

Ofgem open letter: HH Settlement the way forward

1. Introduction

1.1. Purpose

Thank you for giving us the opportunity to respond to your open letter¹ of 17th Dec 2015.

1.2. Background

Power Data Associates Ltd has been in business since 2003. We provide consultancy services in respect of unmetered energy, gas and electricity metering.

In Great Britain the street lights, traffic signals, CCTV and other 'street furniture' all consume electricity but are not connected through an electricity meter to record consumption. In addition to our consultancy activity, Power Data Associates is a BSC qualified Meter Administrator. Using our bespoke software we calculate the unmetered energy consumption for over a hundred lighting authorities across Great Britain. It is vital that we get the calculations correct as our customers' energy consumption is worth over £180m/year.

1.3. Preface

We welcome the increased focus on HH settlement. There are a number of barriers which are not within the scope of the Settlement Reform Advisory Group (SRAG), most notably the Distribution Use of System Charges (DUoS) and the Transmission Use of System (TUoS) charges. Both DUoS and TUoS make a distinction in their charges between HH or NHH settlement. There is no underpinning rationale for these differences because the customers consumption is identical whether they settle NHH or HH therefore their impact on the *use of the network is identical*, ergo their charges should be the same. In considering the transition to HH settlement the SRAG and Ofgem have not addressed the unmetered activity which accounts for around 1.2% of all settlement.

1.4. Key points

- Fully support to move towards increased HH settlement
- Make DUoS charging settlement agnostic
- Make TUoS charging settlement agnostic
- Require larger unmetered customer to trade HH
- Develop a framework to enable smaller unmetered customers to settle HH

¹ www.ofgem.gov.uk/publications-and-updates/half-hourly-settlement-way-forward

2. Transmission Use of System charges

National Grid set the charge structure for TUoS², which are approved by Ofgem. Some years ago there was a change to the charging structure to charge HH demand customers a triad basis and NHH on a kWh consumption basis throughout the year. This led to a fundamental difference between NHH & HH traded customers. I believe the relevant charges were set to seek a 'fair balance', although I am not familiar with the logic.

The effect of the different charging framework is that a customer can incur very different TUoS charges whether they trade NHH or HH. This makes no sense as the charging framework should be recovering an appropriate proportion of the revenue based on the *use of the transmission network*, which is identical irrespective of the settlement arrangement. Therefore this cost differential can provide a disincentive to move from NHH to HH trading (and vice versa).

Transmission charges are a relatively small part of customers' bills, however they will influence larger customer, or customer with large numbers of small sites, or suppliers with large numbers of customers, so it is important to remove this charging differential.

In the summer of 2015 I discussed this concern with National Grid charging representatives. Although they recognised the concern there does not seem to be any timescale to address the concern. Because of the financial impact on parties when the charging structure changes there may need to be a transitional period for implementation of change. This will introduce further delays to achieving a common charge for NHH & HH trading.

A new TUoS structure may be a combination of triad and usage charges. A new structure should reflect the cost messages for use of the transmission system(s). These cost messages need to be identified so they can follow through into retail customer offerings. Traditionally the cost message has been to minimise the use of the transmission system at peak demand, through the triad charge, but the change a few years ago negated this incentive.

Many large customers have a total pass through of TUoS charges. In 2015 I worked with a customer that was going to save £10k's per year in TUoS charges by changing their settlement arrangements. Their consumption pattern is different from the 'average customer' hence a significant difference in charging between the two settlement methods.

As a result of the BSC Modification P272, et al, changes to require HH settlement of the PC5-8 customers there has had to be a 'tweak' to the TUoS charging to reflect the differences in the charging structures (CMP247³). This is a direct consequence of the different charging structures which would other impact customers/Suppliers/transmission company revenues. In this case the seasonality of the triad charges has been identified as a material impact.

So I would suggest that:

- Ofgem should work with all transmission operators and transmission user customers to initiate a formal review of the charging methodology early in 2016
- The review should result in a preferred charging structure which should be implemented in April 2017, although more likely 2018.
- As part of the transition to the new structure there may need to be consideration of a progressive transition over say two years (2018/19 & 2019/20) to minimise the financial disturbance

² www2.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission/Transmission-network-use-of-system-charges/

³ <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP247/>

3. Distribution Use of System charges

Distribution network companies set the charge structure for DUoS, which are approved by Ofgem. These are determined from using the Common Distribution Charging Methodology (CDCM) under DCUSA governance⁴. These charges have historically differed for NHH & HH metering/settlement. The introduction of P272, et al, raised the concern that DUoS charges may lead to a negative impact for some customers. This in term led to changes to DUoS charging structures for the PC5-8 customers, and other customer types which choose to settle on a HH basis.

The effect of the different charging framework is that a customer can still incur very different DUoS charges whether they trade NHH or HH. This makes no sense as the charging framework should be recovering an appropriate proportion of the revenue based on the *use of the distribution network*, which is identical irrespective of the settlement arrangement. Therefore this cost differential can provide a disincentive to move from NHH to HH trading (and vice versa).

I have participated in a number of the DCUSA working groups to seek to simplify and make the DUoS charging more equitable. There has been progress over number of years, but, in my view, this has not gone as far as it will need to. In July 2015 within the Distribution Charging Methodology Forum, I raised a Methodology Issue called “Use of HH data for DUoS charges”, where I highlighted the drivers, and benefit of the industry moving to a simple DUoS charging framework which simply charged the supplier (who may in turn charge their customer on basis) using the HH data resulting from settlements. The BSC arrangements allocate HH & NHH settlement customer into HH data, the NHH meter reads are allocated to a profile (PC1-8). This data is provided to the relevant Supplier and Distributor split by various customer groupings. The data at this level could be used to charge all DUoS irrespective of whether the customer is metered, or settled on a NHH or HH basis.

As customer migrate from NHH to HH settlement the DUoS billing would be agnostic to the change. A version of this proposal has been discussed previously in DCUSA under the term ‘de-linking’. This term has different meaning for different people; I therefore have avoided using the same term. The issue was described as follows:

Nature of Issue

There is considerable complexity embedded within the CDCM model and associated DUoS charges. One aspect of complexity within the model is associated with converting HH DUoS charges into day, day/night, off peak only charges.

Recent changes to the CDCM have led to calculating the HH equivalent (RAG or BYG) charges and converting them back to single rate, day/night, off peak rates which is published as part of the DUoS charges.

Based on the published DUoS charge structure Distributors use the HH data provided by the settlement arrangements to charge individual supplies for their usage.

Increasingly suppliers are creating more bespoke retail tariffs using the HH data provided by HH meters and going forwards smart meters. Mapping these innovative retail tariffs structures to the existing settlement and DUoS tariffs will become increasingly difficult and/or inaccurate.

This proposal will not result in any meaningful change for existing HH tariffs. But all the remaining tariffs would be treated as “aggregated tariffs” using the profiled data from settlements.

⁴ www.dcusa.co.uk

The proposal would consolidate the following into three enduring DUoS tariffs for import customers:

- **LV Network Domestic** – which combines the existing Domestic Unrestricted, Domestic Two rate, Domestic off peak (related MPAN) and LV Network Domestic
- **LV Network Small Non-Domestic Non-CT** – which combines the existing Small Non Domestic Unrestricted, Small Non Domestic Two Rate, Small Non Domestic Off Peak (related MPAN), LV Network Non-Domestic Non-CT
- **LV UMS (Pseudo HH Metered)** – which would combine the existing NHH UMS category A, B, C & D and LV UMS (Pseudo HH Metered)

The existing HH only tariffs would continue:

- **LV HH Metered** (which equals CT metered)
- **LV Sub HH Metered**
- **HV HH Metered**

In the same way the generation tariffs would be combined as their respective HH tariff equivalent.

Proposed Solution

- It is proposed that the DUoS tariffs are determined and published only as RAG/BYG tariffs
- The Distributors uses the HH data provided by settlements to apply the appropriate RAG/BYG DUoS charges
- The increasing volume of HH metering & associated measurement classes will correctly allocate the HH consumption to the appropriate supplier
- The NHH settlement profiling already allocates the consumption into the appropriate HH times and this activity will decline as more consumption is settled using HH metering data
- New and innovative retail tariffs (linked to TPR) can be created in settlement to reflect increased capability of HH and smart meters which will create appropriate HH data which will attract the correct DUoS charges

Since I prepared the above, the Competition and Markets investigation has reinforced the benefit of HH settlement, as has Ofgem's response. The Ofgem letter is perceived to be part of the enabling of the wider adoption of HH settlement.

There is a Methodology Issues Group meeting scheduled in February to discuss this proposal further.

So I would suggest that:

- Ofgem should work with all Distribution Network Operators and distribution user customers to review of the charging methodology during 2016
- Enable changes to the CDCM during 2016

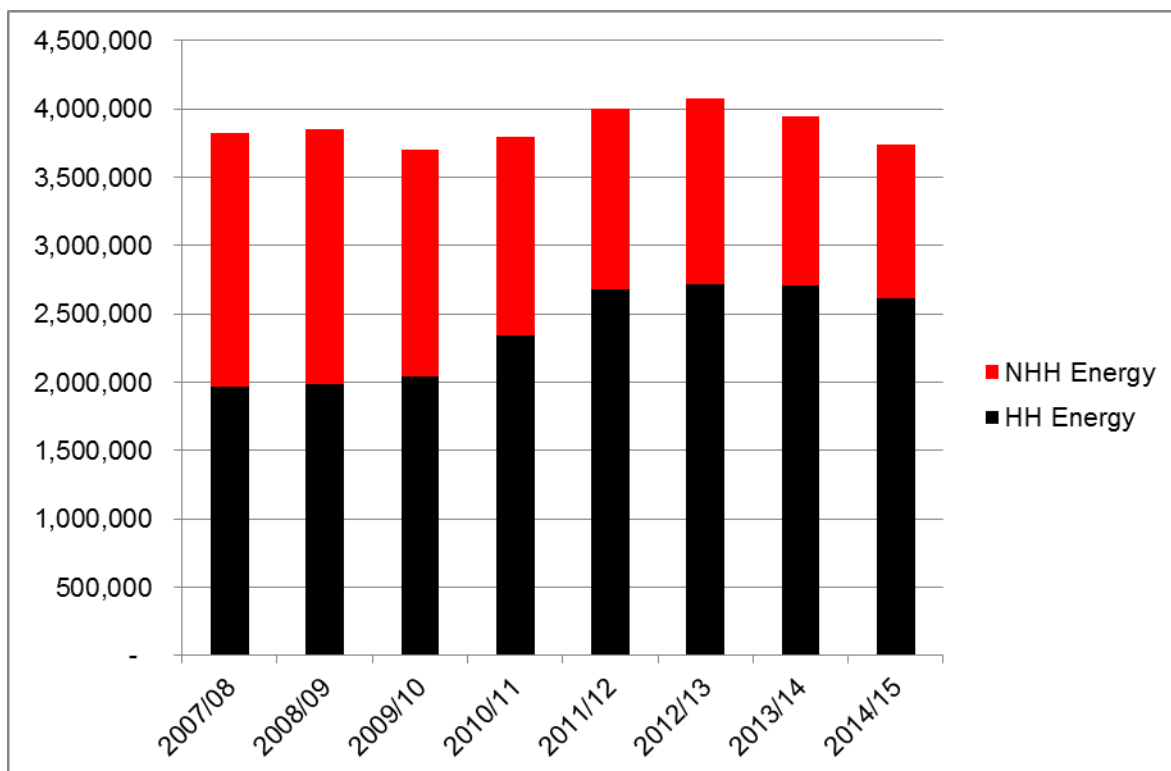
4. Unmetered Supplies

Unmetered supplies account for around 1.2% of all settlement, around 3,750,000MWh in 2014/15. The focus of Ofgem (and Elexon) has been on the metered market. The unmetered market does not have any constraints about size of customer trading on a NHH basis. As a result customers with demand of greater than 10MW (43,000MWh/year or £4.8m/year) have traded on a NHH basis leading to inaccuracies in the settlement profile.

In 2007 around half the unmetered energy was settled on a NHH basis. Progressively we have worked with customers such that now 70% are trading on a HH basis. One of the barriers which we had to overcome was the different DUoS charging applicable to NHH & HH. After several years of debate this barrier was resolved with the implementation of DCUSA CP130⁵. This change was raised to resolve a disincentive to move to HH trading by ensuring that the DUoS charges are identical between HH & NHH unmetered.

There continues to be a disparity between NHH & HH in respect of TUoS as discussed above, although the financial impact is lower.

The following chart shows the NHH/HH split for unmetered energy in settlement. The majority of unmetered energy is used for highway lighting. There have been significant investments in new lighting technology together with policies of part night lighting and dimming that have had a material reduction in the total unmetered energy. This is illustrated by the height of the bars. As the result of our efforts to move more customers to HH trading the split of energy has moved from 50/50 HH/NHH in 2007/08 to 70/30 in 2014/15.



Information sourced from ELEXON. Consumption shown in MWh/year.

The remaining NHH energy is predominantly used by distribution network companies (their own use), highway authority equipment, national companies (advertising, etc.), and small individual customers (parish councils, etc.).

⁵ www.dcusa.co.uk/SitePages/Activities/Change-Proposal-Register-Archive.aspx

The remaining larger unmetered customers and distribution business own use could be moved to HH with a governance 'push' by Ofgem and/or the BSC. Several years ago there was a discussion with the BSC to create a threshold limit above which the MPAN had to trade HH. This proposal was rejected. This approach remains a simple way forward. A proposed approach would be to agree a stepped approach, such that any unmetered MPAN should trade HH with an annual consumption of more than, say:

- 5,000,000kWh from April 2017
- 2,000,000kWh from April 2018
- 1,000,000kWh from April 2019, and
- 500,000kWh from April 2020.

The above requires no system changes, just a timetable and threshold mandated through the BSC (or Ofgem). In total it will only impact about 150 customers. The timetable gives notice to suppliers and customers to ensure they have the correct trading arrangement in place. This should get the HH percentage to 90+%.

It is not economic to trade very small customers using the current HH arrangements. These customers may include parish council with 10 lamps and an energy bill of a few thousand pounds a year. Scotland had a particularly high number of staircase lighting which has been regarded as unmetered due a previous Ofgem determination. There is probably also some opportunity to rationalise the current NHH MPANs which have not been reviewed for many years. For those that remain it is feasible to combine, or aggregate, them together by Supplier & GSP group to determine an aggregated HH consumption. We are hoping to debate some more detailed proposals with Elexon soon.

So I would suggest that:

- Ofgem should work the BSC to agree a mandate and timescale to require HH trading or the remaining large unmetered supplies, and
- Through the BSC, develop an approach to enable the small unmetered customer energy to be settled on a HH basis to be implemented by 2020.

Tom Chevalier, Director