

ACCELERATED LOSS OF MAINS CHANGE PROGRAMME (ALoMCP)

*** Note – this scheme, and the technical requirements behind it, do not apply to domestic scale generation – specifically it does not apply to any generation connected under the auspices of EREC G83 ***

The electricity network licensees, ie: National Grid Electricity System Operator Limited (NGESO), the Distribution Network Operators (DNO) and Independent Distribution Network Operators (IDNO), have set up a service for generation owners to change their protection settings (the “programme”). The information in this document sets out the basis on which the owner of an embedded generating facility may apply for participation in the programme. If, as an owner of such a generating facility, you submit an application for participation in the programme you will be doing so on the basis set out in this document. If your application is accepted, you will become contractually bound.

Neither the publication of this information nor any of the content presented herein should be regarded as a commitment or representation on the part of your DNO/IDNO or NGESO to enter into a contractual arrangement.

The participating DNOs and IDNOs are:

Electricity North West
GTC
Northern Powergrid
Scottish and Southern Electricity Networks
SP Energy Networks
UK Power Networks
Western Power Distribution

All the remaining IDNOs are actively engaged in the programme. Generators connected to any IDNO should register and will be dealt with in the normal manner.

Generator Repayment for Resetting of Interface Protection Settings

It is a requirement of the Distribution Code (and its subordinate document EREC G59) that all owners of generation installed prior to February 2018¹ comply with new setting requirements for all interface protection in accordance with EREC G59 (which can be downloaded from [here](#).) Owners of generation have a requirement to comply with the modified interface protection requirements in the revised EREC G59 and have until 31 August 2022 to do so. After that date owners who have not made the change may be the subject of an enforcement programme.

Note that the new requirements do not apply to smaller generation equipment that has been type-tested and which does not have specific rate of change of frequency (RoCoF), or vector shift, loss of mains (LoM) interface protection functions. The new requirements do apply to any interface protection or control algorithms included in the control systems of generating units, converters, inverters etc.

Eligibility for the Programme is explained diagrammatically [here](#)².

To incentivise the early adoption of these changes the network licensees have set up this Portal to allow generation owners to register their intention to make settings changes and to facilitate the development of a prioritised delivery programme. It is intended that selected generation owners who make the settings changes in advance of the deadline will be eligible for payment as described in the rest of these pages. Any such payment will be made by the DNO/IDNO whose network they are

¹ Or prior to 01 July 2018 if the site only has type tested inverters and no separate LoM relays.

² This diagram applies to all applications made on or after 01 February 2020

connected to. The payment is related to the degree of work involved in making the changes as described below.

The funding is not limitless and there may be constraints on the numbers of applications that your DNO or IDNO is able to process in any given period. Applying as early as you can will increase the chance that you will be accepted for the programme.

Table of payments:

	Payment (per protection device) per site*		
	The first protection device	Up to 5 additional protection devices, per device	Remaining protection devices
Protection relay replacement – synchronous and DFIG generation	£4 000	£4 000	£4 000
Protection relay replacement – non-synchronous generation	£1 500	£500	£0
Protection function/relay deactivation and/or protection settings change – all generation	£1 500	£500	£0
Sample Site Visit (post work completion)	£500	£0	£0

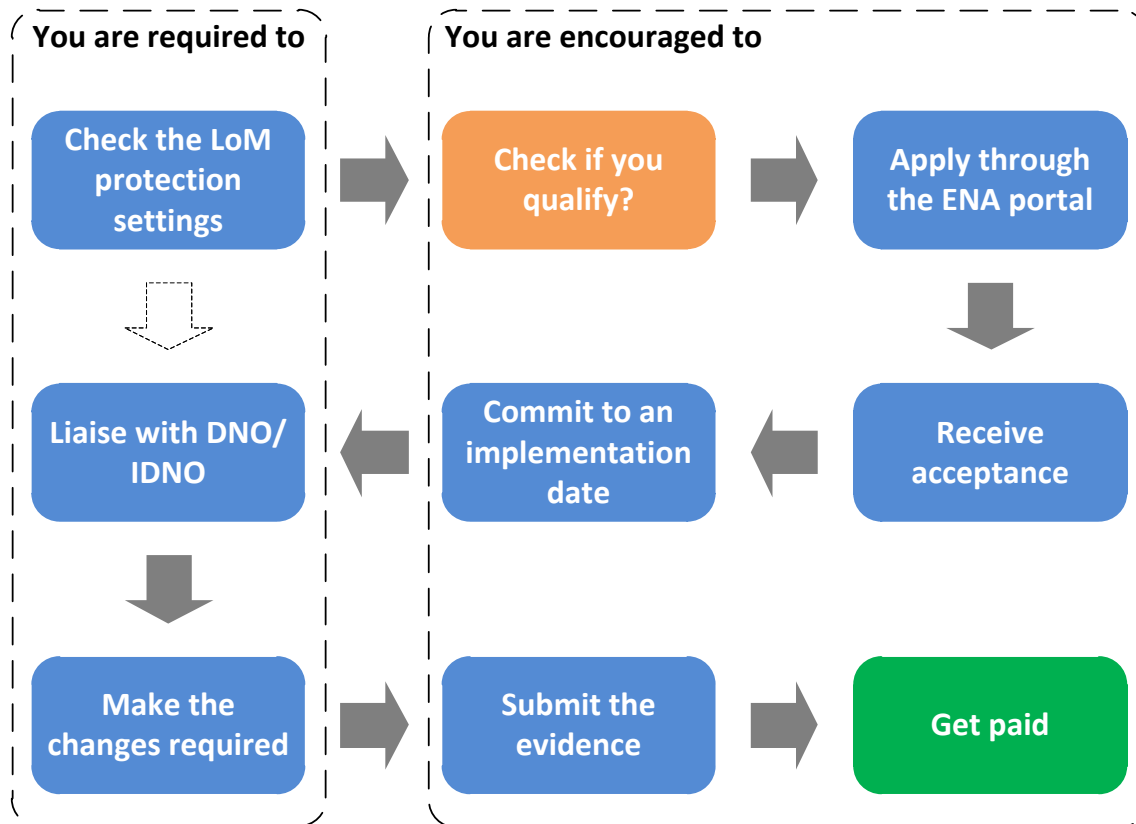
*plus VAT where applicable

The sums in the table above will be reduced depending on completion date as follows:

- Sites completing the changes after 24 March 2022 but on or before 23 June 2022 will be paid 80% of the values in Table 2.
- Sites completing the changes after 23 June 2022 but on or before 31 August 2022 will be paid 70% of the values in Table 2.

Application Process

The overall process is summarized below:



A more detailed timeline for the application and payment process can be found in the Payment Process Specification [here](#).

In making the application you confirm that you will agree to be bound to the Contractual Terms for participation in the programme. The Contractual Terms can be found [here](#).

When applying to be considered for participation in the programme you will need to identify what works are required. These will conform to the table of payments above. Payments will not exceed the value of your application, even if additional necessary work is identified at a later date.

In order for you to make an assessment of the works required at your site you may, in the first instance, refer to your operation and maintenance contractors or original installer. In the second instance you may wish to contact one of the contractors who have expressed an interest in carrying out the works, and are listed on the ENA website [here](#). There may be costs you incur associated with identifying the works required. This payment scheme does not provide for reimbursement of those costs.

If your site comprises more than one generation type (eg solar and wind on the same site) you can enter “multiple” as the generation type and provide additional detail in free-entry note area.

Note that some generation types, particularly but not exclusively, converters and inverters will include LoM functionality in the control equipment for the converter or inverter. These settings must be made to comply with the new requirements as well as any relay protection that might be on the site. In some cases, a site might comprise dozens or even hundreds of converters/inverters. All must be modified if necessary to conform to the new requirements.

Please also note that this programme does not cover any replacement to a converter or inverter itself as the work will need to be done through changing the logic of their control system (ie either resetting them or disabling the LoM function). If resetting the logic etc of the control system is not possible, the implications will need to be discussed with the DNO.

Owners of synchronous generation need to be aware of the risks of out of synchronism energizations. This risk will generally be reduced by replacing vector shift with RoCoF protection. However, assessment of this risk is the responsibility of the generation owner.

To be eligible to participate you must meet the following criteria:

- a) Your generation was connected and commissioned onto the network before 01 February 2018³;
- b) Your generation operates in long-term parallel mode with the distribution network;
- c) Your generation interface protection settings are not already those required by EREC G59, and you can provide evidence of the existing settings;
- d) Your generation is connected to the network of the DNO or IDNO that you stated it to be;
- e) Your agreement that you will apply, as required, the following changes and maintain interface protection settings compliant with the requirements of G59, namely:
 - Where RoCoF protection is used for LoM protection the applied settings must be 1.0Hzs⁻¹, with a definite time delay of 500 ms.
 - Any vector shift LoM protection is removed or disabled.
 - Where the requisite RoCoF setting cannot be achieved without additional investment, remove LoM protection from all generation except for synchronous and doubly-fed induction (DFIG) units. For synchronous and DFIG types of generation a new relay should be installed compliant with the requisite RoCoF settings.

Where practical (ie: where the existing protection is capable) a single stage overfrequency setting of 52.0 Hz, 500 ms definite time delay should be applied. If this setting is not possible, then the existing setting may remain.

Further details of the principles supporting the payment can be found in NGENSO's Procurement Methodology document [here](#).

Eligible generation owners will be assessed for participation on the basis of criteria determined by NGENSO driven by the additional costs of operating the GB electricity system until the interface protection settings are changed.

The route to participation in the programme and to payment for the changes is via this Portal.

Please enter the details of your generation equipment into this Portal. If you intend to submit multiple separate generating sites, please read the guidance [here](#). You will be asked to indicate your earliest expected completion date after the end of the application window in which you are submitting your application. The information submitted will be reviewed by the DNO/IDNO to whose system your site is connected. Technical details of the site, but not ownership or other company or personal data, will then be shared with NGENSO for the purpose of assessment.

³ Or prior to 01 July 2018 if the site only has type tested inverters and no separate LoM relays.

Selection process

NGESO will assess applications based on a number of criteria (published on the NGESO website [here](#)). The funding will be arranged in quarterly application windows, and following submission of your data, if your site is selected in the current window you will be notified by email. If your site is not selected for the next quarter its details will automatically be submitted for future application windows.

Notification Process

If you are notified that your application has been accepted and your site has been selected for payment (ie: having been successful in NGESO's evaluation), you will be asked to return to this Portal to provide a definite date by which the setting changes will be made. This must be earlier than the cut-off date (by which you must complete the changes) that will have been clearly set out in the email notifying you of your successful application for funding, but also at least 20 days later than the current date (to allow your DNO/IDNO to plan any witnessing visits etc). Entering this date will commence the contract with the DNO/IDNO to undertake the work as agreed, on the basis of the Contractual Terms. The Contractual Terms can be found [here](#). A copy of the Contractual Terms will also be sent to you when you commit to the completion date and accept the Contractual Terms. The DNO/IDNO will contact you to confirm any final details including your requirement to submit evidence of completion of the works and, where required, witnessing or post-event site visits.

If you are not selected by NGESO in the current application window, you will not receive any automatic notification. However, you can return to the portal at any time to check the status of your application. If NGESO have not accepted your offer it will appear on the portal with the status "NGESO analysing data". Your application will automatically be included in the assessment for the following application window.

Completion of Works

A guidance note with more detail on the actions necessary by site owners to complete their changes is included [here](#).

To help ensure the process runs smoothly you should not make any changes until you have been contacted by the DNO/IDNO to confirm whether they will need to witness any change. Having been successful in NGESO's evaluation, to be entitled to payment you must submit evidence of the changes you have made to the DNO/IDNO to whose network your generation site is connected using the pro-forma that can be found [here](#). It is likely that the DNO/IDNO will contact you about the changes, and the DNO/IDNO might require that they witness some or all of the protection changes that you undertake. If you are asked to have changes witnessed, you must comply to remain eligible for payment. DNOs/IDNOs will not charge for witnessing work associated with this programme, providing the work is completed in one visit and during normal working hours.

The programme will also be running a sampling regime for quality assurance and your site(s) might be selected to demonstrate that the changes have been made successfully etc. This is independent of any witnessing of the work that the DNO/IDNO requires. If your site is selected to be sampled, you will need to arrange to demonstrate compliance with the new requirements on site to a representative of the programme. Such visits will include a further payment to you as detailed in the table above. Note that there may be an overall independent assurance programme which may also require further demonstration of compliance, but any requirements for that programme will be communicated to you separately.

Sites already modified

If you made the changes to your site's protection settings prior to the launch of this programme you may still be eligible for a payment. You should complete your application for participation in the programme as above. If you are selected you should enter the date the work was done. The DNO/IDNO will contact you if your application for participation is accepted and discuss how the evidence (using the proforma described above) can be presented, and how payment will be made.

Payment

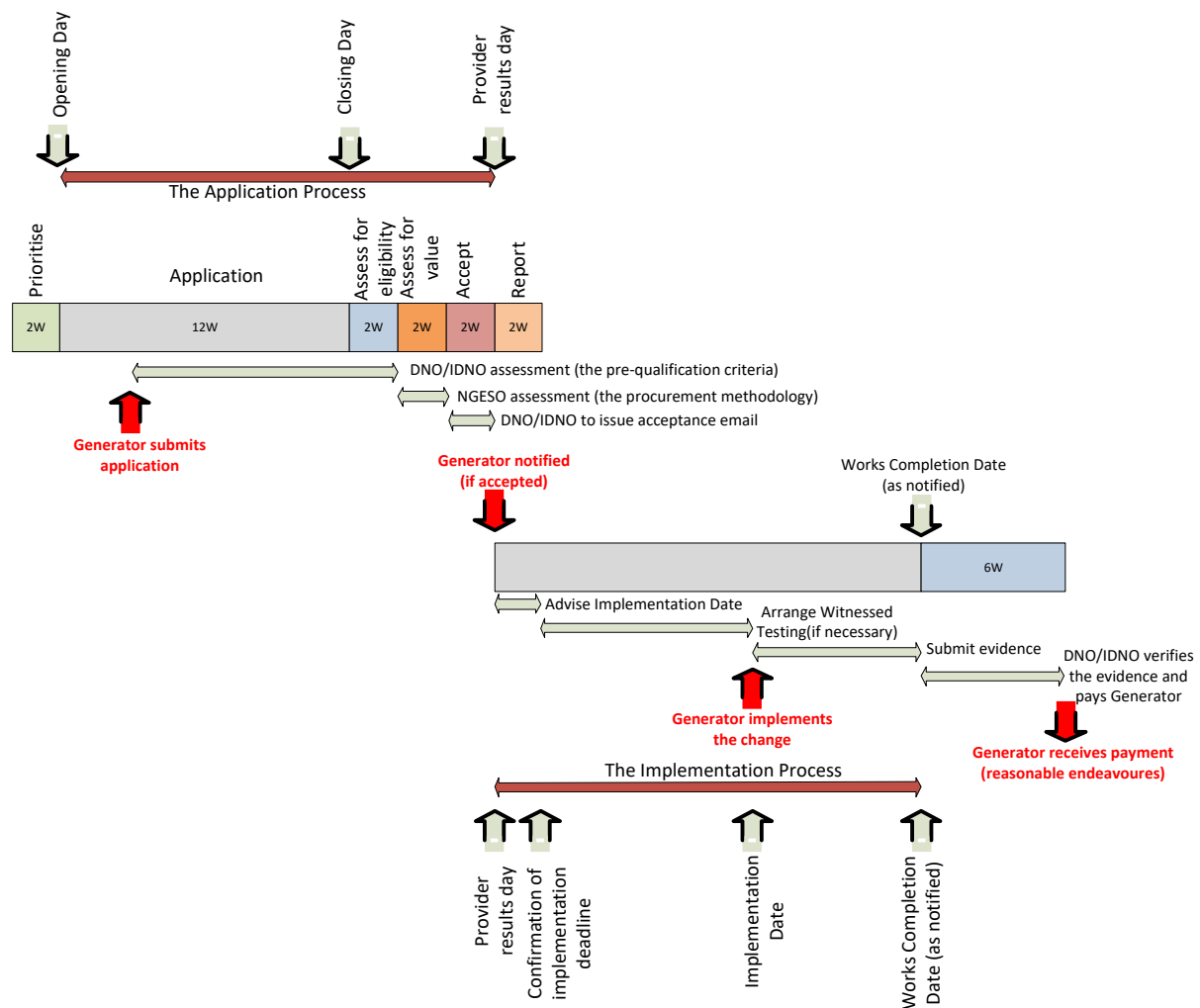
Any payment due will follow completion of the changes, subject to the evidence you submit to the DNO/IDNO using the prescribed form, any witnessing of your changes being satisfactory, the completion date being within the cut-off date for your site, and be subject to the Contractual Terms. The evidence pro-forma is available [here](#). DNOs/IDNOs will aim to pay generation owners within six weeks of successful completion and submission of the necessary information.

Of course, you can contact your DNO/IDNO about any details of this programme, and/or the implications for your site at any time. The contact details for each DNO/IDNO are [here](#).

The activities of network licensees are regulated by the [Gas and Electricity Markets Authority](#) (Ofgem).

More general background to this programme and the need for it can be found [here](#).

Detailed timeline for application and payment:



Version	Date	Update
1.98	08/12/20	Footnote 1 added on p1
1.99	21/12/20	Updated hyperlinks to Procurement Methodology and Payment Process Specification.
2.02	30/06/21	Minor housekeeping mods; clarification that the Programme applies to all electronic converters, not just inverters.