

Detailed guide: Combined Heat and Power Quality Assurance Programme

Updated: CHPQA workshop and seminar 2018 announced

What is CHPQA

The CHP Quality Assurance programme (CHPQA) is a government initiative providing a practical, determinate method for assessing all types and sizes of Combined Heat and Power (CHP) schemes throughout the UK. CHP, the simultaneous generation of heat and power in a single process, provides one of the most cost-effective approaches for making carbon savings and plays a crucial role in the UK Climate Change programme.

CHPQA aims to monitor, assess and improve the quality of UK Combined Heat and Power.

While participation in the CHPQA programme is voluntary, the government is committed to increasing the UK's CHP capacity because of the considerable environmental, economic and social benefits it can bring together with its contribution to security of supply. Successful CHPQA certification grants eligibility to a range of benefits, including Renewable Obligation Certificates, Renewable Heat Incentive, Carbon Price Floor (heat) relief, Climate Change Levy exemption (in respect of electricity directly supplied), Enhanced Capital Allowances and preferential Business Rates.

CHPQA, by assessing CHP schemes on the basis of their energy efficiency and environmental performance, ensures that the associated fiscal benefits are in line with environmental performance.

The programme is carried out on behalf of the Department for Business, Energy and Industrial Strategy (BEIS), in consultation with the Scottish Executive, the National Assembly for Wales, and the Northern Ireland Department of Enterprise, Trade and Investment and has been running since 2001.

The [CHPQA Standard](#) sets out definitions, criteria and methodologies for the operation of the programme. It should be read in conjunction with the supporting [CHPQA Guidance Notes](#), which provide detailed information on how this Standard will be interpreted by government departments and agencies as well as guidance on compliance with this Standard.

Applying to CHPQA

The first step in the route to CHPQA certification is to register for the programme by completing [Form F1](#).

Form F1 is a basic administration form used to record the address of a proposed or existing CHP scheme and the contact details of the RP with whom

all resultant CHPQA correspondence will be made, and is the first form that needs to be completed.

This form must be signed by the RP prior to submitting. If the RP is responsible for more than one CHP scheme, only one F1 form needs to be submitted but a list of the relevant scheme addresses must be attached.

Following the receipt of Form F1, the CHPQA administrator will send the RP a unique reference number for the scheme(s) and a user name and password.

These are required to access the online [electronic submission system](#). Note that CHPQA applications may also be submitted on paper if preferred, though the online system is much simpler.

Following receipt of reference number and login details for the electronic submission system, the next step in the submission procedure is, in part, dependant on the complexity of the scheme, is it a 'simple' or 'complex' scheme.

CHPQA Online Submission

All self assessment forms can be completed online. Use [CHPQA online submission system](#) for CHPQA certification.

CHPQA Guidance Notes

CHPQA [Guidance Notes](#) are available for completing CHPQA forms.

'Simple' Scheme Submission Forms

A scheme is defined as 'simple' if it meets the following criteria:

- generating capacity < 2 MWe
- single reciprocating engine
- single conventional fuel used
- no heat only boiler present

Then the shortened versions of the CHPQA forms can be used which simplifies the submission procedure. These are denoted by the letter 's' following each form name e.g. [F2\(s\)](#), [F3\(s\)](#) and [F4\(s\)](#). There are 2 categories of simple schemes – existing and new– which are covered below.

Simple Schemes: Existing

If your scheme is already commissioned and running and you have sufficient operational data for at least one month, then you need to complete [Form F2\(s\)](#) and [F4\(s\)](#).

- [Form F2\(s\)](#) – this is used to provide details of the CHP scheme, such as installed equipment capacity, type, etc, and metering arrangements. Note: Form F2(s) only needs resubmitting if changes are made to the scheme.
- [Form F4\(s\)](#) – If your scheme has at least one month of operational data, this form is used to provide details of the scheme’s actual performance. You only need to submit the annual energy figures for:
 - Electricity generated
 - Fuel consumed
 - Heat utilised

Where the scheme is <500 kWe with no appropriate gas metering, the fuel input may be estimated based on power efficiency using the CHPQA ‘Unit List’ which can be found on the CHPQA website.

Note: Form F4(s) is resubmitted each year with scheme performance details for the previous calendar year enabling a new CHPQA certificate to be issued. If there are any significant changes to the scheme (e.g. boundaries, metering) a new Form F2(s), must also be resubmitted.

Simple Schemes: New

[Form F3\(s\)](#) is for self-assessment of schemes which are not yet operational enabling you to provide technical details and anticipated performance, based on design information prior to commissioning. It is not a requirement to complete a F2(s) at this stage.

It also allows you to request an energy efficiency certificate for the scheme that is used in claiming Enhanced Capital Allowances (ECAs). If a Certificate of Energy Efficiency is required you need to tick the box at the bottom of the declaration of the F3(s) form, provide a list of identified potential electricity customers and complete part 5.

Note: Form F3(s) is resubmitted each year enabling a new CHPQA certificate to be issued, where there is no change from the previous calendar year, this may be reflected by entering “as in F3(s) Self-Assessment for 20xx”.

The CHPQA certificate provided will be valid until the 31st December of the year of issue.

‘Complex’ Scheme Submission Forms

The sequence of forms is the same as for the ‘simple’ scheme submission, however more detail is required and thus the forms are longer. The descriptor ‘complex’ therefore covers all other schemes that are not ‘simple’:

A scheme is complex if it meets any of the following:

- generating capacity ≥ 2 MWe

- prime mover not a single reciprocating engine
- non-conventional fuel used
- fired boiler(s) included within scheme boundary

Complex Schemes: Existing

If your scheme is commissioned and running and you have sufficient operational data, then [Form F2](#) and [F4](#) must be completed.

- [Form F2](#) – this form is used to provide a description of the scheme. This requires a list of all installed equipment (prime movers, boilers, their capacity, type, age etc) and metering equipment that will be used to monitor the performance of the CHP scheme. You will also need to provide scheme schematics showing all the listed equipment and meters.
- [Form F4](#) – If your scheme has at least one month of operational data, this form is used to provide details of actual performance. You need to submit the following monthly energy figures:
 - Electricity generated
 - Fuel consumed
 - Heat utilised

You will also need to submit more supporting documentation than for simple schemes. This may include additional calculations necessary for determining the overall efficiency (the “Quality Index”) of the scheme.

Note: Form F4 is resubmitted each year with scheme performance details for the previous calendar year enabling a new CHPQA certificate to be issued.

Complex Schemes: New

If your scheme is still at the design stages, under construction or you don't yet have sufficient operational data, then you have to complete [Form F3](#).

The procedures are otherwise the same as for new simple schemes outlined above. All [CHPQA paper forms](#) are available here.

CHPQA Certificates

You may use your CHPQA Certificate to support a claim for the benefits offered to Good Quality CHP.

To use CHPQA to claim Climate Change Levy (CCL) exemption on fuel inputs to and power outputs from, your CHP Scheme you must also have a Secretary of State (combined heat and power) exemption Certificate for your CHP Scheme. Confirmation that a SoS (CHP) exemption certificate is required is done by completing the appropriate section of the CHPQA F3 or F4 submission form.

To use CHPQA to claim Enhanced Capital Allowances (ECAs), you must have a Secretary of State Certificate of Energy Efficiency. This is requested for by

completing the appropriate section of the CHPQA F3 submission form.

CHPQA Timescales

CHPQA is an annual certification process. Shortly after the end of each calendar year, it is necessary for the RP to:

- compile the CHP scheme energy data that was monitored over the previous year
- assess the scheme's performance
- submit the resultant figures on the appropriate forms for validation to CHPQA

RPs wishing to renew their CHPQA Certificate are encouraged to submit the completed forms by the end of March, allowing the CHPQA Administrator time to validate their forms and issue a new certificate in good time for the SOS Certificate to be maintained by BEIS at the end of June deadline.

Whilst the Administrator will accept forms beyond March, there is a risk that this delay will result in this deadline being missed. This means entitlement to CCL exemption will be removed from the beginning of the calendar year up until the time a new SOS (CHP) exemption Certificate is issued.

Certification Timetable

- CHPQA Certificates cover a calendar year and expire at the end of December
- SOS (CHP Exemption) certificates are open ended, provided that a valid CHPQA certificate is obtained by no later than end of June every year.

Contact CHPQA

CHPQA programme

The CHPQA Administrator
The Gemini Building

Fermi Avenue
Didcot
OX11 0QR

Email
chpqainfo@chpqa.com

CHPQA Helpline Number
01235 75 3004

The Helpline Number is open Mon to Fri 9am – 4pm

Case Studies

A series of selected [CHP case studies](#) are available here.

CHPQA Events

The CHPQA workshop and seminar 2018

In November 2018, the Combined Heat and Power Quality Assurance Programme is organising three identical workshops for registered CHPQA programme users. These workshop aims to help new and existing CHPQA Responsible Persons understand the online submission process and keep abreast of latest policy development in the CHP market.

These workshop consists of a morning and an afternoon session, separated by a lunch break for networking and discussion with the CHPQA experts. The morning session aims to provide an overview of the CHPQA principles, benefits and procedures while the afternoon session covers latest developments in the market.

Date	Venue
Wednesday 21 November 2018	Edinburgh University, Edinburgh
Tuesday 27 November 2018	Harwell, Oxford
Wednesday 28 November 2018	Harwell, Oxford

The events are free to attend; however places are limited and will be allocated on a first come first served basis (with priority given to Registered Responsible Person).

Complete

[CHPQA Event Registration Form](#)

(MS Word Document, 91.5KB)

and return to the CHPQA Helpdesk without delay to ensure your place

The CHPQA workshop and seminar 2017

CHPQA completed three one day events for CHPQA Responsible Persons. Each event followed the same format with a workshop in the morning providing an overview of the principles, benefits and procedures of CHPQA with the submission process explained, using online submission system examples, covering the data required, and an update of latest developments with the online system. The afternoon session covered a seminar with presentations covering recent developments with the RHI and its impact on renewable CHP, other fiscal benefits for GQCHP, how these interact and key timescales that you need to be aware of.

The [presentations delivered during the CHPQA workshop and seminar 2017](#) are available to download.

UK National Comprehensive Assessment stakeholder event

Following the publication of the UK's National Comprehensive Assessment for high-efficiency CHP and efficient district heating and cooling, DECC held a stakeholder event on 15 April 2016 at which the final results were presented by Ricardo Energy & Environment who undertook the study. The presentations delivered during the event are available to download here

[National comprehensive assessment presentation](#)

(PDF, 2.84MB, 65 pages)

The full NCA report is available [here](#).