

Modification proposal:	Balancing and Settlement Code (BSC) P272: Mandatory Half-Hourly Settlement for Profile Classes 5-8		
Decision:	The Authority ¹ directs that P272 Alternative proposal be made ²		
Target audience:	National Grid Electricity Transmission Plc (NGET), Parties to the BSC and other interested parties		
Date of publication:	29 October 2014	Implementation Date:	1 April 2016

Background to the modification proposal

The electricity settlement process set out in the Balancing and Settlement Code (BSC) places incentives on suppliers to buy energy to meet their customers' demand. As part of this process, it is necessary to determine how much each supplier's customers use in each half hour of the day (called a 'settlement period').

Historically, most consumers have not had meters capable of recording their half-hourly (HH) consumption. These consumers are assigned to Profile Classes³ and are settled non-half-hourly (NHH) based on estimates of their usage in each settlement period.

Suppliers have a licence obligation⁴ to supply customers in Profile Classes 5-8 (who are generally considered to be larger non-domestic consumers) through an advanced meter from 6 April 2014. Advanced meters must be capable of recording HH consumption data. However, there is no requirement in the BSC for suppliers to settle consumers with advanced meters using their HH consumption data.

The modification proposal

Smartest Energy (the proposer) raised P272 on 20 May 2011 to mandate that consumers in Profile Classes 5-8 are settled HH from 1 April 2014 ('P272 Proposed'). In raising P272, the proposer argued that it would facilitate BSC objectives⁵ (c) and (d).

The workgroup established by the BSC Panel⁶ to assess the modification proposal developed an alternative solution that was identical to P272 Proposed except that it delayed implementation by one year to 1 April 2015 ('P272 Alternative').

BSC Panel recommendation

On 13 December 2012, the BSC Panel recommended unanimously that P272 should be rejected, on the basis that neither P272 Proposed nor P272 Alternative would better facilitate the BSC objectives. The BSC Panel's views reflected those of the workgroup.

The majority of the workgroup argued that the costs of P272 would outweigh the benefits. Noting the opportunity that the roll-out of smart metering presents to use more granular data in settlement, they also suggested that it would be more efficient to implement changes for all consumers together rather than reform the arrangements for Profile Classes 5-8 first. Furthermore, the majority of the workgroup expressed concerns that the way in which distribution network charges are calculated and billed for HH

¹ The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.

² This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

³ Profile Class is defined in Annex X-2 of the BSC.

⁴ As set out in Standard Licence Condition 12.21 of the electricity supply licence.

⁵ As set out in Standard Condition C3(3) of NGET's Transmission Licence, see:

<http://epr.ofgem.gov.uk/index.php?pk=folder380751>

⁶ The BSC Panel is established and constituted pursuant to and in accordance with Section B of the BSC.

consumers could increase costs for consumers in Profile Classes 5-8 if P272 is implemented.

Impact assessment and consultation

In certain circumstances, Ofgem has a statutory duty to carry out an impact assessment on proposals that it considers are 'important' within the meaning of section 5A of the Utilities Act 2000. We considered that P272 meets the definition of important because it would have a significant impact on suppliers and implications for consumer bills and engagement in the market.

In fulfilment of this statutory duty, on 29 October 2013 we published our impact assessment⁷ on P272 for consultation. This document set out that we were minded to approve P272 Alternative.⁸ Our impact assessment also recognised that there was not currently a Distribution Use of System (DUoS) HH tariff designed for consumers in Profile Classes 5-8. We noted that there was work underway to propose a change to the Distribution Connection and Use of System Agreement (DCUSA) to create new HH tariffs for these consumers. We stated that we would monitor progress of this modification proposal and, in reaching a final decision on P272 Alternative, would take account of any further developments.

Of 22 responses to our consultation, more than half emphasised the interactions between P272 and DUoS charging arrangements. These respondents reinforced our view that our decision on P272 Alternative should take account of ongoing changes to these arrangements. To allow this to happen, we directed the BSC Panel on 6 February 2014 to consult on a revised proposed implementation date for P272 Alternative.⁹

On 11 September 2014, the BSC Panel unanimously agreed a revised proposed implementation date for P272 Alternative of 1 April 2016. This followed a consultation on this date issued by Elexon¹⁰ on 1 August 2014. The Panel also approved and submitted to the Authority revised legal text for P272 Alternative. This was updated to reflect the revised proposed implementation date.

The Authority's decision

We have considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 18 December 2012. We have considered and taken into account the responses to ELEXON's consultations that are attached to the FMR¹¹ and its consultation on a revised implementation date. We have also taken account of responses to our impact assessment consultation. Alongside this letter, we have published a document showing how we revised our supporting analysis to take account of respondents' views.¹² We have concluded that:

⁷ Our impact assessment and responses to the consultation are available on the Ofgem website: <https://www.ofgem.gov.uk/publications-and-updates/balancing-and-settlement-code-bsc-p272-mandatory-half-hourly-settlement-profile-classes-5-8-%E2%80%93-draft-impact-assessment-consultation>

⁸ There was not sufficient time to approve P272 Proposed in the absence of Ofgem directing the BSC Panel to consult on a revised implementation date. This is because the Final Modification Report required Ofgem to make a decision on P272 Proposed by 14 February 2013 in order to ensure the correct lead time for implementation of the modification.

⁹ Our letter to the BSC Panel provides further information on the reasons for issuing the direction and is available on the Ofgem website: <https://www.ofgem.gov.uk/ofgem-publications/85912/directiontobscpanelonmodificationp272.pdf>

¹⁰ The role and powers, functions and responsibilities of Elexon are set out in Section C of the BSC.

¹¹ BSC modification proposals, modification reports and representations can be viewed on the Elexon website at www.elexon.com

¹² This document is available on the Ofgem website here: <http://www.ofgem.gov.uk/publications-and-updates/balancing-and-settlement-code-bsc-p272-mandatory-half-hourly-settlement-profile-classes-5-8>

1. implementation of P272 Alternative will better facilitate the achievement of the applicable objectives of the BSC; and
2. directing that the modification be made is consistent with the Authority's principal objective and statutory duties.¹³

Reasons for the Authority's decision

We consider that P272 Alternative will facilitate achievement of applicable BSC objectives (c) and (d) and is neutral to the other applicable objectives. Our decision is informed by the work we undertook to update our analysis on the impacts of P272, taking account of responses to our consultation.

BSC Objective (c) – promoting effective competition in the supply of electricity and (so far as is consistent therewith) promoting such competition in the sale and purchase of electricity

We consider that P272 Alternative will promote competition in the supply of electricity to larger non-domestic consumers by incentivising suppliers to offer a wider range of offers for customers. This will help to create a market that delivers better outcomes for these consumers, for example through more competitive pricing and improved customer service.

By mandating use of HH consumption data in settlement, P272 Alternative will more accurately allocate the costs that suppliers incur in purchasing and transporting energy to larger non-domestic consumers. This will put in place stronger incentives on suppliers to reduce these costs by encouraging more efficient consumption among their customers, including through demand-side response (DSR).

To do so, suppliers will need to innovate in the products and services that they offer. For example, by developing time-of-use tariffs that reward consumers for moving load to periods when electricity is cheapest. This includes dynamic time-of-use tariffs where the price or pricing structure varies in response to changes in market conditions. Such innovation, together with more active selling of these offerings, will increase competitive pressure on suppliers.

Some respondents to our impact assessment consultation argued that the NHH arrangements allow suppliers to realise the benefits of offering time-of-use tariffs. Some also noted that suppliers can voluntarily move customers to HH settlement if there is demand.

We recognise that it is possible to configure the NHH arrangements to accommodate certain static time-of-use tariffs. However, the incentives on suppliers to do so remain limited. This is because consumption in each settlement period is based on estimates, such that suppliers are insulated from the true value of any changes in when their consumers use energy. This affects the rewards suppliers can provide to consumers, and hence the products they offer. Moreover, the NHH arrangements do not allow suppliers to offer dynamic time-of-use tariffs. These tariffs could allow suppliers to unlock more of the value of DSR and hence pass on larger cost savings to consumers.

Moreover, we consider that only mandatory HH settlement for all consumers in Profile Classes 5-8 places incentives on suppliers to encourage load shifting away from periods of highest demand. At present, the incentive for suppliers, albeit limited, is to target

¹³ The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Electricity Act 1989.

consumers with flatter consumption profiles that use less energy at peak than is assumed by the load profile. This allows suppliers to reduce their costs without the need for any behaviour change that helps to deliver the system-wide benefits of DSR. At the same time, suppliers are less likely to offer time-of-use tariffs to consumers using electricity at peak times. This is because the prices they offer will not be competitive with other suppliers' flat tariffs that are settled against an average load profile.

In addition to strengthening incentives on suppliers, we agree with the minority of the workgroup that P272 Alternative will also promote competition by reducing costs that new entrants and smaller suppliers find more difficult to absorb. This includes the costs of setting aside capital to cover the risk of fluctuations in imbalance charges over time. Our analysis shows that P272 Alternative would give suppliers greater certainty on these charges sooner, thereby reducing their risk exposure. P272 Alternative will also make it easier for suppliers to forecast their customers' demand thereby reducing imbalance risk. This is because consumers settled HH pick up less of the error caused by mismatches between the amount of energy allocated through settlement and the volume that was used. This spreading of error can be difficult to predict, particularly for new entrants that are less familiar with historical trends.

The majority of the workgroup argued that P272 would not better facilitate competition. One reason given was that DUoS charges could be higher if P272 is implemented. As set out above, this was because there was not a DUoS HH tariff designed for consumers in Profile Classes 5-8. In our impact assessment we noted that, as a result, the charge that this group of customers would face if they moved to HH settlement may be disproportionate to the charges they impose on the network.

We welcome the steps the industry has since taken to coordinate across the BSC and DCUSA to address this issue. On 15 October 2014, we approved DCUSA Change Proposal (DCP) 179 that introduces new HH DUoS tariffs for consumers in Profile Classes 5-8 on 1 April 2015.¹⁴ We have also approved BSC P300, which allows for aggregation of DUoS bills for some consumers in Profile Classes 5-8 from 5 November 2015.¹⁵

Another reason the majority of the workgroup argued that P272 would not better facilitate BSC objective (c) was that the costs would outweigh the benefits. We consider the net benefit of P272 Alternative below in our assessment of the modification against our statutory duties.

BSC Objective (d) – promoting efficiency in the implementation and administration of the balancing and settlement arrangements

We estimate that suppliers will incur higher costs in managing the settlement process for customers in Profile Classes 5-8 if P272 Alternative is implemented. This is because of the need to manage larger volumes of data. Some suppliers that responded to our impact assessment consultation argued that we had underestimated these costs. We used the information gathered as part of the workgroup's assessment of P272. This information showed that suppliers would incur differing costs if P272 is implemented, particularly ongoing costs for meter maintenance, data collection and data aggregation services provided by supplier agents. We remain of the view that competitive pressure will drive all suppliers to implement P272 Alternative as efficiently as possible, including by improving their procurement processes to obtain supplier agent services.

¹⁴ For our decision letter on DCP179, please see: <https://www.ofgem.gov.uk/ofgem-publications/90785/dcp179d.pdf>

¹⁵ For our decision letter on P300, please see: <https://www.ofgem.gov.uk/ofgem-publications/90786/p300d.pdf>

One reason the majority of the workgroup argued that P272 would not better facilitate BSC objective (d) was that the costs would outweigh the benefits. We consider the net benefit of P272 Alternative below in our assessment of the modification against our statutory duties.

Another reason given by the workgroup was that it could be more efficient to implement HH settlement for Profile Classes 5-8 as part of a holistic solution for all NHH consumers. We have assessed P272 Alternative on its own merits against the BSC Objectives and our statutory duties. We see no reason why it should be delayed if it is in the interests of existing and future consumers. Moreover, we note that consumers in Profile Classes 5-8 have different characteristics to other NHH consumers, such that different reforms (with different system requirements) may be required.

While P272 Alternative will increase the costs of managing the settlement process, it will also improve the quality of consumption data that is used. Settling consumers using HH consumption data makes errors in consumption less likely to occur and, when they do arise, easier to detect and remedy. Moreover, we expect that P272 Alternative will reduce the costs of services provided by supplier agents for existing HH consumers. This is because it will double the size of the HH market, which enables the fixed costs of supplier agents to be spread over a larger number of consumers. A larger market could also encourage new entry.

Taking these considerations of cost and quality together, on balance we consider that P272 Alternative does promote efficiency in the implementation of the balancing and settlement arrangements.

Ofgem's statutory duties

We consider that P272 Alternative protects the interests of consumers both present and future by promoting value for money, a more sustainable energy system, and by helping to maintain security of supply.

Above we set out how P272 Alternative will encourage suppliers to offer of a range of new products and services to consumers which can lead to more efficient use of energy. Where consumers shift load in response to price signals they can benefit from lower bills. This will reflect the savings that suppliers can realise from lower average generation costs and avoided or delayed investment in network and generation capacity.

Some respondents to our impact assessment consultation argued that we had overestimated the potential for load shifting among consumers in Profile Classes 5-8. These respondents argued that larger non-domestic consumers are unable to shift load for business reasons or cannot engage with time-of-use tariffs. Our assessment of the potential for load shifting used evidence from studies undertaken by the Department of Energy and Climate Change and others. We remain of the view that this provides a reasonable basis for assessing how P272 Alternative can help to create the right environment for more flexible demand for electricity through DSR.

The workgroup and some respondents to our impact assessment consultation argued that the costs of P272 would outweigh the benefits or suggested that the net benefit was uncertain. For those impacts that we quantified, we found that P272 Alternative is broadly cost neutral for consumers. However, we consider that our quantitative analysis provides a conservative estimate of the cost savings for consumers particularly those stemming from DSR. For example, we only considered shifting of load from peak to off-peak periods. Furthermore, we did not quantify the potential for its value to increase over time if expectations regarding wind generation and electrification of transport are met.

Our quantitative analysis did not look at the wider impacts of dynamic time-of-use tariffs and load shifting on sustainability and security of supply. DSR provides a way of managing the variability of intermittent, low-carbon forms of generation. In this way, it can help reduce the costs of connecting such generation and support the transition to a more sustainable electricity system. DSR availability can also provide the system with spare capacity. This can reduce the volume of generation that needs to be available to maintain any security of supply level. Maximising these system efficiencies requires all customers in Profile Classes 5-8 to be settled on HH basis.

We concluded that our estimate of the cost savings from DSR was conservative based on comparison with other studies on the potential benefits that load shifting can deliver.¹⁶ These studies model the value of DSR in the context of changes in the generation mix and consumption patterns. Some also assess how DSR could be used to respond at short notice to changes in system conditions. The findings of these studies show that DSR could reduce overall electricity costs significantly in the longer term, underlining our view that we have been highly conservative in our modelling.

We recognise that not all consumers in Profile Classes 5-8 will benefit from lower bills. Bills of some consumers may be higher if their half-hourly consumption makes them more expensive to serve compared to being settled NHH. For example, if they use more energy during peak periods than is assumed by the load profiles used to settle NHH consumers. We consider that consumers in Profile Classes 5-8 are in a position to understand their consumption patterns and take informed decisions on how they use energy. This includes how they could respond to time-of-use price signals to change their demand patterns. Exposing them to their true cost of consumption will encourage them to take energy efficiency measures and/or take steps to consume more flexibly.

Some consumers in Profile Classes 5-8 have contracted directly with supplier agents for meter maintenance, data collection and/or data aggregation services. In our impact assessment, we recognised that these consumers could incur fees if the contracts they hold need to be amended or terminated to implement P272 Alternative. For example, this could occur if they have contracted with a supplier agent that is qualified to operate in the NHH market only. Following our letter to the BSC Panel on 6 February 2014, we requested information from suppliers and supplier agents to inform our assessment of this issue. We found that only a small number are at risk of termination charges. Moreover, the information we received suggested that termination and amendment fees are small in the context of typical annual electricity bills for consumers in Profile Classes 5-8 and the overall benefits of HH settlement.

P272 Alternative implementation date

Taking account of the proposed implementation dates of DCP179 and P300, and following their consultation with BSC parties,¹⁷ the BSC Panel recommended that P272 Alternative should be implemented on 1 April 2016. In accordance with BSC Section F 2.11.20, we confirm that we accept the Panel's revised proposed implementation date.

We note that some respondents argued for a later implementation date. They said that implementation of P272 Alternative by 1 April 2016 did not leave sufficient time to make changes to systems and could mean interruptions to customer contracts. One respondent also said that more time was needed in the context of significant regulatory change. Three respondents suggested alternative approaches to implementation, including

¹⁶ We compared our analysis to two studies: Pöyry, November 2010. *Demand side response: Conflict between supply and network driven optimisation*; and Imperial College London and NERA Economic Consulting, August 2012. *Understanding the balancing challenge*.

¹⁷ And other persons as named in BSC Section F 2.1.10 (a).

defining an implementation date after DCP179 and P300 are in place or transitioning customers to HH settlement on expiry of their supply contract.

We consider that the revised proposed implementation date of P272 Alternative gives enough time for market participants to implement the modification. We note that the publication date of this decision letter gives a longer lead time for implementing system and process changes, plus managing consumer engagement, than was originally recommended by the P272 workgroup.

We recognise that the industry is managing significant regulatory change at present. However, only one respondent to the BSC Panel's consultation argued that the volume of regulatory change would prevent them from implementing P272 Alternative by 1 April 2016. Moreover, we consider the timely implementation of changes to industry codes (including the BSC) is essential to enable consumers to realise the benefits of advanced meters. For these reasons, we do not consider that other regulatory change is a reason to delay implementation of P272 Alternative and delay when consumers will receive the benefits.

Two respondents also said that the Change of Measurement Class (CoMC) process for transitioning customers from NHH to HH settlement is not fit-for-purpose. We note that the CoMC process has recently been reviewed by the industry, with changes due to be implemented on 25 June 2015. If further changes are necessary to enable a smooth transition, then industry has processes in place to make such changes.

Decision notice

In accordance with Standard Condition C3 of NGET's Transmission Licence, the Authority hereby directs that modification proposal BSC P272 Alternative: *Mandatory Half-Hourly Settlement for Profile Classes 5-8* be made.

Rob Church – Partner, Retail Markets

Signed on behalf of the Authority and authorised for that purpose