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CHP QA

Principles and Procedures

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CHPQA

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CHP QA

Talk Coverage

- Quick Review
  - Principles
  - Roles & Responsibilities
  - Certificates
- CHPQA Procedures

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CHP QA

Why CHPQA?

- It is a tool for measuring the Quality of CHP Schemes
- A rigorous system is needed to:
  - ensure that incentives are targeted fairly
  - Ensure that it only benefits schemes making significant environmental savings
- CHPQA provides the methods and procedures needed to assess and certify the quality of the full range of CHP Schemes

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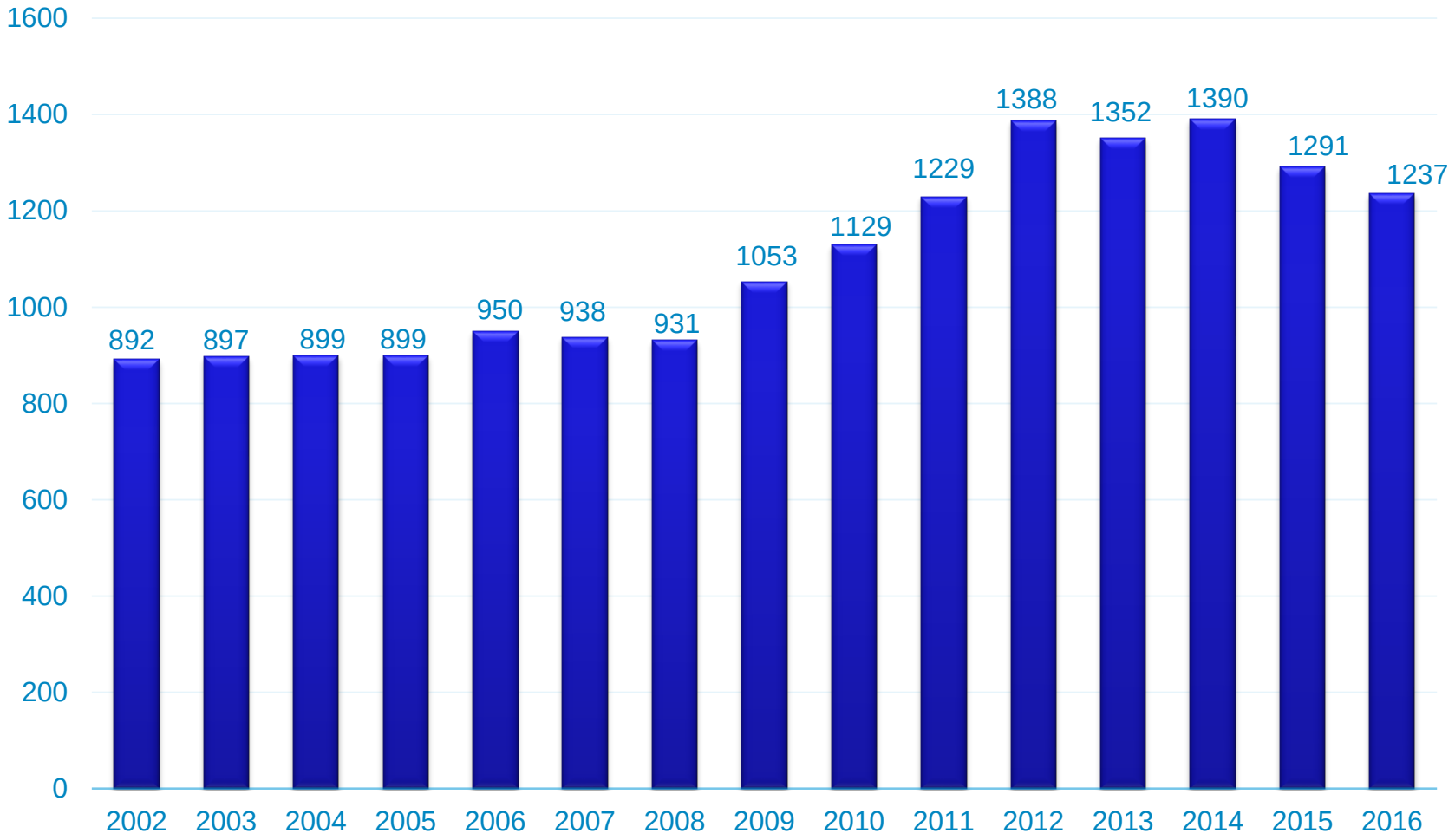
Number of Schemes



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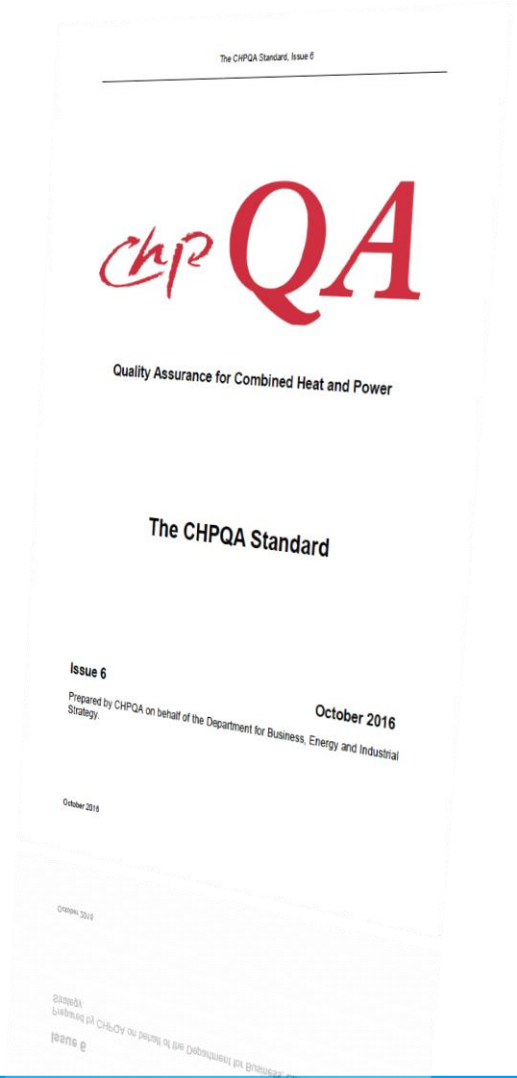
Definition of GQCHP

Set out in the CHPQA Standard

- For Existing Schemes:
  - Quality Index (QI) ≥100 and
  - Power generation efficiency of ≥ 20%
- For Upgraded & New Schemes:
  - Quality Index (QI) ≥105 and
  - Power generation efficiency of ≥ 20%.

See Issue 6 - Published October 2016
See also CHPQA Guidance Note 44 Issue 6 with regard to ROCs and CfD support



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CHPQA QI Formulas

The general definition for QI is:

$$QI = (X \times \eta_{power}) + (Y \times \eta_{heat})$$

Where:

Power Efficiency (η_{power}) = CHP_{TPO}/CHP_{TFI}

and

Heat Efficiency (η_{heat}) = CHP_{QHO}/CHP_{TFI}

X and Y are parameters which depend on the type of fuel used and size of scheme (MW_e)

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CHPQA X and Y Definitions

- Given in the CHPQA Standard
- Depend on scheme specific fuel type and power capacity
- Full details this afternoon

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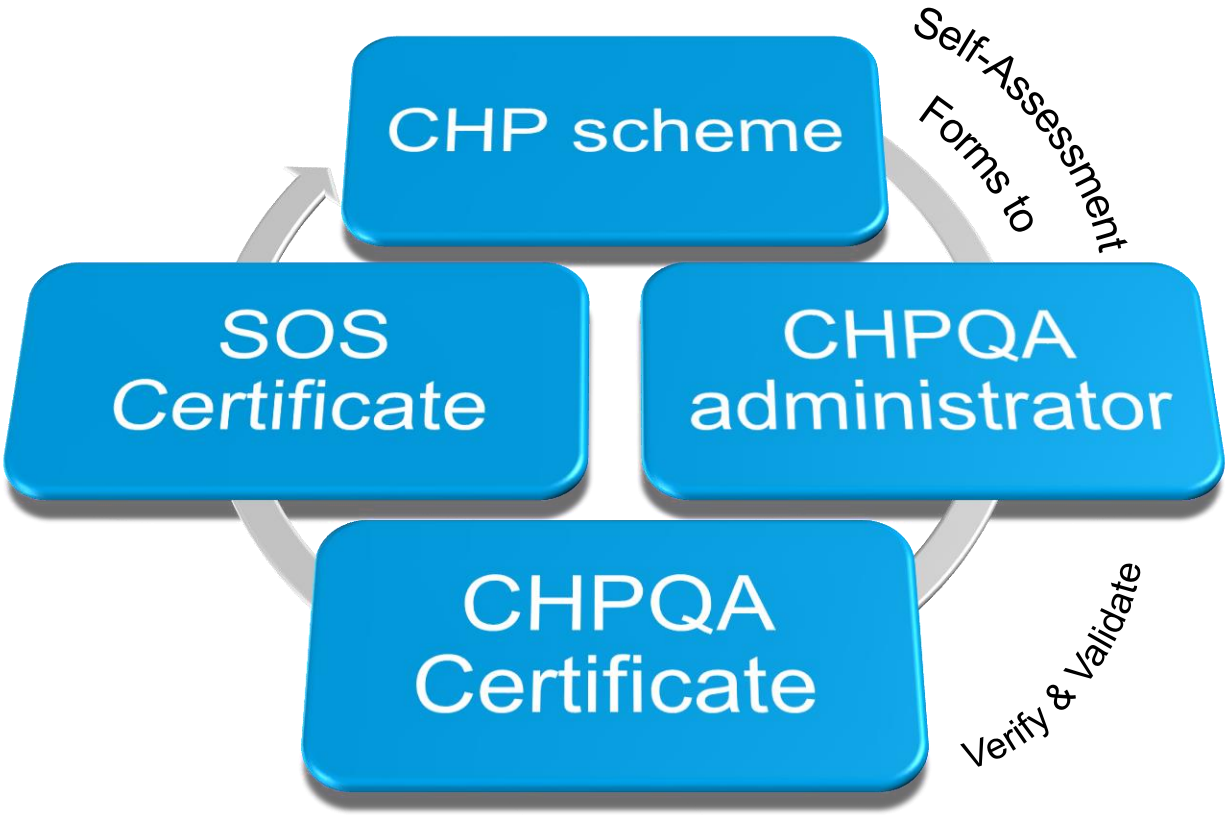
Self Assessment & Certification



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Roles & Responsibilities

- CHPQA Administrator/Managed by Ricardo Energy & Environment
- BEIS
- Other Government Departments (HMRC, VOA)
- Ofgem - for issuing ROCs, RHI
- Low Carbon Contracts Company – CfD contracts.

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CHPQA Submission

- A range of forms have been developed :
  - F1 (contact details);
  - F2 (scheme description);
  - F4 (scheme actual performance in previous calendar year) and
  - F3 (scheme predicted performance for new and upgraded schemes).
- Simplified procedure and forms for small single reciprocating engine based schemes (<2MW_e).
  - Only have to provide three figures per year.

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CHPQA Forms

- CHPQA Forms to be submitted:
  - **F1**...only if RP or company name has changed
  - **F2 and F2(S)..**only if Scheme boundaries or monitoring arrangement have changed
  - **F4 & F4(S)** annual submission using actual performance data
  - **F3 & F3(S)** annual submission using design data. If no change …. Submit the same form… Once a new or upgraded Scheme has at least 1 month of data in CHP mode, Form F4 or F4(S) must be submitted in the first January of Initial Operation.

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Short Forms for <2MWe CHP Schemes

- Schemes eligible to use short forms:
  - Reciprocating Engine Prime Mover
  - Less than 2MW_e Total Power Capacity
  - Only a single conventional fuel
  - Only include a single prime mover,
  - No heat only boilers
- F2(S) > 2 pages
- F3(S) > 4 pages
- F4(S) > 4 pages

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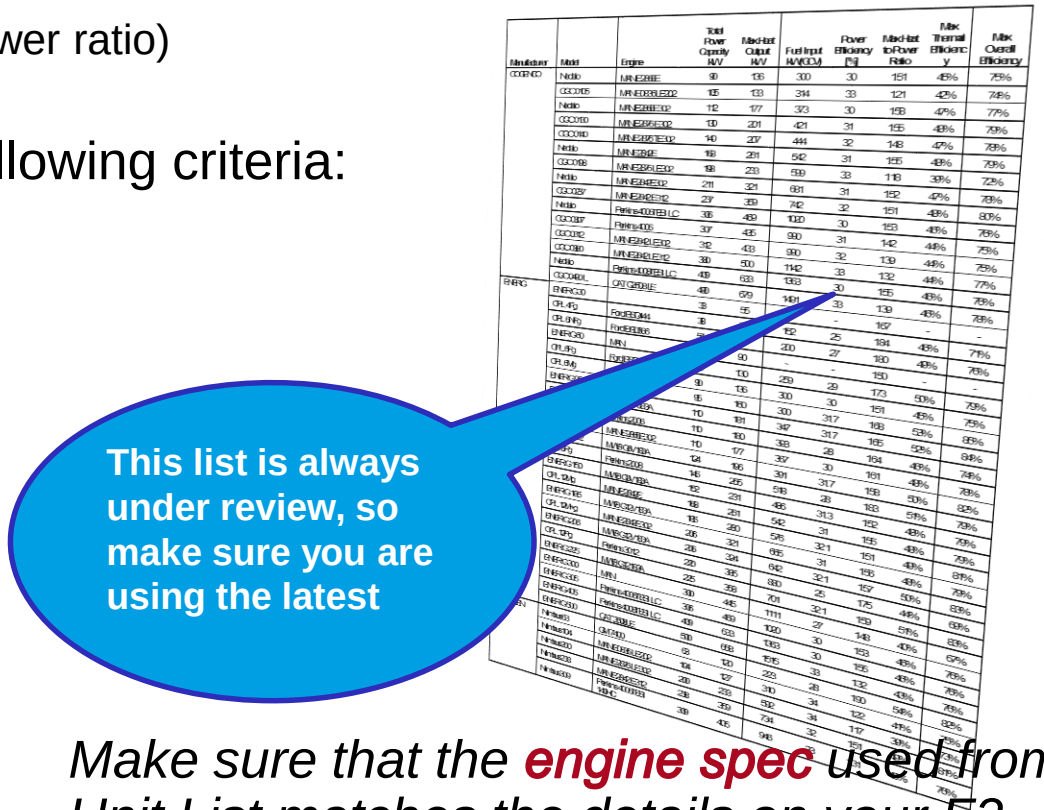
Simplification for <500kWe Schemes

Simple small CHP schemes can use the CHPQA Unit List to determine:

- Gas input (based on power efficiency) and
- Heat output (based on heat-to-power ratio)

Only CHP units meeting the following criteria:

- CHP Scheme with TPC <500kWe
- Only include a single prime mover
- Using Natural Gas fired engines
- No facility to dump heat



This list is always under review, so make sure you are using the latest

*Make sure that the **engine spec** used from Unit List matches the details on your F2*

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CHPQA Submission

- Electronic submission is now used for ~97% of all submissions.
- Paper forms in PDF are available to download from the website.

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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 **no later than end of June every year**
- ***To obtain an SoS certificate need to make sure you select the correct option***

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Where do you go from here?

- All CHPQA Certificates issued in 2016 will expire on 31st of December 2016
- **New self-assessments should be submitted to the CHPQA Administrator before end of March 2017**
- **Based on 2016 actual data:**
  - Fuel used
  - Electricity generated
  - Heat utilised (actual)
- **If all is in order new certificate (based on 2016 data) will be issued before the end of June 2017**