

Modification proposal:	Balancing and Settlement Code (BSC) P439: Enabling EDA-based Data Integration Platform Development (P439)		
Decision:	The Authority ¹ directs that this modification be made ²		
Target audience:	National Grid Electricity System Operator (NGESO), Parties to the BSC, the BSC Panel and other interested parties		
Date of publication:	25 May 2022	Implementation date:	Five working days after Authority decision date

Background

Market-Wide Half-Hourly Settlement (MHHS) will utilise the potential of smart meters to send accurate signals to suppliers about the cost of serving their customers throughout each day. This will place incentives on retailers to offer new tariffs and products that encourage more flexible use of energy and help consumers to lower their bills. Making best use of existing infrastructure should reduce the need for future generation and network investment. This will help decarbonise the sector cost-effectively, to the benefit of all consumers and wider society.³

We launched our Electricity Settlement Reform Significant Code Review⁴ (SCR) in July 2017 to develop and then, subject to an Impact Assessment, implement a transition from the existing settlement arrangements to MHHS. We published our MHHS Decision, Full Business Case and Final Impact Assessment⁵ in April 2021. The planned end date is October 2025.

In July 2021, Ofgem published a preliminary decision⁶ in support of the Architecture Working Group's (AWG) recommendation that industry develop Event Driven Architecture (EDA) to

¹ References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work. This decision is made by or on behalf of GEMA.

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

³ Our [MHHS Final Impact Assessment](#) estimated the net benefit for consumers of £1.6bn-£4.5bn from 2021-2045.

⁴ See the [Electricity Settlement Reform Significant Code Review: Launch Statement, revised timetable, and request for applications for membership of the Target Operating Model Design Working Group](#).

⁵ See the [Electricity Retail Market-wide Half-hourly Settlement: Decision and Full Business Case](#).

⁶ See [MHHS - Preliminary decision on the AWG TOM recommendation reference architecture | Ofgem](#), July 2021.

enable the MHHS Target Operating Model (TOM), subject to further information supporting this conclusion. We then received and evaluated new information on the costs of building and operating such a system, including the relative costs of partly or fully replacing ElectraLink’s Data Transfer Network (DTN), the interaction between different communication systems and the EDA, and the security aspects of any new system. We also considered the potential for future innovation and wider developments on data handling in the energy sector. Taking all this into account, Ofgem decided that, as recommended by the AWG, the industry should develop a hybrid architecture comprising the DTN with minor modifications and a new EDA platform to meet the requirements of the MHHS TOM.⁷

On 20 January 2022, the Authority published a consultation⁷ on which party should be responsible for the ongoing governance, operation and funding of the new EDA platform. In parallel, MHHS Programme has been moving forward with the definition and sourcing of the EDA. To facilitate this, the Authority proposed a modification to the BSC to enable BSCCo (in its role as MHHS Implementation Manager) to undertake activities relating to the development of the EDA. This modification was required regardless of the outcome of Ofgem’s consultation on the enduring EDA governance arrangements. Subsequently, on 21 April 2022, Ofgem published its decision that, initially, the Balancing and Settlement Code Company (BSCCo) should govern the EDA through the Balancing and Settlement Code (BSC).⁸

The modification proposal

On 5 April 2022, Ofgem published an update informing interested parties of its intention to raise a modification to the BSC to enable EDA development.⁹ On 6 April 2022, Ofgem issued a Direction to BSCCo setting out the proposed modification and the timetable for the BSC Panel to progress it.¹⁰ This was BSC modification proposal P439 (the proposal), which was an Authority Led SCR Modification Proposal pursuant to Section F5.3A.1 of the BSC.

⁷ See [Decision on the reference architecture of the MHHS Target Operating Model](#), December 2021.

⁸ In due course, there will need to be a detailed BSC modification to introduce enduring governance, representation and funding mechanisms for the EDA. Ofgem expects to raise such a modification using the Authority’s SCR powers.

⁹ See [Authority Led SCR modification proposal on developing an Event Driven Architecture for MHHS](#), 5 April 2022.

¹⁰ See [Direction to BSCCo concerning a BSC Modification to enable development of the MHHS EDA](#), 6 April 2022.

The modification enables the MHHS Implementation Manager to develop the systems and processes that may be necessary to implement the MHHS EDA, which will be known as the Data Integration Platform (DIP). The proposed modification is concerned only with the development of the DIP and not with its ongoing operation.

As stated in the Modification Proposal, the activities that Elexon are permitted to undertake are outlined in [BSC Section C 'BSCCo and its Subsidiaries'](#). Currently, the activities stipulated in BSC Section C surrounding Elexon's role as the MHHS Implementation Manager do not include provisions for development or funding of the DIP. The proposed legal text will amend the provisions for BSCCo as MHHS Implementation Manager to:

- include specific details to allow BSCCo to develop the systems and processes that may be necessary to implement the Data Integration Platform;
- procure a service provider to develop the system;
- consult with potential enduring operators of the system; and
- transfer the system to an enduring DIP system operator.

The proposed legal text provides for DIP system development costs to be included as MHHS Implementation Costs. The proposed legal text also allows for a potential enduring DIP service operator to take over the development of the DIP if directed by the Authority and for the associated costs to remain MHHS Implementation Costs.

The desired outcome from this modification is to enable BSCCo, in its capacity as MHHS Implementation Manager, to design, build, test, and implement the DIP system before transferring it to an enduring DIP system operator for ongoing operation and governance. As noted above, following Ofgem's decision on EDA governance, the DIP system operator will be BSCCo in its role as BSC code administrator. There are several benefits of utilising an EDA-based DIP for MHHS. This type of system is flexible and extendable, so it can facilitate future industry changes. An EDA-based DIP could also streamline existing processes and assist other use cases. Developing the EDA-based DIP through the MHHS Implementation Manager can help ensure that development of the DIP will align with the MHHS Implementation Timetable, and its key milestones that rely on the DIP development.

The Authority, as proposer, considered that the proposal better facilitates Applicable BSC Objectives (c) and (d) and is neutral against all the other objectives.¹¹

We considered that it would better facilitate Applicable BSC Objective (c) as it will facilitate the delivery of the EDA-based DIP, which is central component of delivering MHHS. Successfully implementing MHHS will benefit competition by developing a more effective energy market and by encouraging increased market entry by new suppliers and others who will offer new and innovative products and services to consumers. MHHS will create a more flexible electricity wholesale market and facilitate the development of new, innovative business models, products and services that consumers can engage with in the future.

In its 2016 Energy Market Review findings, the Competition and Markets Authority (CMA) found that “the absence of a firm plan for moving to half-hourly settlement for domestic electricity customers is a feature of the market for domestic and small and medium-sized enterprises (SMEs) retail electricity supply in Great Britain that gives rise to an adverse effect on competition through the distortion of suppliers’ incentives to encourage their customers to change their consumption profile, which overall reduces the efficiency, and therefore the competitiveness, of domestic and microbusiness retail electricity supply.”

Our decision to implement MHHS seeks to remedy this adverse effect on competition. This BSC modification will enable development of the EDA, which is a central component of MHHS.

We considered that the modification would also better facilitate Applicable BSC Objective (d) as the EDA-based DIP will support MHHS Implementation, which in turn will result in a faster and more efficient settlement system and processes (as set out in our MHHS Decision Document of April 2021).

¹¹ Applicable BSC Objective (c) is “promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity”. Applicable Objective (d) is “promoting efficiency in the implementation and administration of the balancing and settlement arrangements”.

BSC Panel¹² recommendation

At the BSC Panel meeting on 12 May 2022, the BSC Panel (Panel) unanimously agreed that P439 would better facilitate the BSC Objectives. The Panel therefore recommended its approval. In particular, the Panel considered that P439 better facilitated Applicable BSC Objectives (c) and (d) and agreed with the evaluation set out in the Final Modification Report.

Our decision

We have considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 16 May 2022. We have considered and taken into account the responses to the industry consultation, which are attached to the FMR. We note that, as a result of one response, an amendment was made to the legal text. We further note that this amendment was made before the Panel held its final discussion and made its recommendation.¹³ We have considered the amended legal text and concluded that:

- implementation of the modification proposal will better facilitate the achievement of the applicable objectives of the BSC;¹⁴ and
- directing that the modification be made is consistent with our principal objective and statutory duties.¹⁵

Reasons for our decision

We consider this modification proposal will better facilitate BSC objectives (c) and (d) and that it has a neutral impact on the other Applicable BSC Objectives.

(c) promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

¹² The BSC Panel is established and constituted pursuant to and in accordance with Section B of the BSC and [Standard Special Licence Condition C3 of the Electricity Transmission Licence](#).

¹³ BSC modification proposals, modification reports and representations can be viewed on the [Elexon website](#).

¹⁴ As set out in [Standard Condition C3\(3\) of the Electricity Transmission Licence](#).

¹⁵ 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.

In its 2016 Energy Market Investigation¹⁶, the CMA concluded that the absence of a firm plan for moving to MHHS gave rise to an adverse effect on competition, through the distortion of suppliers' incentives to encourage their customers to change their consumption profile, which overall reduces the efficiency, and therefore the competitiveness, of domestic and microbusiness retail electricity supply.

This proposal will enable the development of the EDA-based DIP, which is a central component of delivering MHHS. The proposal will therefore help to remedy the adverse effect on competition identified by the CMA. MHHS will benefit competition by developing a more effective energy market and encouraging increased market entry by new suppliers and others who will offer new and innovative products and services to consumers. Therefore, we consider that this proposal better facilitates BSC Objective (c).

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

The EDA-based DIP will support MHHS Implementation, which in turn will result in a faster and more efficient settlement system and processes. Therefore, we consider that this proposal will better facilitate the objective of promoting efficiency in the implementation and administration of the balancing and settlement arrangements.

Next Steps

As noted above, this modification is concerned only with the development of the DIP and not with its ongoing operation. Further to our decision on EDA governance, it is for BSCCo - in its role as BSC administrator - to develop and consult in a timely way on proposals to modify the BSC to introduce enduring arrangements for governing, funding and operating the DIP. We expect to use our SCR powers to raise such a modification to the BSC once it has been developed.

¹⁶ See paragraph 187 on page 44 of the CMA's [Energy Market Investigation Final Report](#), June 2016.

As noted in our Update¹⁷ on 5 April 2022, and earlier updates, we intend to make further code modifications under this SCR and/or use our powers under the Smart Meters Act 2018 as the transition to full MHHS implementation progresses. This SCR will remain open until we have made our final decision in relation to the final modification, and we will confirm when we consider that to have happened.

Decision notice

In accordance with Standard Condition C3 of the Transmission Licence, the Authority hereby directs that modification proposal BSC P439: 'Enabling EDA-based Data Integration Platform Development' be made.

The Authority also directs that this Modification Proposal, as a Code-only change, should be implemented five Working Days after Ofgem approval. This will ensure that there is no undue delay in enabling BSCCo as MHHS Implementation Manager to begin development of the DIP following Ofgem's decision, and therefore no undue delay to the implementation of and benefits from MHHS.



Rachel Clark
Deputy Director Retail

Signed on behalf of the Authority and authorised for that purpose

¹⁷ See [Authority Led SCR modification proposal on developing an Event Driven Architecture for MHHS](#), 5 April 2022.