

To:
Reg Platt
CEO
Emergent Energy Systems Ltd
86-90 Paul Street
London EC2A 4NE

Email: sandbox@ofgem.gov.uk

Date: 11/11/24

To: Relevant DNO(s)

Reference number: ERS/008

Dear Mr Platt

This letter, which replaces that sent to you on 20 January 2023, confirms our decision to extend the length of the Sandbox derogation and consent which apply to the relevant Distribution Network Operator(s) (DNO(s)) (the "Relevant Party") in regard to Emergent Energy's Sandbox trial by a further 2 years. This amendment does not affect the nature or scope of any other parameters of the trial.

On 5 July 2024, Emergent submitted a request to extend the Sandbox trial timelines by a further 2 years. The reasons provided by Emergent for the extension are:

- Emergent are trialling a solution for correctly allocating fixed Distribution Use of System (DUoS) charges on Exempt Distribution Networks (EDNs) with third party electricity supply. The Distribution Connection and Use of System Agreement (DCUSA) has previously proposed a solution for this issue as part of DCP328, but it was rejected by the working group. An extension would provide Emergent with an opportunity to fully test a potential alternative to the rejected solution and feedback the learnings to the DCUSA while the trial is ongoing, supporting the development of appropriate DUoS charging arrangements for EDNs with third party electricity supply.
- The solution tested to allow customers located on EDNs better access to other suppliers as part of Emergent's Balancing and Settlement Code (BSC) Sandbox has been proven to be successful and was implemented on 24 September 2024 as part of the [BSC modification P455](#). Emergent's DCUSA Sandbox seeks to extend the methodology tested in the BSC trial and an extension to the DCUSA Sandbox timelines would allow Emergent to test the DCUSA solution alongside newly implemented BSC approach.

The request to extend Sandbox project timelines has been considered by Ofgem and the DCUSA Panel which agreed that it would be appropriate in the circumstances to extend the Sandbox trial deadline by a further 2 years. The original decision letter and direction follow, updated to reflect the 2 year extension.

Yours sincerely

A handwritten signature in blue ink that reads "Kevin Baillie". The signature is written in a cursive style with a horizontal line underlining the name.

Kevin Baillie

Principal Policy Expert

Signed on behalf of the Authority and authorised for that purpose.

Sandbox decision: derogation to not comply with Standard Licence Condition (SLC) 13A.4 and consent to not comply with SLC 14 (Part B) of the Electricity Distribution Licence

This letter sets out the decision of the Gas and Electricity Markets Authority (the "Authority") to grant the relevant Distribution Network Operator (DNO) (the "Relevant Party"), a derogation to not comply with Standard Licence Condition (SLC) 13A.4 of the Electricity Distribution Licence in relation to the application of the Common Distribution Charging Methodology (CDCM), and consent to not comply with Part B of SLC 14 requiring the compliance of charging statements with the relevant charging methodology. The Authority grants this derogation and consent subject to the provisions below and conditions specified on pages 4 and 5.

This application was made by a third party, Emergent Energy Systems Ltd (Company Number 10403572, "Emergent Energy") which will be responsible for the administration, monitoring and reporting related to this Sandbox trial. Northern Powergrid is the partner DNO for the trial.

Emergent Energy applied to the Distribution Connection and Use of System Agreement (DCUSA) Sandbox which provides temporary derogations for pre-competitive innovation trials. However, the specific support required for this scheme is relief for a Relevant Party from requirements to consistently apply the charging methodologies. As these obligations relate to DNOs' licence conditions, only Ofgem can provide the necessary formal derogation and consent. ElectraLink and the DCUSA Panel led the strategic and risk assessment of this proposed trial, and recommended its approval to Ofgem.

At the end of the trial period, Northern Powergrid or another Relevant Party could raise a Change Proposal¹ to permanently modify the DCUSA. Alternatively, the scheme must revert to pre-trial arrangements.

The relief applies from the agreed commencement date and remains effective for a trial period of 2 years, and up to an additional 2 years granted as an extension, unless revoked earlier or varied in writing by the Authority:

- Emergent must inform the Authority and ElectraLink in writing of the expected commencement date, which must be within 4 months of the date of this letter.
- Any change in circumstances relevant to the consent and derogation must be reported to the Authority and ElectraLink without delay.
- ElectraLink will advise the Authority about any response required in the event of a change in circumstances, and when a relevant Change Proposal is raised.

Background

The [Energy Regulation Sandbox](#) was developed to support innovators in trialling and bringing to market new products, services, methodologies and business models. The Sandbox toolkit includes the DCUSA Sandbox, which can be applied for in combination with, or separate from the other available Sandbox tools.

¹ Section 1C (change control) of the DCUSA makes provision for the terms of the agreement to be varied via a change control process. A Change Proposal is raised to commence the variation of the agreement.

The Authority received an application from Emergent Energy on 28th March 2022 for a derogation to be granted from SLCs 13 and 14 of the Electricity Distribution Licence. This would enable relevant DNOs to participate in the trial of a new rebate methodology for the allocation of fixed network charges to consumers located on Exempt Distribution Networks (EDNs).

Context

Emergent Energy establishes and operates microgrids² within residential housing developments, typically deploying solar PV generation, and potentially heat pumps, EV chargers and shared battery storage. Emergent enables housing companies (usually social housing providers) the opportunity to benefit from lower decarbonisation costs and reduced energy bills for residents by either funding their own microgrid, or having capital funding provided. Emergent and their clients recognise that residents of microgrids must be able to exercise their right to switch their electricity supply. However, Emergent believes current industry arrangements (in DCUSA and the Balancing and Settlement Code (BSC)) for enabling third party access to microgrids are not efficient nor effective at facilitating domestic consumers' switches to competitive licensed supply.

In addition, applying the proposed DCUSA charging arrangements for EDNs under DCUSA change proposal (DCP) 328 "*Use of system charging for private networks with competition in supply*"³, will further restrict the ability of residents to opt-out and choose another supplier.

The trial

As such, on 11th August 2020 Emergent applied for a Sandbox trial derogation from the BSC's rules (subsequently [approved](#)) about the submission of settlement data from a metering system at the interface between a premises and the total system. The BSC trial objectives are to allow customers located on EDNs better access to other suppliers, whilst maintaining and improving the accuracy of reporting, and the allocation of electricity consumption in the balancing market.

The BSC trial allows for meter reading submissions based on the aggregation of on-site customer meters that total the value that would have been calculated using a differencing arrangement (a methodology provided for in the BSC). This enables each supplier on the site to be settled for the correct amount of consumed or generated electricity without entering into bilateral arrangements with all other suppliers operating on the site. This methodology is expected to reduce the overheads associated with supplying customers located on EDNs, thereby improving access to the competitive retail electricity market.

² A microgrid is a network which distributes power without the need for an electricity distribution licence. They are otherwise known as Licence Exempt Networks / Systems, private networks, or Exempt / Embedded Distribution Networks (EDNs). For the avoidance of doubt, these terms are used interchangeably in this decision document. Microgrids can be connected to or stand apart from the public network (the distribution and transmission networks). Operators of these networks must satisfy themselves that they can operate within the framework provided for by the [Electricity \(Class Exemptions from the Requirement for a Licence\) Order 2001](#) and appropriate provisions of the Electricity Act 1989, particularly Schedule 2ZA which sets out the duties of distribution exemption holders and Schedule 2ZB which covers the duties of supply exemption holders.

³ DCP328 is a DCUSA Change Proposal considering the use of system charging for private networks with competition in supply. The intent of the change is to ensure that use of system charging remains cost-reflective when competition in supply on a private network is in place. <https://www.dcusa.co.uk/change/use-of-system-charging-for-private-networks-with-competition-in-supply/>

However, the difference metering arrangements catered for by DCP328 do not apply to domestic customers or the metering arrangements developed for the BSC Sandbox trial. The proposed DCP328 solution would require bilateral and bespoke arrangements to be entered into in relation to those customers who choose a third party supplier, and in doing so reinforce the barriers to domestic customers choosing another supplier. Emergent's application to the DCUSA Sandbox seeks to extend the BSC trial methodology to the way that fixed Distribution Use of System (DUoS) charges are allocated between the parties involved in an EDN.

The relief requested

Emergent Energy has partnered with Northern Powergrid to trial a methodology which would involve the EDN Operator (EDNO) claiming a rebate from the DNO equivalent to the aggregate fixed charges levied by the DNO on the third party suppliers providing electricity to consumers who have opted-out of the on-site supply arrangement. The rebate methodology was initially proposed as a solution for DCP328; this trial will assess its viability.

Emergent proposes a change to the CDCM, which all DNOs are obligated to implement and comply with when applying charges. In particular, the change involves the addition of a new procedure for the calculation of aggregate metered rebate payments (under SLC 13A.4), and permission not to comply with the standard methodology for the presentation of charging statements (under SLC 14, Part B). Authority approval is required for a Relevant Party to not comply with its licence obligations. The new procedure for the calculation of aggregate metered rebate payments is provided at annex 1.

Recommendation of the DCUSA Panel

The DCUSA Panel welcomed the Sandbox application. It agreed that while the trial does not better facilitate the DCUSA General Objectives, it does better facilitate the DCUSA Charging Objectives namely:

- 2) "That compliance by each DNO Party with the Charging Methodologies facilitates competition in the generation and supply of electricity and will not restrict, distort, or prevent competition in the transmission or distribution of electricity or in the participation in the operation of an Interconnector".
- 4) That so far as is consistent with Clauses 3.2.1 to 3.2.3, the Charging Methodologies, so far as is reasonably practicable, properly take account of developments in each DNO Party's Distribution Business".

The Panel agreed that while the trial may initially operate at sites located in Northern Powergrid's area, other DNOs may participate so long as they formally notify ElectraLink in writing.

The Panel also considered whether IDNOs should be within the trial scope, given IDNOs operate under a relative price control framework where charges are linked to the level of the host DNO's charges. ElectraLink noted that IDNOs do not recover allowed revenue and thus the proposal for DNOs to treat a rebate as negative DUoS revenue, consistent with other rebates, is unlikely to be applicable to IDNOs. In the absence of feedback from industry that IDNOs should not be in scope, the Panel recommended their inclusion, but considered it unlikely that IDNOs would want to participate in the trial. Consequently, the

Panel recommended that Sandbox approval be granted on condition that Emergent Energy consider the potential ways in which the solution could be adapted to take account of IDNOs ahead of raising a formal Change Proposal.

Our decision

Based on the information provided by Emergent Energy and Northern Powergrid, the assessment undertaken by ElectraLink and the DCUSA Panel's recommendation, and having regard to our principal objective and statutory duties, the Authority has decided to grant the required temporary derogation and consent.

The reasons for our decision are:

- We consider that the proposed trial meets the eligibility and desirability criteria of the Energy Regulation Sandbox.
- We agree that the solution (if successful) could better facilitate DCUSA Charging Objectives 2 and 4.
- We consider the trial will provide an opportunity to test the viability of a solution initially proposed for DCP328 and discounted by the working group.
- Overall, we consider that the methodology to be trialled could provide for a more efficient and effective way of facilitating the switch of supplier for consumers located on EDNs, notably domestic consumers, particularly those in vulnerable situations.

Derogation and consent

The Authority hereby directs that:

- The Relevant Party is derogated from the SLC 13A.4 requirement that it all times implement and comply with the CDCM. For the purposes of this trial, when calculating a fixed charge rebate to the operator of the EDN, the Relevant Party will also comply with the 'Part 5 – Aggregated Metered Rebate Payments' additions to Schedule 16 of DCUSA, paragraphs 1A and 185-189 (as set-out in annex 1).

The Authority hereby confirms that:

- Consent is given to the Relevant Party that it must comply with the requirements of Part B of SLC 14 when preparing its Use of System Charging Statement, except in relation to the activities undertaken at the trial sites and provided for by this Sandbox award.

The derogation and consent may only be used to facilitate the trial of the methodology by which Emergent Energy as an operator of EDNs, claims a fixed charge rebate from the Relevant Party within whose area it is located, and only in respect of Emergent Energy's DCUSA Sandbox Application. The trial is limited to 2,000 customers in total (across all sites).

A DNO is a Relevant Party when it has agreed to take part in the trial, and has provided written confirmation of such to ElectraLink as the DCUSA Code Administrator. This confirmation will include the location of the trial site and the total number and type of customers at that location. Emergent Energy is required to keep each Relevant Party

apprised of the total number of customers participating (currently and planned) in the trial to ensure that the 2,000 trial threshold is not exceeded.

Before an IDNO can participate in the trial, Emergent Energy must provide additional analysis and information to ElectraLink and the Authority to confirm how the solution provided for in this derogation and consent would be deployed. If IDNO participation in the trial is deemed desirable and practicable the Authority will, where necessary, amend the terms of this derogation and consent. In any event, Emergent Energy will consider the ways in which the solution could be adapted to take account of IDNOs ahead of raising a formal Change Proposal.

The derogation and consent are effective for a maximum of two years, and up to an additional 2 years granted as an extension, from commencement of the trial, or from 20/05/23, whichever is first.

This letter constitutes notice for the purpose of section 49A of the Electricity Act 1989 of the Authority's reasons for its decision to grant the derogation by direction, and the consent; a copy has been made available on our website.

Reporting

Emergent Energy will provide monitoring reports on a quarterly basis from the date of this letter until the trial period ends, in a format to be agreed with Ofgem and ElectraLink.

To help Ofgem and ElectraLink assess the effectiveness and usefulness of the Sandbox service, Emergent Energy will respond to a digital survey (for completion after 6, 12, 18 and 24 months from the date of approval) seeking views on the quality, relevance and impact of the services provided.

Emergent Energy will also complete an evaluation (self-assessed or independent) of the impact of the trial, covering:

- a) The methodology's effectiveness in meeting the participants' and customers' needs, and delivering good consumer outcomes.
- b) The key insights gathered affecting the development / delivery of the innovation.
- c) Any insights garnered which are relevant to energy policy and regulation, residing within the spheres of responsibility of the DCUSA, other Codes, Ofgem, BEIS or another party.
- d) That information the Authority and / or ElectraLink can publish, that which can be used to inform policy development, and that which is commercially confidential, and to be protected.

The evaluation report will be submitted to Ofgem and ElectraLink 12 months after the trial period ends in a format to be agreed. In light of the pre-existing BSC Sandbox trial, the monitoring and evaluation reports may be combined with other required reports, if agreed by Ofgem, ElectraLink and Elexon. Please note that Ofgem may withdraw or amend the Sandbox support in the event these reporting obligations are not complied with.

Where the scheme is trialling a product, service or methodology similar to another

Sandbox supported scheme or where it is targeting customers with similar characteristics, Ofgem and / or ElectraLink may require that Emergent Energy participate in a parallel comparative evaluation. To aid these studies, Emergent Energy will ensure that permission is procured for Ofgem and / or ElectraLink (or an appointed third party) to engage with the Relevant Party and other trial participants.

If you have any questions about this decision, please contact Ofgem's Innovation Link team, at sandbox@ofgem.gov.uk, ensuring you copy in the DCUSA sandbox coordinator: dcusa@electralink.co.uk.

Yours sincerely



Kevin Baillie
Principal Policy Expert

Signed on behalf of the Authority and authorised for that purpose.

Direction issued by the Gas and Electricity Markets Authority under Standard Licence Condition (SLC) 13A.14 of the Electricity Distribution Licence

To: Relevant DNO(s), "the Party"

1. The Authority issues this Direction pursuant to SLC 13A.14 of the Electricity Distribution Licence. Capitalised terms used in this Direction which are not defined herein shall have the meaning given to them in the Electricity Distribution Licence.
2. The Relevant DNO(s) ("the Party") is the network licensee responsible for the Distribution System in which the relevant Exempt / Embedded Distribution Network (EDN) operated by Emergent Energy Ltd is located, and which has agreed to participate in this Sandbox trial.
3. SLC 13A.14 provides that the Authority may derogate a party (to such extent and subject to such conditions as the Authority may direct) of its obligation to implement and comply with the Common Distribution Charging Methodology (CDCM).
4. The considerations and rationale for the Authority's decision based on the assessment and recommendations of the DCUSA Panel are set out in the accompanying decision letter to Emergent Energy and the Party, updated on 11/11/24.
5. The Authority directs that, subject to the conditions set out below, the Party is relieved of the SLC 13A.4 requirement that it all times implements and complies with the CDCM, as far as is necessary to achieve the aims of the trial described in the sandbox application ("the **Derogation**"). For the purposes of this trial, when calculating a fixed charge rebate to the operator of the EDN, the Relevant Party will also comply with the 'Part 5 – Aggregated Metered Rebate Payments' additions to Schedule 16 of DCUSA, paragraphs 1A and 185-189 (as set-out in annex 1).

6. This Derogation shall take effect from the agreed commencement date (no later than 4 months from the date of this Direction) and shall remain in force until expiry at the end of the trial period (4 years after commencement), unless it is revoked earlier or varied in writing by the Authority.
7. A DNO is a Relevant Party when it has agreed to take part in the trial, and has provided written confirmation as such to ElectraLink as the DCUSA Code Administrator. This confirmation will include the location of the trial site and the total number and type of customers at that location.
8. The Derogation shall apply in respect of no more than 2,000 customers (where a customer is identifiable as a single component metering system forming part of the aggregation to be submitted in lieu of a boundary meter reading); before participating, the Relevant Party will confirm with Emergent Energy that the threshold will not be breached by virtue of the inclusion of additional consumers located on an EDN connected to the Relevant Party's Distribution System.

Updated on: 11/11/24

Yours sincerely



Kevin Baillie

Principal Policy Expert

Signed on behalf of the Authority and authorised for that purpose.

For the purpose of this trial, it is proposed that 'net' Distribution Use of System (DUoS) charges are achieved by means of a periodic rebate claimed by the Exempt Distribution Network Operator (EDNO) to the Relevant Party, calculated as if the following changes were 'live' in the DCUSA:

Insert new definitions in Clause 1

Aggregate Metered

means an arrangement defined in Emergent Energy's BSC Sandbox Trial for the purposes of Settlement, whereby the flows of electricity measured by metering equipment embedded within an Exempt Distribution Network are aggregated at the Entry Point or Exit Point through which electricity flows from or to that Exempt Distribution Network, to give the total value that would have been calculated using a difference arrangement.

Eligible Rebate Customers

means either (i) domestic customers or (ii) small non-domestic customers (i.e. those on Non-Domestic Aggregated tariffs), which are connected within a Exempt Distribution Network which is Aggregate Metered and have opted to not be supplied by the Exempt Supplier operating on the Exempt Distribution Network, such that data pertaining to those customers enter Settlement separately to the aggregate metered data at the boundary of the DNO Party and the Exempt Distribution Network.

Emergent Energy's BSC Sandbox Trial

means Emergent Energy's application to the Energy Regulation Sandbox from BSC rules about the metering of premises and the submission of metered data into Settlement. See also the associated Authority [BSC derogation](#) decision.

Difference Metering

means an arrangement defined in the BSC (BSCP514) for the purposes of Settlement, whereby the flows of electricity measured by metering equipment embedded within an Exempt Distribution Network are deducted from the flows of electricity measured by the metering equipment at the Entry Point or Exit Point by which electricity flows from or to that Exempt Distribution Network.

Fully Settled

means where every customer on an Exempt Distribution Network is to have or has a Supplier, its own MPAN and metering equipment and there is no metering equipment at the boundary between the Distribution System and the Exempt Distribution Network. The BSC refers to these circumstances as an 'Associated Distribution System'.

Exempt Distribution Network

means an electricity distribution system that is not owned or operated by a DNO / IDNO Party.

Shared Metering

Where meter readings recorded by Settlement metering equipment at the boundary between the Distribution System and the Exempt Distribution Network are apportioned between Suppliers based on

readings from non-Settlement meters on a Exempt Distribution Network in accordance with BSCP550.

Amend the following paragraphs in Schedule 16

- 1A. The CDCM is applicable to “Designated Properties”, as defined in Standard Condition 13A (Common Distribution Charging Methodology) of the DNO Party’s Distribution Licence and properties connected to Exempt Distribution Networks at Low Voltage (LV), Low Voltage substation (LVS) and High Voltage (HV).

Insert the following paragraphs in Schedule 16

Part 5 – Aggregate Metered Rebate Payments

185. This Part 5 sets out the process for providers of Exempt Distribution Networks to claim a fixed charge rebate (the “Rebate”) from the DNO Party relating to Eligible Rebate Customers, where the DNO Party has billed a party other than the Exempt Distribution Network Use of System Charges for the Eligible Rebate Customers.
186. Paragraph 185 is effective for the period of the DCUSA sandbox trial, and the Rebate is calculated in accordance with the following for each qualifying Exempt Distribution Network:

$$\text{Rebate Payment} = \sum_{L=LLFCs} [M_L * d * (T_L - S_L) / 100]$$

Where:

M_L = number of Eligible Rebate Customers MPANs on LLFC L

d = Number of billing days

T_L = Fixed charge tariff for LLFC L (in p/MPAN/day)

S_L = Supplier of Last Resort Fixed adder element of the Fixed Charge Tariff for LLFC L (in p/MPAN/day)

187. For a Rebate to be granted, the provider of each Exempt Distribution Network must contact the DNO Party and provide sufficient evidence that the customers for which it is seeking a Rebate meet the criteria of Eligible Rebate Customers, including as a minimum, address details for each customer. For the avoidance of doubt there is no Rebate available for Fully Settled, Difference Metering or Shared Metering arrangements associated with an Exempt Distribution Network.
188. Unless otherwise agreed with the DNO Party, the Rebate will be calculated on a quarterly basis (such period ending 31 March, 30 June, 30 September and 31 December in each year) and payments made shortly after the end of each quarter. The de minimis level of Rebate is £5 (and below that amount no payment will be made).
189. All such Rebates shall be treated as negative revenue from Use of System Charges.