

Modification proposal:	Distribution Code: DCRP/21/08 'Fast Track' Scheme – Replacement of the 'Integrated Microgeneration and Storage' process (DCRP/21/08)		
Decision:	The Authority ¹ has decided to approve ² this modification		
Target audience:	Distribution licensees, Distribution Code Review Panel, distribution network users and other interested parties		
Date of publication:	09 September 2022	Implementation date:	09 November 2022

Background

In December 2018 the Integrated Microgeneration process³ usually referred to as 'the fast-track procedure' was introduced into the Engineering Recommendation (EREC) G99. This allowed a quicker application process for the connection of new storage devices to domestic installations where predefined criteria could be met. The fast-track procedure requires DNOs to respond to an application that meets the criteria in ten working days, whereas the normal procedure can take up to 45 days.

The fast-track procedure can only apply to domestic installations where there is existing generation and where the additional equipment to be connection is storage. Users have found the current procedure to be limiting.

One of the criteria of the fast-track procedure is that the total aggregate capacity of the storage device does not exceed 16 Amps per phase and the total aggregated capacity of the

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 https://www.ofgem.gov.uk/sites/default/files/docs/2018/11/distribution_code_dcrp-mp018-09_d.pdf

existing generation does not exceed 16 Amps per phase. This applies to new and existing devices. Manufacturers are now producing storage devices, including vehicle to grid installations in a range of sizes for domestic installations. This now includes a 10kW device which has a rating of 43 Amps on a single-phase installation. It is now common for domestic Photo Voltaic installations to be 5kW and so these would not be eligible under the fast-track procedure.

The current fast-track procedure does not recognise the volumes of new generation and storage installations. This particularly applies to storage and Photo Voltaic installations. These installations will store the energy from the generation, and the storage will back off the demand to the distribution system when the generator is not generating

The modification proposal

Using the experience of the existing fast track procedure and assessing equipment for installations outside of the scope of the existing procedure, the DNOs are proposing a modification so that:

- a. The pre-existence of generation ≤ 16 Amps is no longer required.
- b. The overall installed capacity of generation can be as high as 60 Amps per phase.
- c. Individual generation devices up to 32 Amps per phase can be connected
- d. The export to the DNO's system must be constrained to be ≤ 32 Amps per phase.
- e. The system impedance at the connection point must be less than a DNO determined value (initially proposed to be 0.18Ω).

The new modified procedure would work in the same way as the existing fast track procedure. If the customer meets criteria (a) to (d) above the customer would submit an application for the installation. Within ten days the DNO would assess the application, principally against criterion (e) and the presence of existing generation locally. If the application passes this initial assessment, the DNO would immediately inform the customer and installation could start. If the application fails criterion (e) or is otherwise unsuccessful, it will transfer into the

normal application procedure, with a formal response provided within the next 35 working days.

The maximum value of 60 Amps has been selected for criterion (b) to align with the smallest common DNO cut-out fuse. This also considers the threshold for connecting electric vehicles and heat pumps without prior application.

The modification proposal retains the existing fast track procedure, where the criteria (a)-(d) are still met. It also formally incorporates an approach that has been adopted by DNOs whereby a storage, or generation device that has been limited on a temporary basis to <16 Amps can be connected under EREC G98 whilst that limit is still active.

The modification proposal provides a three-strand fast track procedure:

- SGI-1 is the designated small generation installation procedure and is the procedure for installing devices >16Amps which have a temporary limitation to 16 Amps.
- SGI-2 is the existing fast track procedure,
- SGI-3 would become the new fast track procedure applying the criteria (a) to (e) above

The modification proposal requires changes to the definitions in EREC G99. Specifically to revise the definition of Registered Capacity and Fully Type Tested and the creation of a new definition of Intrinsic Device Capacity.

The modification proposal also includes a series of editorial changes.

These include:

- Replacement of Integrated Microgeneration and Storage as a defined term with Small Generation Installation within the documents: EREC G98 Issue 1 Amendment 7 and EREC G99 Issue 1 Amendment 9.
- The creation of a new installation notification form.

- Change to the definition of Registered Capacity in EREC G98, to align with that in EREC G99.

Distribution Code Review Panel (DCRP)⁴ comments and licensee recommendation

The modification proposal was first presented to the DCRP in late 2021 and has been supported in its development and continued work by all members. At the DCRP meeting on 6th April 2022, the Final Modification Report was presented to the DCRP.

The Panel considered that the modification proposal would better facilitate the Distribution Code Objective (b) and therefore recommended its approval.

Our decision

We have considered the issues raised by the modification proposal and in the Final Report dated 4 May 2022. We have considered and taken into account the responses to the consultation on the modification proposal which are included in the Final Modification Report.⁵ We have concluded that:

- implementation of the modification proposal will better facilitate the achievement of the applicable objectives of the Distribution Code;⁶ and
- approving the modification is consistent with our principal objective and statutory duties.⁷

⁴ The DCRP is established in accordance with SLC 21 of the Electricity Distribution Licence.

⁵ Distribution Code proposals, final reports and representations can be viewed at: <http://www.dcode.org.uk/areas-of-work/> and <http://www.dcode.org.uk/consultations/>

⁶ As set out in Standard Condition SLC 21.4 of the Electricity Distribution Licence available at: <https://epr.ofgem.gov.uk//Content/Documents/Electricity%20Distribution%20Consolidated%20Standard%20Licence%20Conditions%20-%20Current%20Version.pdf>

⁷ The Authority's statutory duties are wider than matters which the Panel and licensees must take into consideration and are largely provided for in statute, principally in this case the Electricity Act 1989.

Reasons for our decision

We consider this modification proposal will better facilitate Distribution Code Objectives (a), (b) and (d), and has a neutral impact on the Distribution Code Objective (c).

(a) permit the development, maintenance, and operation of an efficient, co-ordinated, and economical system for the distribution of electricity

The modification proposal will enable a greater number of domestic customers to fast track their applications for new low carbon generation and storage solutions. The modification proposal has no impact on the DNO's who will be able to respond to each customer's individual application and assess the network effects of installations.

The timescales have not changed in any of the strands, this means that an initial 10-day assessment time scale that is currently in place, remains as does the 45-day period if the 10-day initial assessment criteria cannot be met. The modification enables a wider variety and scope of technical equipment to be connected.

Through discussion with the proposer post submission, we understand that: the change to criterion (c) to the limitation of 32 Amps on individual devices has been suggested by the DNOs, their internal testing (on EV charger units) has found that the harmonic emissions were somewhat lower than would have been expected. Hence the 32 Amps limit was proposed to ensure applications can be processed quickly, generally without significant and detailed analysis of the distribution network to understand the impact of installed generation on power flow and harmonics.

With regard to the suggested 0.18Ω threshold proposed in criterion (e): this is based upon DNO practical experience of where higher system impedances start to require more analysis, and also recognises that this impedance should be higher than the loop impedance in many practical network configurations based on small (e.g., 315kVA or 200kVA) transformers and reasonable runs of mains and service cables.

We are satisfied that the thresholds proposed within this modification are appropriate. We therefore consider that this modification proposal will have a positive impact on this code Objective. We note that the DCRP considered the modification proposal will have a neutral impact on this objective, however for the reasons outlined above, we consider that this modification proposal will have a positive impact on this code Objective.

(b) facilitate competition in the generation and supply of electricity

The proposed change allows customers to install a domestic low carbon solution for their property in a timely manner. Expanding the limits of the fast-track procedure facilitates the fast-track connection of commercially available equipment and devices, which encourages competition. It is also noted that the DNO's intend to publish a set of three small generation installation procedures to help the domestic customer.

Consistency has been applied to a common cut out size to smooth the installation process and incorporating the findings from the previous version of the fast-track procedure highlight the commitment from the DNO's to support the transition to a low carbon network and include storage options alongside generation. We therefore consider that this modification proposal will have a positive impact on this code Objective.

(d) promote efficiency in the implementation and administration of the Distribution Code.

As part of this modification proposal, a series of editorial changes are to be made to clarify definitions, align terminology and the creation of a new installation form. Terminology between Engineering Recommendation G98 Issue 1 and Engineering Recommendation G99 Issue 1 Amendment 7 have been aligned for clarity. This is a positive step in maintaining the code and ensures a succinct document, we therefore consider this modification proposal will have a positive impact on this code Objective.

We note that the DCRP considered the modification proposal will have a neutral impact on this objective, however for the reasons outlined above, we consider that this modification proposal will have a positive impact on this code Objective.

Decision notice

In accordance with SLC 21.11 of the Electricity Distribution Licence, the Authority hereby directs that the modification to the Distribution Code set out in the Final Modification Report to the Authority of 4 May 2022 be made.

Martin Queen

Head of Engineering Systems & Policy – Analysis & Assurance

Signed on behalf of the Authority and authorised for that purpose