



Quality Assurance for Combined Heat and Power

GUIDANCE NOTE 60

Evidence Requirements and Administrative Arrangements for the Temporary COVID-19 Easement

**Issue 1
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Prepared by CHPQA on behalf of the Department for Business, Energy and Industrial Strategy.

GUIDANCE NOTE 60

Scope

GN 60.1 This CHPQA Guidance Note describes the process and evidence requirements whereby a CHP Scheme's Responsible Person may apply for the Temporary COVID-19 Easement (The Easement).

The Easement is intended to support operational CHP Schemes that, due to the COVID-19 pandemic and associated regional and national lockdowns, have been forced to operate such that performance during 2020 has been compromised relative to normal operation.

The Easement will only apply to the 2021 Certification and only be granted for those operational Schemes where, compared with 2020 certification:

- The Quality Index has fallen, except where it remains greater or equal to the applicable QI threshold; and/or
- The Power Efficiency has fallen, except where it remains greater or equal to the applicable Power Efficiency threshold; and
- Sufficient evidence is provided to demonstrate that the decline in performance is a direct consequence of COVID-19 restrictions.

Most Schemes will have been certified in 2020 on an F4 Certificate based on 2019 operational data. Where operators of such Schemes apply for and are granted the Easement, 2021 certification will be on the basis of 2019, rather than 2020 operational data.

Operators of Schemes that became operational during 2020 and have at least one month's operational data from 2020 can also apply for the Easement. Where the Easement is granted, such Schemes will be certified in 2021 on the basis of their latest F3 design data, rather than 2020 operational data.

For Schemes under an F3 Certificate and not yet operational in 2020 then the Temporary COVID-19 Easement is not applicable, and such schemes will be recertified, as appropriate, in 2021 on the basis of their latest F3 design data.

Glossary

GN 60.2 The following terms are used in this Guidance Note. Readers may also find it helpful to refer to the CHPQA Standard for further definitions of CHPQA terminology. The Standard is downloadable from:

<https://www.gov.uk/government/publications/chpqa-standard>

Administrator is that body contracted by the government to have responsibility for the management of the CHPQA programme.

Annual Operation (AO) represents the calendar year when the Scheme is in operation; the period from 1 January to 31 December inclusive. For new Schemes, in the first year of operation, this should be from the date of commencing to supply heat to user(s) to 31 December of that year.

For the purposes of the Temporary COVID-19 Easement and certification in 2021 only:

- AO means the calendar year 2019 for those Schemes operational during 2019 and approved to receive the Temporary COVID-19 Easement. Such Schemes will therefore be certified in 2021 on the basis of 2019 operational data and the resulting Good Quality CHP criteria.
- Schemes that became operational during 2020 and are approved to receive the Temporary COVID-19 Easement will be certified on the basis of their most recent F3 design data.
- For all other schemes, AO means the calendar year 2020. Such Schemes will therefore be certified in 2021 on the basis of 2020 operational data and the resulting Good Quality CHP criteria.

Audit is any activity carried out by the Administrator to confirm compliance with this Standard. It typically includes a site-based evaluation of the operation of a CHP Scheme to confirm that the Self-Assessment is founded on a correct interpretation of the CHPQA Standard and that the data and calculations submitted are corroborated by site data records.

Certification is the issuing by the Administrator of a certificate that a Scheme meets the criteria for Good Quality for all or part of its energy inputs, outputs and capacity, based on Validation of Self-Assessment submitted by a Responsible Person.

CHP (Combined Heat and Power) is defined as the simultaneous generation of heat and power in a single process. The power output is usually electricity but may include mechanical power. Heat outputs can include steam, hot water or hot air for process heating, space heating or absorption chilling.

CHPQA programme is a management and administrative process under which Registration and Certification of CHP Schemes is being taken forward. It proceeds through the application for Registration and Self-Assessment of CHP Schemes by a Responsible Person to Certification in accordance with the criteria for Good Quality CHP. The Administrator will carry out Registration, Validation, Certification and Audit on behalf of the Secretary of State for Business, Energy and Industrial Strategy.

CHP Scheme (Scheme) means all the equipment, operating systems and monitoring systems for the total system defined to be within the Scheme boundary, being that to which CHPQA applies. This can be at any stage of development from design to actual operation. It will include one or more prime movers (e.g. gas turbine or reciprocating engine) driving electrical generator(s) or mechanical loads and some means of recovering waste heat, which would otherwise be released to the environment, for a useful purpose.

CHP Qualifying Heat Output (CHP_{QHO}) is the registered amount of useful heat supplied annually from a CHP Scheme (MWh_{th}). It is heat output that is demonstrably utilised to displace heat that would otherwise be supplied from other sources.

Note: CHP_{QHO} excludes any heat rejected to the environment without any beneficial use. Examples include, *inter alia*, heat lost from chimneys or exhausts and heat rejected in equipment such as condensers and radiators.

CHP Qualifying Power Output (CHP_{QPO}) is the registered annual power generation from a CHP Scheme (MWh_e) that either fully or partially qualifies as Good Quality CHP. For Schemes that meet the relevant Threshold QI Criterion for Good Quality CHP, CHP_{QPO} equals the total power output (CHP_{TPO}). For a Scheme that does not achieve the Threshold QI Criterion for Good Quality CHP, CHP_{QPO} is that portion of the annual power output from a Scheme that would have achieved the Threshold QI Criterion, based on the qualifying heat supplied (CHP_{QHO})

CHP Total Power Output (CHP_{TPO}) is the total annual power generation from a CHP Scheme (MWh_e), as measured at the generator terminals, plus the electrical equivalent of any qualifying mechanical power supplied by the Scheme.

F3 Certificate is a certificate granted by CHPQA based on the technical design data of a proposed new CHP Scheme (which is at the final design stages or under construction) or based on technical design data of an upgrade of the prime mover of an existing CHP Scheme. The F3 Certificate is based on design data provided to CHPQA in an F3 (or F3(s)) Form.

F4 Certificate is a certificate granted by CHPQA for Schemes that have any operational data and for new Schemes in the 1st year of operation have at least one month of operational data and reflects the actual performance of the Scheme. The purpose of the F4 certification is to ascertain the portions of inputs, outputs and capacity that qualify as Good Quality CHP. The F4 Certificate is based on operational data provided to CHPQA in an F4 (or F4(s)) Form.

Operating or operational in respect of a CHP Scheme means that the Scheme is generating power and supplying useful heat to one or more heat users for at least one month during the first year of operation.

Power Efficiency (η_{power}) is one of two key parameters for assessing a CHP Scheme (the other being the Quality Index) and it is the total annual power output (CHP_{TPO}) divided by the total annual fuel input (CHP_{TFI}). Where a Scheme includes mechanical power output, this shall be converted to an equivalent electrical power output as described in Section 5.10 of the CHPQA Standard and included in the calculation of Power Efficiency.

Quality Index (QI) is one of two key parameters for assessing a Scheme (the other being Power Efficiency). QI is an indicator of the energy efficiency and environmental performance of a Scheme, relative to the generation of the same amounts of heat and power by separate, alternative means.

Responsible Person (RP) means that person registered with the Administrator as responsible for the operation of a Scheme.

Self-Assessment is the evaluation by the Responsible Person of the quality of a CHP Scheme, including calculation of key parameters, using the appropriate documentation for Self-Assessment as issued by the Administrator. The forms that come with the documentation for Self-Assessment shall be used to define the CHP Scheme and to record the Self-Assessment data.

Temporary COVID-19 Easement (The Easement) is the temporary amendment to the CHPQA certification process that allows a Responsible Person to apply to the CHPQA Administrator for the 2021 certification of their CHP Scheme to be based on 2019 operational data (or F3 design data for Schemes that became operational during 2020) to determine the Quality Index (QI), power efficiency (η_{power}) and CHP_{QPO}/CHP_{TPO} ratio rather than 2020 operational data. For the Easement to be granted the Responsible Person must provide sufficient evidence that the COVID-19 pandemic has affected the operation of their CHP Scheme such that certification on the basis of its 2020 operational performance data would lead to a reduction in associated benefits compared with its 2020 certification. The Easement is only available for 2021 certification.

Threshold Criteria for Good Quality CHP

- **For Fuel Inputs under Annual and Initial Operation:**
A Scheme that qualifies as Good Quality CHP for its entire annual energy inputs is one where the Power Efficiency equals or exceeds 20%.
- **For Power Outputs under Annual Operation:**
A Scheme that qualifies as Good Quality CHP for its entire annual energy outputs is one where the Quality Index equals or exceeds 100. Normally, the **Threshold QI Criterion** is based on Annual Operation, but it can be based on other periods, for example on the Heating Season in the case of RCH Schemes.
- **For Power Outputs under Initial Operation:**
A Scheme that qualifies as Good Quality CHP for its entire annual energy outputs is one where the Quality Index equals or exceeds 95. Normally, the Threshold QI Criterion is based on Annual Operation, but it can be based on other periods, for example on the Heating Season in the case of RCH Schemes.
- **For Power Generation Capacity under Annual Operation:**
The Threshold Criterion for existing Good Quality CHP Capacity is that the CHP Scheme achieves a QI of at least 100 at its Maximum Heat Output under Normal Operating Conditions.
- **For Proposed New Power Generation Capacity:**
Threshold Criteria for proposed new Good Quality CHP Scheme Capacity, at design, specification, tendering and approvals stages, are
QI \geq 105 (at Maxheat) and Power Efficiency \geq 20%, both under Annual Operation.

Validation is the confirmation by the Administrator of the assessment method, assumptions made, and consistency of the information provided in a Self-Assessment. Validation, unlike Audit, is the routine confirmation that a Self-Assessment has been carried out properly. It includes verification that the Scheme definition and calculations are correctly applied.

Process

2021 Self-Assessment

GN 60.3 Irrespective of whether there is an intention to apply for the Easement, for each operational Scheme, the RP must undertake Self-Assessment using the Scheme's actual operational data from 1 January – 31 December 2020. This is achieved by completing and submitting the F4 or F4(s) form via the CHPQA portal in the normal way. This includes those Schemes that previously had F3 Certification but became operational during 2020 and have at least one month of 2020 operational data.

For Schemes under an F3 Certificate and not yet operational in 2020 then the Temporary COVID-19 Easement is not applicable, and such schemes will be recertified, as appropriate, in 2021 on the basis of their latest F3 design data.

Application for the Easement

GN 60.4 There is a tick box on the F4/F4(s) for the RP to indicate whether performance has been affected by COVID-19. However, please note that any indication given via the F4 or F4(s) as to whether a CHP Scheme's performance has been affected by COVID-19 does not restrict the RP's decision to apply for the Easement. It is purely to provide the CHPQA Administrator with an indication of the number of applications that are likely to be received.

In all cases, if the RP does not wish to apply for the Easement, then no further action is needed beyond completion of the Self-Assessment as described under GN60.3.

RPs wishing to apply for the Easement for Schemes that are eligible based on the scope outlined in GN 60.1, should, following completion of the Self-Assessment based on 2020 performance data, open the Easement application form, which will be found on the portal in the RP's dashboard.

Via the Easement application form the RP should:

- Confirm that they are applying for the Easement;
- Upload their supporting evidence documents (see GN 60.6); and
- Submit.

Timing

GN 60.5 The online system will be available for submissions of the required evidence from **1st April 2021**.

The Easement application form with supporting evidence must be submitted via the CHPQA portal by **close of Friday 28th May 2021**.

Evidence will be assessed and *COVID-19 Easement Supplementary information* will be approved as appropriate and provided by the CHPQA Administrator once the appropriate legislative amendments have been agreed.

Evidence Requirements

GN 60.6 The principle of the Easement is to make allowance for reductions in the benefits available to operators of CHPQA certified CHP Schemes arising solely from the impacts of the COVID-19 pandemic and which have been outside of the control of the operators.

Depending on the type of CHP Scheme, reductions in benefits will only arise if one or both of the following are true compared with 2020 certification:

- The Quality Index has fallen, except where it remains greater or equal to the applicable QI threshold.
- The Power Efficiency has fallen, except where it remains greater or equal to the applicable Power Efficiency threshold.

The evidence supplied in support of an application for the Easement must demonstrate that the impacts were as a result of COVID-19 rather than other factors. Evidence should therefore include:

1. A full qualitative description of the restrictions due to COVID-19 on the site's relevant operations during 2020, which affected the operation of the CHP Scheme. This should describe the nature of the restrictions and why they arose. This might, inter alia, include:
 - a. Reduced periods of CHP operation as a consequence of lockdowns, reduced site production or operation arising from market disruption, staff illness, or restrictions on CHP fuel supply to site.
 - b. Increased proportion of operation at reduced load factors from reduced site production or operation.
 - c. Changes in relative heat demands on the CHP plant from loss or reduction of heat requirements of energy customers, external or internal.
2. Supporting data and quantitative analysis to demonstrate the relationship between cause and effect, i.e. between the relevant restrictions and the impact on CHP Scheme operation.

For example, where there have been losses or reductions of heat loads, these should be quantified, plotted against time and correlated against the timing and magnitude of specific COVID-19 impacts such as reductions in production or the closing of a particular heat intensive facility.

The types and frequency of the data used must be suitable to unambiguously demonstrate the relationship(s) between the actual CHP Scheme operation and relevant restrictions. In most cases it is envisaged that there will be a differential impact on power and heat. If for example a CHP Scheme normally operates for 8,000 hours pa at a particular heat and power output, then a simple reduction in operating hours to 4,000 hours pa will have no impact on its CHPQA performance, all else being equal.

3. Analysis to determine the values of QI, Power Efficiency and the $\text{CHP}_{\text{QPO}}/\text{CHP}_{\text{TPO}}$ ratio that the Responsible Person believes would have been

met if the COVID-19 restrictions had not occurred. This should describe and draw upon information on the expected operation of the site during 2020 in the absence of COVID-19.

4. Other supporting evidence as appropriate to demonstrate that relevant changes in site circumstances and operation (and therefore CHP operation) were directly linked to COVID-19. Such evidence may include internal documents, e-mails, etc. that demonstrate the rationale for relevant management and operational decisions.
5. Plans to ensure that during 2021 the CHP Scheme's QI and Power Efficiency return to close to the levels normally achieved.

Supporting evidence must be provided along with the Easement application form by close of **Friday 28th May 2021**.

Assessment of COVID-19 Easement Applications

GN 60.7 The CHPQA Administrator will undertake validation of Self-Assessments based on 2020 operational data in the usual manner. This will give rise to the following:

- *CHPQA F4 Certificate*
- *GN 44 Certificate for Renewable Obligation Certificates (ROCs) or Contracts for Difference (CfD) (if requested)*

The Administrator will also assess the evidence provided for Easement applications (see GN 60.6). The CHPQA Administrator may contact RPs to request clarification and/or further information/evidence as considered appropriate.

Where an application for the Easement is granted, the Administrator will issue an additional document for those Schemes with 2019 operational data:

- *COVID-19 Easement Supplementary information*

For Schemes without 2019 operational data that commenced operation in 2020:

- *An F3 Certificate based on the latest design data, which will supplant the F4 Certificate already generated.*

The COVID-19 Easement Supplementary information will provide details of the Scheme and the following parameters from the 2020 certification; i.e. derived from 2019 operational data:

- Quality Index
- Power Efficiency
- The CHP_{QPO}/CHP_{TPO} ratio

and if a GN 44 Certificate has been issued:

- The GN 44 CHP_{QPO}/CHP_{TPO} ratio (for ROCs) or GN 44 CHP Qualifying Multiplier (for CfDs).

The Supplementary information will therefore be relatively simple (see Appendix 1).

Where an Easement application is rejected, certification will be on the basis of the 2020 operational data. In such cases the Scheme operator can appeal the decision via the existing CHPQA Appeals Process (see Guidance Note 0).

Audit

GN 60.8 Applications for the Easement and all supporting evidence will be subject to the same CHPQA audit provisions as set out in the CHPQA Standard Issue 8.

Use of the COVID-19 Easement Supplementary information

GN 60.9 The purpose of the COVID-19 Easement Supplementary information is to provide CHP Scheme operators who have had their applications for the Easement granted with authorised values that represent the data used for the Easement.

The COVID-19 Easement Supplementary information should be used in conjunction with the F4 certificate for:

- Main Rates of CCL reconciliation in 2021 using Climate Change Levy return form (CCL100 or CCL200x)
- CPS Rates of CCL reconciliation in 2021 using Climate Change Levy return form (CCL100 or CCL200x)

For ROCs and CfDs, operators should provide a copy of the COVID-19 Easement Supplementary information to respectively Ofgem and the Low Carbon Contracts Company (LCCC).

For the Renewable Heat Incentive (RHI), operators should provide a copy of the COVID-19 Easement Supplementary information to Ofgem.

Appendix 1

COVID-19 Easement Supplementary information – illustrative example

COVID-19 Easement Supplementary Information to CHPQA certificate number issued on.....

Scheme: **WORKED EXAMPLE**
 <STREET>
 <TOWN>
 <COUNTY>

 <POSTCODE>

CHPQA Scheme Reference No: **1234A**

This is to confirm that the Self-Assessment of the above CHP Scheme undertaken by
 <RESPONSIBLE PERSON>

of Scheme performance during the calendar year: **2020** has been Validated under the Combined Heat and Power Quality Assurance programme for the purpose of the Temporary COVID-19 Easement. This information is based on 2019 operational data:

1. The Total Power Capacity of this Scheme is:	XX	MWe
and the Qualifying Power Capacity is:	XX	MWe
2. The threshold Power Efficiency criterion for this Scheme is:	20	%
and the Power Efficiency (based on 2019 performance) of this Scheme is:	23.45	%
3. and the Heat Efficiency (based on 2019 performance) of this Scheme is:	36.13	%
4. The threshold Quality Index criterion for Annual Operation is:	100	
and the Quality Index (based on 2019 performance) of this Scheme is:	73.97	
5. CHP_{QPO}/CHP_{TPO} (based on 2019 performance)	0.9	
6. The Percentage of Fuel Input Referable to Electricity Generation (based on 2019 performance) is:	68.8	%
7. For ROCs/CFD eligibility, CHP_{QPO}/CHP_{TPO} (based on 2019 performance)	0.87	

This information is a statement of Scheme performance over the period 01/01/2019 to 31/12/2019 and is valid until 31/12/2021.

Approved by the CHPQA Administrator on behalf of DECC. Date: 27 JUNE 2021

