years, including this winter (it must be noted that the warmer than average temperatures has been a significant driver on reduced System Peaks) so again it's arguable what reinforcement would actually be avoided. This view is not shared by all Workgroup members, who felt that the modification gives a consistent message to encourage new HH customers to become more engaged with HH settlement from the start of their supply period, rather than, removing the link between entry into a HH market and ability to manage load over winter peaks to control costs. National Grid provided a counter argument that being charged under both the HH and NHH methodologies will encourage engagement with HH settlement, as the consumer will be charged based on actual metering data under either methodology. The concept of Winter Peaks applies to the HH methodology and not HH settlement. It is true that the incentive to load manage over Winter Peaks is greater under the HH methodology than under the NHH methodology due to the potential ability to avoid all TNUoS liability under the HH methodology and this may encourage greater engagement, however as mentioned in 5.35 there is no certainty that their liability will decrease. As consumers are charged based on their usage between the hours of 4-7pm each day throughout the year they would actually be encouraged to load manage and be engaged sooner under the current methodology than that proposed by CMP260. The argument for consumers being engaged with HH settlement from the start of their supply period would be stronger if this modification applied to all meters migrating before the 1st April 2016 and not just those customers who could benefit financially.
- 4.40 The workgroup acknowledged that there may be other impacts on the ability to load manage on BSUoS. The workgroup has not investigated this any further.
- 4.41 The ability to reduce demand was an overriding principle of P272 and incentivising users to reduce demand at Peak reinforces a major principle of the HH methodology.
- 4.42 Although the meters and customers in question will not currently be charged under the HH methodology due to CMP247, this does not prevent these customers from undertaking demand management and subsequently receiving a benefit in terms of a reduction in their TNUoS liability.
- 4.43 When previously a customer's demand between the hours of 4-7pm was based on NHH profiles, any reduction in demand between these hours would not result in a reduction in TNUoS for that customer. Due to P272 these customers are now settled as HH and National Grid now receive actual half hourly demand data for these customers. Therefore if the customer reduces demand between the hours of 4-7pm they will see a reduction in their TNUoS costs.

4.44 However the signal is not as strong to demand reduce as the potential cost reduction under the HH methodology which could result in a £0 TNUoS liability, whereas to achieve this cost reduction under the NHH methodology would require the customer to not take any demand between the hours of 4-7pm for the whole year. It is naturally understandable from a customer's perspective why not being charged under the HH methodology is frustrating.

Customers Changing Suppliers.

4.45 One Workgroup member queried the process that would be followed should a customer change supplier during the year.

4.46 Under existing approved modifications CMP241 & CMP247, to allow National Grid to administer the change to TNUoS charges from NHH methodology to HH methodology then the supplier must complete 2 actions: (i) the Supplier must notify National Grid with details of all impacted MPANs prior to the start of the Triad period (by the end of September); (ii) the Supplier must provide the metered data for all MPANs to National Grid once the Triad period is complete (during April).

4.47 If the customer changes Supplier then the customer must remain ring-fenced as HH TNUoS Methodology as the preference expressed at the start of the winter. If the customer inadvertently faces a mixture of NHH and HH charges through a settlement year then there is potential for overcharging. CMP260 proposes changes to the code to ensure that National Grid bills the Supplier(s) according to the ring-fencing specified at the start of the Triad season. Suppliers have an obligation to provide the HH data to National Grid and need to be aware of this industry change to understand their responsibilities.

4.48 The customer has an incentive to secure similar terms and conditions to preserve their ability to realise financial benefits from load management response. The new Supplier would then provide the metered data to National Grid to allow TNUoS charges to be made according to HH methodology as also reflected in the terms and conditions of the new contract. If the customer fails to secure similar terms and conditions then the TNUoS methodology could revert to NHH methodology.

4.49 Please note that this is not an additional complication posed by the introduction of CMP260 but an existing risk with CMP241&CMP247 that could be addressed under changes to the code under CMP 260.

4.50 In practical terms, Suppliers plans for migrating sites from NHH meters to HH coincide with their renewal dates and agreement of a forward contract to cover, generally, a period of at least 12-months. The background of the migration activity makes it highly likely that the customer will remain with their current supplier until at least the end of the 2016/17 Triad period. A movement from their current Supplier under these conditions would not be in keeping with their contractual obligations for the agreed contract period.

4.51 For that exceptional instance, where the period of the contract allows the customer to contract with 2 Suppliers covering one Triad period: the Suppliers aggregated data, provided to National Grid at the end of the Triad period, must reflect all MPANs as notified before the start of the Triad period (even if some of them are only on supply for some of the Triad months) The second supplier must continue to ring fenced the customer for HH methodology, then they must inform National Grid that their dataset will be supplemented by this new MPAN previously ring-fenced by their previous supplier. There is an expectation that the customer should remain ring-fenced to HH TNUoS methodology as their original intentions prior to the start of the Triad season. This decision should not be reversed

retrospectively or once Triad period has commenced as by allowing this would effectively allow the consumer to select the methodology with the least liability after the event.

Possible Alternatives/Options.

- 4.52 The National Grid representative questioned if this proposal actually required a CUSC modification. National Grid charges Suppliers based on aggregated demand which is ultimately based on the end consumer demand use. It is up to Suppliers how they then pass these TNUoS costs on to the consumer. If customers have requested to be charged under the HH methodology and the initial driver and cause for them not already being charged under the HH methodology was the extension of the implementation date from April 2016 to April 2017, could or should the difference in liability be then funded/subsidised within the Supplier's own customer bases?
- 4.53 One Workgroup member asked if there was anything which Suppliers could do to aid the process which collates and amends demand data required to allow these customers to be charged under the HH methodology for 2016/17, thus reducing the administrative burden and cost of National Grid in adopting this methodology. The National Grid representative stated that the main administrative burden and IT costs lay in verifying demand data and meters, adjusting demand within the P210 file, being able to adequately check these adjustments and then provide supporting information to Suppliers to allow them to understand what has been altered and amended.
- 4.54 Definite savings in terms of time and cost could be made if the amendment of data was carried out by other parties and National Grid was the end recipient of the adjusted demand.
- 4.55 However this approach would mean that Suppliers would have to accept the amounts in the final invoices. Whereas some Suppliers have processes in place to validate the amounts in question this may not be the same for all Suppliers. When explaining the TNUoS bill to consumers this information may be important.

5 Workgroup Alternatives

5.1 To be considered

Impact on the CUSC

To be updated

Impact on Greenhouse Gas Emissions

6.1 None identified.

Impact on Core Industry Documents

6.2 None identified.

Impact on other Industry Documents

6.3 None identified.

7 Proposed Implementation and Transition

- 7.1 If this modification was implemented there are a number of Implementation issues and potential costs to consider.
- 7.2 The costs and work below are not mitigated by the fact that it will be an enduring solution. Any work undertaken is limited to the lifetime of P272. Please note, if implemented, Suppliers can choose whether to face an impact from this proposal. If a supplier chooses to do nothing different then their MPANs will continue to face NHH TNUoS methodology.

National Grid continue with solution already in place to facilitate CMP241

- 7.3 The CMP241 Workgroup agreed a manual solution to ring fence MPANs to face HH TNUoS methodology as long as they were registered as HH prior to 1st April 2015. This methodology is being applied to a maximum of 3,000 MPANs. Here the Suppliers submit an aggregate file to National Grid so that the volume treated as HH/NHH can be adjusted (i.e. more volume can choose to be treated as HH rather than NHH) CMP260 proposes that this option is opened up to more sites as long as they are registered as HH prior to 1st April 2016. Some suppliers on the Workgroup proposed that the same manual solution (as now operating under CMP241) is extended to a larger number of MPANs (maximum 36,000 MPANs as indicated by Supplier migration plans collated by Elexon). Some suppliers on the Workgroup feel that the number of sites COMC to HH by 1st April 2016 will be lower than the 36,000 scheduled COMCs. In addition, not all Suppliers will take up the opportunity to have qualifying MPANs to be treated as HH, so the current manual solution would still be workable. National Grid feel that any additional MPANs to the current process would require additional validation steps (amended solution described below).

National Grid continue with a Manual Process

- 7.4 If National Grid continued to use a manual process to process the data sent in from Suppliers there would be the need to employ a number of contractors to undertake the tasks in the limited time between receipt of the data and sending out invoices as part of the Initial Reconciliation.
- 7.5 From an audit perspective it is not acceptable practice to manually adjust data flows so extra checks will need to be made to avoid mistakes or potential fraudulent activities. Demand data is normally uploaded automatically into our billing system from a file sent from Elexon so this was not previously an issue.
- 7.6 Due to the timescales involved there is a limit on the Supplementary information which could be provided with the invoice. Suppliers will be sent a backing sheet showing the demand per BMU and final liability. The processes taken to adjust the data flows will be undertaken but to provide this data showing each step for each MPAN will be time consuming. For large Suppliers this may not be an issue as they may well have processes in place or third parties who can verify invoices.
- 7.7 Suppliers will need to adjust the data to what is seen at the GSP i.e. Line Loss Factors will need to be applied.
- 7.8 The demand data needs to be independently verified as well as a data check on when the meter migrated.
- 7.9 Suppliers need to accept that there will be an increased risk of billing errors albeit all effort will be taken to avoid these.

Suppliers work with Elexon to amend P210/TUoS file

- 7.10 If Suppliers, Data Aggregators and Data Collectors amended the demand data so that the data National Grid currently receives from Elexon stays in the same format, or if amended is contained in aggregated columns, this will vastly cut down the workload from a National Grid perspective.
- 7.11 Who would organise and fund this collaborative work is not known? BSC changes would also have to be made and funded.
- 7.12 Supplementary data will still be an issue.
- 7.13 **National Grid Implement an IT system to automate all the above processes (8.3 to 8.8)**
- 7.14 National Grid does not deem this option to be achievable in the timescales allowed.

- 8.1 This Workgroup is seeking the views of CUSC Parties and other interested parties in relation to the issues noted in this document and specifically in response to the questions highlighted in the report and summarised below:

Standard Workgroup Consultation questions:

- Q1: Do you believe that CMP260 Original proposal or either of the potential options for change better facilitates the Applicable CUSC Objectives?
- Q2: Do you support the proposed implementation approach?
- Q3: Do you have any other comments?
- Q4: Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider? (Please see 8.3).

Specific CMP260 Workgroup Consultation questions:

- Q5: As a Supplier what supplementary information would you require alongside your invoice?
- Q6: Do you think this modification will increase load management in the winter of 2016/17 and in doing so likely to decrease or increase costs to the end consumer?
- Q7: As a Supplier, if you are supportive of this change, how many MPAN's are you likely to want to be ring-fenced as HH under this proposal?

Please note that these numbers will be treated as confidential for any publication of Consultation responses.

- 8.2 Please send your response using the response proforma which can be found on the National Grid website via the following link: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP260/> In accordance with Section 8 of the CUSC, CUSC Parties, BSC Parties, the Citizens Advice and the Citizens Advice Scotland may also raise a Workgroup Consultation Alternative Request. If you wish to raise such a request, please use the relevant form available at the web link below:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/forms_guidance/

- 8.3 Views are invited upon the proposals outlined in this report, which should be received by **5pm** on **31st March 2016**. Your formal responses may be emailed to: cusc.team@nationalgrid.com
- 8.4 If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the CUSC Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.
- 8.5 Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private and Confidential".

1. The Workgroup is responsible for assisting the CUSC Modifications Panel in the evaluation of CUSC Modification Proposal CMP260 'TNUoS Demand charges for 2016/17 during the implementation of P272 following approval of P322 and CMP247' tabled by RWE Npower at the CUSC Modifications Panel meeting on 29th January 2016.
2. The proposal must be evaluated to consider whether it better facilitates achievement of the Applicable CUSC Objectives. These can be summarised as follows:

Use of System Charging Methodology:

(a) that compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;

(b) that compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard condition C26 (Requirements of a connect and manage connection);

(c) that, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses.

(d) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1.

Objective (d) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

3. It should be noted that additional provisions apply where it is proposed to modify the CUSC Modification provisions, and generally reference should be made to the Transmission Licence for the full definition of the term.

Scope of Work

4. The Workgroup must consider the issues raised by the Modification Proposal and consider if the proposal identified better facilitates achievement of the Applicable CUSC Objectives.
5. In addition to the overriding requirement of paragraph 4, the Workgroup shall consider and report on the following specific issues:
 - a) *Implementation*
 - b) *Review draft legal text*
 - c) *Is the modification advantageous to certain customers?*

6. The Workgroup is responsible for the formulation and evaluation of any Workgroup Alternative CUSC Modifications (WACMs) arising from Group discussions which would, as compared with the Modification Proposal or the current version of the CUSC, better facilitate achieving the Applicable CUSC Objectives in relation to the issue or defect identified.
7. The Workgroup should become conversant with the definition of Workgroup Alternative CUSC Modification which appears in Section 11 (Interpretation and Definitions) of the CUSC. The definition entitles the Group and/or an individual member of the Workgroup to put forward a WACM if the member(s) genuinely believes the WACM would better facilitate the achievement of the Applicable CUSC Objectives, as compared with the Modification Proposal or the current version of the CUSC. The extent of the support for the Modification Proposal or any WACM arising from the Workgroup's discussions should be clearly described in the final Workgroup Report to the CUSC Modifications Panel.
8. Workgroup members should be mindful of efficiency and propose the fewest number of WACMs possible.
9. All proposed WACMs should include the Proposer(s)'s details within the final Workgroup report, for the avoidance of doubt this includes WACMs which are proposed by the entire Workgroup or subset of members.
10. There is an obligation on the Workgroup to undertake a period of Consultation in accordance with CUSC 8.20. The Workgroup Consultation period shall be for a period of 3 weeks as determined by the Modifications Panel.
11. Following the Consultation period the Workgroup is required to consider all responses including any WG Consultation Alternative Requests. In undertaking an assessment of any WG Consultation Alternative Request, the Workgroup should consider whether it better facilitates the Applicable CUSC Objectives than the current version of the CUSC.

As appropriate, the Workgroup will be required to undertake any further analysis and update the original Modification Proposal and/or WACMs. All responses including any WG Consultation Alternative Requests shall be included within the final report including a summary of the Workgroup's deliberations and conclusions. The report should make it clear where and why the Workgroup chairman has exercised his right under the CUSC to progress a WG Consultation Alternative Request or a WACM against the majority views of Workgroup members. It should also be explicitly stated where, under these circumstances, the Workgroup chairman is employed by the same organisation who submitted the WG Consultation Alternative Request.

12. The Workgroup is to submit its final report to the Modifications Panel Secretary on 21st April 2016 for circulation to Panel Members. The final report conclusions will be presented to the CUSC Modifications Panel meeting on 29th April 2016.

13. It is recommended that the Workgroup has the following members:

Role	Name	Representing
<i>Chairman</i>	Ryan Place	Code Administrator
<i>National Grid Representative*</i>	Damian Clough	National Grid
<i>Industry Representatives*</i>	Daniel Hickman	RWE Npower
	Binoy Dharsi	EDF Energy
	Bernard Kellas	SSE
	Andy Kelsall	Scottish Power
Workgroup Alternative	Nicky White	RWE Npower
<i>Authority Representatives</i>	Donald Smith	Ofgem
<i>Technical secretary</i>	Heena Chauhan	Code Administrator

NB: A Workgroup must comprise at least 5 members (who may be Panel Members). The roles identified with an asterisk in the table above contribute toward the required quorum, determined in accordance with paragraph 14 below.

14. The Chairman of the Workgroup and the Modifications Panel Chairman must agree a number that will be quorum for each Workgroup meeting. The agreed figure for CMP260 is that at least 5 Workgroup members must participate in a meeting for quorum to be met.
15. A vote is to take place by all eligible Workgroup members on the Modification Proposal and each WACM. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference). The Workgroup chairman shall not have a vote, casting or otherwise. There may be up to three rounds of voting, as follows:
- Vote 1: whether each proposal better facilitates the Applicable CUSC Objectives;
 - Vote 2: where one or more WACMs exist, whether each WACM better facilitates the Applicable CUSC Objectives than the original Modification Proposal;
 - Vote 3: which option is considered to BEST facilitate achievement of the Applicable CUSC Objectives. For the avoidance of doubt, this vote should include the existing CUSC baseline as an option.

The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.

16. It is expected that Workgroup members would only abstain from voting under limited circumstances, for example where a member feels that a proposal has been insufficiently developed. Where a member has such concerns, they should raise these with the Workgroup chairman at the earliest possible opportunity and certainly before the Workgroup vote takes place. Where abstention occurs, the reason should be recorded in the Workgroup report.
17. Workgroup members or their appointed alternate are required to attend a minimum of 50% of the Workgroup meetings to be eligible to participate in the Workgroup vote.

18. The Technical Secretary shall keep an Attendance Record for the Workgroup meetings and circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the final Workgroup report.
19. The Workgroup membership can be amended from time to time by the CUSC Modifications Panel.

Annex 3 – Workgroup attendance register

A – Attended

X – Absent

O – Alternate

D – Dial-in

Name	Organisation	Role	17/02/2016	23/02/2016	04/03/2016
Ryan Place	Code Administrator	Chair/Technical Secretary	A	A	A
Heena Chauhan	Code Administrator	Technical Secretary	A	X	X
Daniel Hickman	RWE npower	Workgroup member(proposer)	A	X	X
Damien Clough	National Grid	Workgroup member	A	A	A
Nicky White	RWE npower	Workgroup alternative	A	A	D
Bernard Kellas	SSE	Workgroup member	A	X	D
Andy Kelsal	Scottish Power	Workgroup member	D	D	D
Binoy Dharsi	EDF	Workgroup member	A	D	D
Donald Smith	Ofgem	Authority Representative	X	D	D
Keith Burwell	Ofgem	Authority Alternative	D	X	X

P272 ‘Balancing and Settlement Code (BSC) P272: Mandatory Half-Hourly Settlement for Profile Classes 5-8’

- 8.6 The BSC did not obligate the use of Half Hourly Settlement for Meters in Non Half Hourly Profile Classes 5-8. However, some Metering Equipment in Profile Classes 5-8 was already capable of capturing Half Hourly data. By 2014 the vast majority of such Meters were capable of capturing Half Hourly data due to the roll out of ‘advanced’ Meters. P272 proposed to make Half Hourly Settlement mandatory for Profile Classes 5-8 from 1 April 2014, as the Proposer believed that the use of Non-Half Hourly data was not as accurate and masked individual customer behaviour.
- 8.7 The BSC Panel rejected both the Proposed Modification and the Alternative Modification. Ofgem however approved the Alternative with a recommended implementation date of 1st April 2016

CMP241 ‘TNUoS Demand Charges during the Implementation of P272’

- 8.8 Following the implementation of P272 National raised CMP241 which proposed to treat Profile Classes 5-8 which move to being Half-Hourly settled after 1st April 2015 as being Non Half-Hourly settled for all of the 2015/16 Charging Year. This avoided TNUoS Demand liabilities payable by Suppliers being higher than originally forecasted when TNUoS tariffs for 2015/16 were finalised on 31st January 2015.
- 8.9 This proposal was approved by Ofgem in March 2015 for implementation from 1st April 2015.

P322 ‘Revised Implementation Arrangements for Mandatory Half Hourly Settlement for Profile Classes 5-8’

- 8.10 P322 proposed new arrangements to migrate sites, classed as Profile Class (PC) 5-8 with Advanced Meters installed, to Half Hourly (HH) Settlement under the P272 obligations. P322 had the following features:
- Required start and end dates to facilitate a phased approach to implementation
 - Performance Monitoring, most likely through the existing Performance Assurance Framework (PAF)
 - An implementation approach, which considers approved Modification P272 and possible amendment to the P272 Implementation Date by the Authority
- 8.11 Ofgem approved this proposal in June 2015.

CMP247 ‘TNUoS Demand Charges during the implementation of BSC Modification P272 following the approval of BSC Alternative Modification P322’

- 8.12 The implementation of CMP241 allowed all meters which migrated into Measurement Classes E-G to be treated as Half Hourly (HH) if they migrated before the start of each charging year up until the full charging year after the Implementation date of P272. Following P322 and the extension of the implementation date, this option was opened up to all meters which migrated before 1st April 2016. The Proposal aimed to change the CUSC so that only meters which migrated into Measurement Classes E-G before 1st April 2015 would have the option to be treated as HH up until implementation of P272.
- 8.13 This proposal was approved by Ofgem in November 2015.

Annex 5 – Potential Effects on Revenues and Tariffs

8.14 This analysis illustrates the potential effects on revenues and tariffs of CMP260. All underlying demand assumptions start from NHH profiles for Profiles 5-8. When looking at the analysis please bear in mind a lot of estimations and assumptions have to be made, as to be truly accurate you would need to know the exact profile for the meters in question, and their likely behaviour over the Triad periods.

Calculating the effect on NHH Demand tariffs and revenue								
	TwH							
Total NHH demand 1617	26.15							
Profile Classes make up 9.3% of Total NHH annual demand								
Profile Classes 5-8	2.43							
The above analysis was based on a forecast of 180,000 meters.								
Maximum amount of meters which can take up the option			36000					
Meters already charged under this option			3000					
Total Number of Meters affected by CMP260			33000					
Affected Meters/Total Meter Pop			18.33%					
NHH demand affected			0.45	TwH				
New NHH demand base			25.70					
NHH Zonal Revenue	NHH Zonal 1600-1900	NHH Zonal 1600-1900	NHH Zonal	Adjusted NHH Total	Adjusted NHH Tariff	Adjusted Zonal		
Recovery (£m)	Demand (TWWh)	Demand Share (%)	Tariff (p/kWh)	(TWWh)	(p/kWh)	Recovery (£m)		
41.82	0.734600	3%	5.69	0.72	5.79	0.10	£41.11	
107.73	1.756696	7%	6.13	1.73	6.24	0.11	£105.89	
88.17	1.317666	5%	6.69	1.30	6.81	0.12	£86.66	
117.28	2.089255	8%	5.61	2.05	5.71	0.10	£115.28	
122.75	1.897612	7%	6.47	1.87	6.58	0.11	£120.65	
83.91	1.310040	5%	6.40	1.29	6.52	0.11	£82.47	
144.08	2.286714	9%	6.30	2.25	6.41	0.11	£141.62	
135.57	2.158752	8%	6.28	2.12	6.39	0.11	£133.25	
211.22	3.364333	13%	6.28	3.31	6.39	0.11	£207.61	
55.42	0.875636	3%	6.33	0.86	6.44	0.11	£54.47	
136.91	2.081317	8%	6.58	2.05	6.69	0.11	£134.57	
137.22	2.132929	8%	6.43	2.10	6.55	0.11	£134.88	
179.26	2.796197	11%	6.41	2.75	6.52	0.11	£176.20	
91.51	1.345078	5%	6.80	1.32	6.92	0.12	£89.95	
1,652.86	26.15			25.7			£1,624.62	-£28.25
Assumptions/Comments								
This is a worse case scenario assuming all meters migrating before 1st April 2016 take up the option of CMP260								
If you halve the number of meters you simply halve the effect on tariffs and revenues								

Calculating the effect on HH revenues									
Derivation of Capped Zonal Demand NHH Tariffs									
Zone	Zone Name	Total Demand Charge Base: Triad Demand (MW)	Chargeable HH Zonal Triad Demand (MW)		Final Zonal Tariff (£/kW)	HH Zonal Triad Demand Revenue Recovery (£m)	Adjusted Triad (MW)	Adjusted Rev	
1	Northern Scotland	573.60	460.72	-4%	40.44	-18.63	-478.29	-19.34	
2	Southern Scotland	3,186.76	474.12	4%	39.71	18.83	492.20	19.55	
3	Northern	2,216.17	136.54	1%	42.40	5.79	141.75	6.01	
4	North West	3,682.02	909.24	7%	42.30	38.46	943.91	39.92	
5	Yorkshire	3,897.34	972.18	7%	41.96	40.80	1,009.25	42.35	
6	N Wales & Mersey	2,980.87	990.10	8%	42.15	41.73	1,027.85	43.32	
7	East Midlands	4,796.99	1,536.77	12%	44.19	67.92	1,595.36	70.51	
8	Midlands	4,224.54	1,225.84	9%	45.21	55.42	1,272.58	57.53	
9	Eastern	6,045.69	1,455.14	11%	46.01	66.95	1,510.62	69.51	
10	South Wales	2,251.76	925.28	7%	41.78	38.65	960.56	40.13	
11	South East	3,631.50	818.62	6%	48.67	39.85	849.83	41.36	
12	London	4,435.54	1,762.69	13%	51.34	90.50	1,829.90	93.95	
13	Southern	5,594.96	1,976.94	15%	49.55	97.95	2,052.32	101.69	
14	South Western	2,282.26	377.76	3%	48.05	18.15	392.16	18.84	
		49,800.00	13,100.50			602.36	13,600.00	625.33	£22.97
We estimate around 500MW's of extra HH Chargeable revenue if these customers do not Triad avoid									
This equates to an extra £23m of revenue									
If they do not triad avoid the extra revenue offsets the need to raise NHH tariffs or any underrecovery									
However CMP260 assumes that these customers will Triad avoid									