



Department
of Energy &
Climate Change



Appendix B – Deemed Savings Manual

Electricity Demand Reduction pilot
M&V manual

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URN 14D/279

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Deemed Savings Manual

Before reading this Appendix you should ensure that you have read the Participant Handbook and the following sections of the Measurement and Verification Manual:

Chapter 1: Introduction

All sections

Chapter 2: Completing the M&V Plan

2.1 Contact Information

2.2 Site Payback

2.3 Project Detail

2.4 Operational Verification

Chapter 3: Post Installation Activities

3.1 Reporting Operational Verification

3.2 Reporting Savings from Your Project

1.1. Overview of Deemed Savings

This Appendix to the M&V manual details the deemed savings methodology for the electricity demand reduction pilot. Here you will find:

- The technologies suitable for using the deemed methodology
- The inputs you will need in order to complete Demand Reduction calculations
- Supporting information to help you use the calculators correctly
- Evidence requirements – in some cases you will need to provide evidence to substantiate the inputs on the spreadsheet.

The deemed savings approach is used to calculate project savings in advance, where the participant is not expected to carry out electricity/energy monitoring before or after implementation. It is used for technologies where the expected savings are predictable, consistent and widely replicable across different contexts. It applies to simple efficiency measures whose performance characteristics and use conditions are well known.

The savings are calculated based on a mixture of input data (e.g. type of equipment being replaced, details of the replacement, peak applicability and the application of use) and deemed or assumed factors (e.g. load factors, cycle times), which are defined based on research, historical experience and expert guidance.

In order to calculate the deemed kW savings of the equipment, you will be required to enter data about the original and replacement equipment. The deemed savings approach is designed so that the information you will need to contribute is minimised making the calculation of savings straightforward. Deemed savings measures must meet the same eligibility criteria as all other measures. Please ensure that you have read the eligibility section of the participant handbook and are confident the requirements will be met before you proceed.

Only technologies on the deemed list can use the deemed savings approach (see section 1.2.

Which Measures are eligible for the deemed methodology?) below for a list of eligible deemed technologies and the Measure Overview and Data Calculation document for a more detailed description). For applications using technologies not found on the deemed savings list please consult the alternate M&V methods (see the M&V Manual).

Please note that you are not compelled to use the deemed savings approach for technologies on the list. You are free to choose one of the three metered approaches set out in the M&V manual if, for example, actual meter readings of the savings will be available.

1.1.1 Naming Convention for files that form part of your M&V submission

You must ensure that for any files submitted as part of your M&V Plan you use the following naming convention:

Application ID, record category, description of file, ddmmyy

Application ID: You will be allocated an Application ID by DECC at the start of the application process. This will be in the form of your Participant ID (4 letters and 4 numbers – provided on submission of your Expression of Interest) followed by three numbers e.g. GHHT0708-876

Record Category: You must select one of the following categories:

- M&V Plan
- Deemed Calculator
- Site Payback

- kW savings
- OV
- Baseline
- Reporting

If you need to attach a file that does not fit into any of the above categories please create a clear concise category name for your submission.

Description of file: You should describe the information you are submitting clearly and concisely. See examples for each Record Category below:

Record Category	Description of file
M&V Plan	No description is required as you should only have one M&V Plan per application.
Deemed Calculator	Please use the technology of the calculator you have used e.g. Lighting Controls, PRSCs etc. See Appendix B.
Site Payback	Please describe the evidence you are submitting to support your site payback calculation e.g. supplier quote. See section X.
kW savings	Please describe the evidence you are submitting to support your kW savings estimates e.g. supplier audit. See section X
OV	Please describe the evidence you are submitting to detail you're your Operational Verification e.g. motor commissioning procedure. See section X.
Baseline	Please use your Boundary ID for Template Calculation Spreadsheets or your Boundary ID plus "raw data" for raw meter data e.g. B1, B1 raw data etc. See section X.
Reporting	Please use your Boundary ID for Template Calculation Spreadsheets or your Boundary ID plus "raw data" for raw meter data e.g. B1, B1 raw data etc. See section X.

Date: This is for version control, please use the date you are submitting your final version. Please use the format ddmmyy.

Please see example file names below:

- M&V Plan
e.g. GHTT0708-876 M&V Plan 030515
- Deemed Calculator
e.g. GHTT0708-876 Deemed Calculator Lighting Controls 030515
- Site Payback
e.g. GHTT0708-876 site payback supplier quotes 030515
- kW savings
e.g. GHTT0708-876 kW savings supplier audit 030515
- OV
e.g. GHTT0708-876 OV motor commissioning procedure 030515
- Baseline
e.g. GHTT0708-876 baseline B2 030515
- Reporting

e.g. GHTT0708-876 reporting B2 030515

1.2. Which Measures are eligible for the deemed methodology?

The full list of measures suitable for using the deemed savings methodology within the EDR pilot is as follows:

- **Heating controls** – installing controls which improve the control of electrically powered heating systems, including both direct electrical heating systems, and heat pump based systems.
- **Lighting controls** – installing controls to turn off or dim lighting based on occupancy detection.

Note that lighting replacement or lighting control projects may be carried out independently or as a combined measure (i.e. both new lighting and controls)

- **Lighting Replacement** – replacement of existing lighting with efficient, high frequency fluorescent, LED, induction or efficient high intensity discharge lighting.
- **Motors & Variable Speed Drives (VSDs)** – replacing existing AC single speed induction or permanent magnet synchronous motors with more efficient models and/or adding variable speed drive control to a motor installation
- **Process Chillers** – replacement of packaged chillers used for process cooling to produce chilled water or other liquids.
- **Professional Refrigerated Storage Cabinets (PRSC)** – replacement of refrigerated storage cabinets. PRSCs are specifically designed to store, but not to display, chilled and/or frozen foodstuffs.
- **Retail Display Cabinets (RDCs)** – replacement of retail display cabinets specifically designed to store and display chilled and/or frozen foodstuffs. RDCs enable the customer to view the foodstuff either through an opening in the cabinet, or through a transparent door or lid.

For a more detailed description of each technology, please see Appendix H: Deemed Measure Overviews and Data Calculations.

PLEASE NOTE: ONLY TECHNOLOGIES DESCRIBED IN APPENDIX H: DEEMED MEASURE OVERVIEWS AND DATA CALCULATIONS ARE ELIGIBLE FOR THE DEEMED SAVINGS APPROACH.

There are two broad types of deemed savings project, these are:

- replacement of existing equipment with new, more efficient replacements
- installation of add-on controls to improve the efficiency of an existing system

1.2.1 Replacement equipment

A replacement is where an existing item of equipment is being substituted with a new efficient alternative. The replacement equipment must be the same technology, but not necessarily of the same equipment specification. For motors and process chillers one for one replacement is

required. For all other technologies the number of equipment items being replaced and being purchased does not need to match. However, the replacement equipment must perform the same function and duty as the original equipment.

1.2.2 Add-on controls

Some products don't use energy in themselves, but reduce the energy use (and demand) of existing equipment. Variable speed drives, lighting controls and HVAC controls fall into this category.

The deemed savings approach can be used for control technology, but **only** where there is currently no control fitted. Replacement of existing controls cannot be claimed through deemed savings.

1.2.3 Technology Interactions

In a few cases the interaction between certain technologies will impact on the ability to accurately deem the amount of savings achievable. In this case the equipment will not be eligible under the deemed savings methodology and one of the other M&V approaches would need to be used. However for the pilot project most eligible equipment types can be combined.

Where a measure may lead to additional savings beyond the equipment being replaced, then the participant may choose to use an alternative M&V approach. For example, if the installation of new RDCs with doors would also reduce demand from electrical heating.

Where demand reduction projects involve a combination of deemed savings measures, and measures which use alternative M&V approaches, then advice should be sought in advance from your technology supplier in the first instance and then, if necessary, DECC to confirm eligibility of the particular combination concerned, and whether a combination of approaches is acceptable.

1.3. Using the deemed savings methodology

For each technology category the following resources have been provided:

Spreadsheet calculator - Each technology category has an associated spreadsheet savings calculator with embedded formulae and deemed factors. Within each calculator instructions are provided, listing what data you are required to input and how to use the calculator. You should use the calculators to list details of your current and proposed equipment. The calculator will then output the deemed demand saving to use for your demand reduction bid.

Appendix H: Deemed Measure Overviews and Data Calculations

Measure overviews – These short descriptions define the eligibility criteria for the technologies covered under the deemed savings approach. Please use these to confirm your project is suitable for the deemed savings approach and understand what information will be required to complete your submission and fill out the calculators.

Technical data and calculation sheets – these are provided for information to show how the kW demand savings are determined within the spreadsheet calculator. They detail the formulae for the calculations, the deemed factors which are used, and a worked example calculation. **This is for information only. You do not need to carry out the calculations manually to complete your submission.**

1.3.1. Use the Measure Overview and Data Calculation document to determine if your project is suitable for deeming

Please consult the measure overview description for your technology (within Appendix H: Deemed Measure Overviews and Data Calculations) in the first instance to be sure your project is eligible for the deemed savings approach. Here you will find:

- A description of eligible technologies – if the product you wish to buy or replace is not included, then you should not use the deemed saving approach
- Target Market and end uses
- Applicability
- Exclusions – measures that cannot be undertaken using the deemed savings approach
- Further useful definitions

1.3.2. Use the spreadsheet calculator to calculate your expected demand reduction

The spreadsheet calculators comprise both input tabs and information tabs. Data for the existing and replacement equipment is required – this can be obtained by inspecting the existing equipment (for example reading from the rating plate) or from suppliers or manufacturers for new equipment (for example supplier sales and technical literature, and formal quotations).

All calculators contain the following Tabs:

Cover Sheet: The first tab (Cover Sheet) provides instructions for successfully filling out the deemed savings calculator. This tab also includes details on the input requirements for that specific measure and what types of equipment qualify.

On the cover sheet, you should also enter your organisation details, along with a description of the project, this must include:

- Participant ID
- Application ID
- A description of the existing and replacement technology types included in the project
- The number of installations of each equipment type
- The number of sites included in the bid
- The key timelines of the project including the expected purchase timing and installation
- Any other relevant information e.g. if the project has or will be assessed as meeting regulations or required standards.

For example:

'Planning to replace existing 2,800 T8 58W fluorescent lights and 850 compact florescent lights with LED alternatives at our London and Birmingham sites. Measures will be installed by [supplier name] for completion during June 2015. The measures have been assessed by [consultant name] and meet all requirements for building regulations and health and safety standards.'

The final output, i.e. the kW demand reduction for the project(s) is automatically calculated and displayed on the top right-hand corner of the cover sheet once you have entered the necessary information on the input sheet(s).

This is the value that should be used to calculate your EDR saving value and should be input into cell B7 of the “Project detail and peak savings” tab within your M&V Plan.

Please note, if you have more than one EDR saving value e.g. if you have used more than one calculator, you will need to sum them together to get an overall saving for Deemed. If you have also used any other M&V methodologies the kW saving will be automatically calculated in the M&V Plan and added to the Deemed value you have entered.

Help Sheet: This tab contains further details of exactly what information must be added, a glossary of terms to clarify terminology, and other useful information specific to that technology.

Data Input Sheet(s): For each technology there are input tabs where you need to enter data about the existing measures you have in place and the proposed replacements. The sections below detail the requirements for each technology.

1.3.2.1. Heating Controls

This calculator is to be used for the installation of new modern automatic heating controls that serve electrically driven heating systems.

For this calculator there is only one input sheet and you are required to enter one line of details per controls measure for each building type being controlled

- Building Name
- Confirmation of building type
- Site Code (from your M&V Plan)
- Type of electrical heating (direct, heat-pump/VRF)
- Details of existing and proposed controls
- Floor area (m2)
- Peak Applicability
- Operational Verification Procedure

Further details and help on how to source this information is found on the calculators.

1.3.2.2. Lighting Controls

This calculator should only be used for lighting control installation, in which the luminaires are not being replaced. For this calculator there is only one data input sheet. You should fill out the details of the existing lighting system (identical to the lighting calculator) and confirm the type of lighting controls being installed as shown in the example on the calculator. You are required to input:

- Building Name
- Site Code (from your M&V Plan)
- Confirmation of Building Type
- Location within Building
- Existing lighting source types
- Accurate quantities of existing luminaires and lamps per luminaire
- Accurate wattages of existing luminaires/lamps

- Existing and proposed lighting control details
- Peak Applicability
- Operational Verification

Further details and help on how to source this information is found on the calculators.

1.3.2.3. Lighting Replacement

This calculator should be used for all projects in which the luminaires are being replaced, whether or not lighting controls are being installed.

There are two separate data input tabs, one for the existing equipment and one for the proposed. On the existing lighting system sheet you should fill out one line for every different luminaire, or group of identical luminaires being replaced. On the proposed units tab you should fill out one line for every different replacement product (or group of identical products). The first row of the spreadsheet, in red, is an example and is not included in the calculation.

You may use a different number of rows on each sheet e.g. if the number of luminaires in the proposed solution is different to the existing set-up. However the areas being lit must be the same before and after the measures are installed. You are required to input:

- Building type & location within building of the proposed installation
- Site Code (from your M&V Plan)
- Existing and proposed lighting source types
- Accurate quantities of existing and proposed luminaires/lamps
- Accurate wattages for existing and proposed luminaires/lamps
- Lighting control details (if part of the existing system and/or proposed installation)
- Peak Applicability
- Operational Verification

Further details and help on how to source the required information is found on the calculators.

1.3.2.4. Motors and Variable Speed Drives (VSDs)

This calculator should be used when you are replacing motors and/or fitting variable speed drives. There are two data entry tabs on this calculator. Which one you should use is described below.

For replacement motors, the existing equipment and proposed equipment should be entered into the “motor replacement input” tab whether or not a VSD is also being installed. Details of the existing and proposed equipment should be entered into adjacent lines on this sheet. Only “one for one” motor replacements are allowed using the deemed saving approach.

You are required to input:

- Site Code (from your M&V Plan)
- Motor description and type of motor
- Number of Motors
- The kW rating of the existing and proposed motors
- The approximate age of existing motors

- The application/use of the motor (i.e. pumps, fans)
- The efficiency rating of the new motor (IE number)
- Confirm whether a VSD is already installed or is being installed as part of the proposed installation.
- Peak Applicability
- Operational Verification

Where a VSD is being fitted to an existing motor (i.e. the motor is not being replaced), the “VSD only input” tab should be used. The tab only requires you to enter one line of information detailing the existing motor and application and confirming that a VSD is being installed. You are required to input:

- The kW rating, age and application (i.e. pumps, fans) of the existing motor
- Confirm whether a VSD is already installed or is being installed as part of the proposed installation.

Further details and help on how to source the required information is found on the calculators.

For measures involving the replacement of one motor with a number of smaller motors, deemed savings cannot be used. Please use an alternative M&V approach (see section 2.5 of the M&V Manual).

1.3.2.5. Process Chillers

This calculator should be used when replacing existing process chillers with more efficient units. The chillers must only be used for process cooling, not air conditioning applications. Only high temperature units <1MW capacity are eligible i.e. those designed to deliver their rated cooling capacity at an indoor heat exchanger outlet temperature of 7°C, at standard rating conditions.

Details of both the existing and replacement equipment should be entered into adjacent lines on a single “chiller input data sheet”. Only “one for one” chiller replacements are allowed using the deemed saving approach. You are required to input:

- Site Code (from your M&V Plan)
- Description and quantity of units
- Confirmation of whether the chillers are air or water cooled
- Whether free cooling is part of the existing and/or proposed measure
- The kW rating of the existing and proposed chiller(s)
- Age of the existing unit(s)
- The COP (co-efficient of performance) of the proposed chiller(s) when operating at an outlet temperature of 7°C
- Peak Applicability
- Operational Verification

Further details and help on how to source this information is found within the calculator.

For measures involving the replacement of one chiller with a number of smaller chillers, deemed savings cannot be used. Please use an alternative M&V approach (see section 2.5 of the M&V Manual).

1.3.2.6. Refrigeration: Professional Refrigerated Storage Cabinets (PRSCs) and Retail Display Cabinets (RDCs)

There is one calculator to use for the replacement of refrigerated display cabinets (RDCs), specifically designed to store and display food products. A similar calculator is provided for the replacement of professional refrigerated storage cabinets (PRSCs), which are specifically designed to store, but not display, food and other products.

There are two separate data input tabs within each calculator, one for the existing equipment and one for the proposed. On the existing units tab you should fill out one line for every different unit, or group of identical units being replaced. On the proposed units tab you should fill out one line for every different replacement unit (or group of identical units). The first row of each spreadsheet, in red, is an example and is not included in the calculation.

You may use a different number of rows on each sheet e.g. if the number of units in the proposed solution is different to the existing set-up. However the total capacity of the replacement units must be equal to or greater than the existing units. You are required to input:

- Site Code (from your M&V Plan)
- Description and quantity of units
- The temperature classification (chilled or frozen)
- Approximate age range of the existing units
- kW rating of the existing and the proposed
- The Total Energy Consumption (TEC) of the proposed unit (from manufacturer quotation or data sheets)
- For RDCs: The TEC or Total Display Area (TDA) of the existing unit.
- For PRSCs: The TEC or gross volume (in litres) of the existing unit
- The geometry (vertical/horizontal) of the units.
- Peak Applicability
- Operational Verification

Further details and help on how to source this information is found on the calculators.

For all spreadsheet calculators you will need to provide information on peak applicability and operational verification. Descriptions of what is required and why are provided below:

Peak savings¹:

Each data sheet has a requirement to input data regarding the operating period of the equipment during the winter peak period. You will need to complete the following information:

- **Peak Applicable Hours:** In each spreadsheet you will find 4 columns that require you to select '**yes**' or '**no**' as to whether your technology is operational during that time. Select '**yes**' only if the technology is operational for the full hour.
- **No. of days applicable across the peak period** – this is the number of days that your stated peak applicable hours are relevant across the peak (weekdays, Nov – Feb inclusive, excluding bank holidays) and would be a default of 83 days (100%) if

¹ For more information on peak savings see the M&V Manual

you are on for the full period. You may not enter a number higher than 83 (even if you operate on bank holidays or weekends). You may however, enter a number lower than 83. Examples are:

- We close for 2 weeks in December (reduce by 10 days) = 73
- We don't work Fridays (reduce by 17 days) = 66
- Please describe how you have arrived at your No. of days. – if your number of days is anything other than 83 you need to provide a description of why. Examples are as above:
 - 73 - we close for 2 weeks at the start of December
 - 66 - we don't work Fridays
- Where there are separate data input tabs for the existing and the proposed equipment, you will need to enter the peak applicable hours and days on both tabs. You should ensure these entries match for each item/group of equipment between the existing and proposed data entry tabs.
- Where you have items or groups of identical equipment being replaced, but which are operated at different times, you will need to enter them on separate lines of the tabs.

Example: T5 fluorescent lights in the main office operate from 4-8pm should be entered on one line. The same T5 lights in the reception area turn off at 6pm, so these need to be entered on a second line.

Operational Verification:

Please see section 1.4.3 below for guidance on Operational Verification. For the Deemed Savings approach, the description of OV procedures should be added to your spreadsheet calculator(s) NOT your M&V Plan.

FOR ALL TECHNOLOGIES please note, the spreadsheet calculators are locked so that you can only enter information into the valid input fields.

Please do not

- **attempt to enter data into cells which aren't valid input fields;**
- **enter data which does not meet the validation criteria;**
- **attempt to unlock the formulae and reference data;**

as this may invalidate your application.

If you would like to understand how the total deemed savings has been calculated, full details of the formulae and reference data can be found in the data calculation sections of Appendix H: Deemed Measure Overviews and Data Calculations.

1.4. Application Submission Checklist

The following is a list of files that will need to be supplied to successfully complete your application.

Please ensure that for all attached files you follow the naming convention:

Application ID, record category, description of file, ddmmyy

E.g. **GHTT0708-876 OV receipt 030515**

1.4.1. Completed M&V Plan

The M&V Plan Template should be downloaded from <https://www.gov.uk/electricity-demand-reduction-pilot> and the following tabs completed to provide:

- Contact Information
- Site Payback
- Project detail and peak savings (only the project saving needs to be completed).

The Guidance for completing these sections can be found in sections 2.1, 2.2 and 2.3 of the M&V Manual.

1.4.2. Completed Spreadsheet Calculator(s)

The calculator(s) should be downloaded from the EDR website <https://www.gov.uk/electricity-demand-reduction-pilot> and completed as described in section 1.3.2. Use the spreadsheet calculator to calculate your expected demand reduction to determine the demand reduction kW figure for your project.

The completed spreadsheet should be saved for your own records and submitted as part of the application. As stated above the “Total kW Saving” value from the “Cover Sheet” tab of your calculator should be input into cell B7 of the “Project detail and peak savings” tab within your M&V Plan.

Please note, if you have more than one EDR saving value e.g. if you have used more than one calculator, you will need to sum them together to get an overall saving for Deemed. If you have also used any other M&V methodologies the kW saving will be automatically calculated in the M&V Plan and added to the Deemed value you have entered.

1.4.3 Operational Verification

Operational Verification refers to activities that take place once the new equipment is installed, aiming to make sure that they are working as intended with the potential to generate the expected electricity reductions. It is important to make sure that the procedures that will be followed for each technology are established prior to their implementation.

You should expect your supplier to be able to provide details of the process that should be followed once their technology is installed in order to ensure that it is working properly. Operational Verification processes may be carried out by the supplier, an external consultant or the participant themselves.

Regardless of the approach taken to measure the savings from the EDR project, the procedures for operational verification are required for each technology type included in your bid. You will need to provide your operational verification evidence no later than the final installation deadline for your equipment, by 15 October 2015.

There is an “**Operational Verification Procedure**” column in all spreadsheet calculators for you to include details of your Operational Verification activities.

These activities will depend on the nature of the equipment installed, but could include:

- A visual inspection
- Measurements from a sample of installations – please provide a rationale for sample size used.
- Established commissioning procedure followed by the supplier every time their technology is installed.

Once you have installed the equipment you will have to provide evidence of operational verification. Further detail on the evidence required is provided in the section 1.5.1.

Documentation for Operational Verification can be appended to your application as required. It should be labelled following the naming convention:

Please ensure that for all evidence files you follow the naming convention:

Application ID, record category, description of file, ddmmyy

E.g. **GHTT0708-876 OV receipt 030515**

An example approach is provided in Appendix C.

1.4.4. Evidence to support your kW bid value

You will need to provide evidence to support your bid as described for each technology in the table below. Evidence is required to confirm the details of the equipment being replaced and the specification of the new equipment.

For all technologies you will need to provide a signed declaration at Director level that the information entered into the calculator is correct to the best of your knowledge.

The following table gives the evidence requirements for each technology.

Technology	Evidence for Original technology	Evidence for proposed technology
Lighting	Signed declaration (as above)	Signed declaration (as above) AND A copy of the supplier’s quotation for the proposal, listing each luminaire type and quantity to be installed. AND A copy of the manufacturer brochure or technical data sheets, or website link to them, detailing the technical specification of the luminaire/lamps being installed within this measure.
Lighting Controls	Signed declaration (as above)	Signed declaration (as above) AND A copy of the supplier’s quotation for

		<p>the proposal describing the control system being installed.</p> <p>AND</p> <p>A copy of the manufacturer brochure or technical data sheets, or website link to them, detailing the technical specification of the controls being installed within this measure.</p>
Motors and Variable Speed Drives (VSDs)	<p>Signed declaration (as above)</p> <p>AND</p> <p>A photograph of the existing equipment and a photograph of the rating plate clearly showing the kW capacity for each type of motor being replaced, or attached to a VSD.</p>	<p>Signed declaration (as above)</p> <p>AND</p> <p>A copy of the supplier's quotation for the proposal which states the kW rating for each replacement motor/VSD and, for replacement motors, states the IE efficiency rating of each of the proposed motors.</p> <p>AND</p> <p>A copy of the manufacturer brochure, or technical data sheets, or website link to them, detailing the technical specification of each type of motor and/or VSD being installed under this measure.</p>
Process Chillers	<p>Signed declaration (as above)</p> <p>AND</p> <p>A photograph of the existing equipment and a photograph of the rating plates showing the kW cooling capacity for each type of chiller being replaced.</p>	<p>Signed declaration (as above)</p> <p>AND</p> <p>A copy of the supplier's quotation for the proposal detailing the exact product name and model numbers for each chiller being installed.</p> <p>AND</p> <p>A copy of the manufacturer brochure or technical data sheets, or website link to them , or manufacturer declaration on headed paper, stating the COP value of the proposed equipment when operating at 7°C.</p>

Refrigeration: Retail Display Cabinets (RDCs) and Professional Refrigerated Storage Cabinets (PRSCs)	<p>Signed declaration (as above) AND</p> <p>A photograph of the existing equipment and a photograph of the rating plate for each type of cabinet being replaced</p> <p>AND FOR RDCs:</p> <p>A copy of a manufacturer's brochure or technical data sheet showing the Total Energy Consumption (TEC in kWh per 24 hrs) OR showing Total Display Area (TDA in m²) OR details of a calculation to determine the Total Display Area (TDA)</p> <p>AND FOR PRSCs:</p> <p>A copy of a manufacturer's brochure or technical data sheet showing the Total Energy Consumption (TEC in kWh per 24 hrs) OR showing gross volume (m³) OR details of a calculation to determine the gross volume.</p>	<p>Signed declaration (as above) AND</p> <p>A copy of the supplier's quotation for the proposal detailing the exact product names and model numbers for each chiller being installed.</p> <p>AND</p> <p>A copy of the manufacturer brochure or technical data sheets, or website link to them, including the TEC of each type of proposed equipment should be provided.</p>
Heating Controls	<p>Signed declaration (as above) AND</p> <p>Photographs of the existing heating system and the main areas being heated.</p>	<p>Signed declaration (as above) AND</p> <p>A copy of the supplier's quotation for the proposal.</p> <p>AND</p> <p>A copy of the manufacturer brochure or technical data sheets, or website link to them, detailing the control systems being installed.</p>

Please ensure that all evidence is attached as part of your application and follows the standard naming convention:

Application ID, record category, description of file, ddmmyy

E.g. **GHTT0708 kW EDR signed declaration 030515**

1.4.5. Evidence to support your peak saving declaration

You are not required to provide evidence of the hours of operation during the peak period when you submit your M&V Plan. However, DECC may require evidence of peak applicability from a sample of participants over the period of the pilot and participants will be responsible for substantiating the figures submitted via their M&V Plan and Calculators.

Evidence could include but is not limited to:

- Opening hours, e.g. those listed publically where relevant, or sign-off from appropriate person within the organisation
- Output from a Building Management System showing time of use settings
- Operational schedules e.g. for manufacturing
- Interval meter data if available
- Sensible rationale and sign-off for equipment in use 24/7, e.g. emergency lighting

If your peak applicability changes during the period of the pilot you are required to inform DECC of the change and your payments may be affected. See section 1.5.Reporting: Post-Installation Checklist below.

1.4.6. Evidence to support your payback calculation

As detailed in section 2.2 of the M&V Manual, you will need to provide supplier quotes to substantiate the cost of equipment being installed as well as a breakdown of installation and delivery costs where relevant. This evidence will likely be covered by the requirements in the table at section 1.4.3.

1.5. Reporting: Post-Installation Checklist

1.5.1. Reporting Operational Verification

When installing measures you will need to ensure that the processes and procedures you outlined for Operational Verification in your spreadsheet calculator(s) are followed and that you are able to provide evidence by the 15 October 2015 to verify that the activities have taken place.

Please provide the following evidence to support purchase and installation of equipment and removal of old equipment:

a) Receipts/proof of purchase of the equipment – these should post date the auction

AND

b) Commissioning certificate – which should include the following as a minimum:

- Registered company name and address, and site address where the equipment was installed
- A full list of the equipment installed, matching the original quotation, with date of installation
- The customer's printed name and signature, on behalf of their company
- The equipment supplier's name and address
- The installation engineer's printed name and signature

You should detail any files you are attaching as evidence in the spreadsheet calculator(s) column titled “**Post Installation Evidence**”.

Please ensure that for all evidence files you follow the naming convention:

Application ID, record category, description of file, ddmmyy

E.g. **GHTT0708-876 OV receipt 030515**

1.5.2 Reporting Peak Applicability

Following implementation, there are two reporting milestones to which payments are attached. Section 6 (pg. 40) of the Participant Handbook sets out more detail, the two milestones are:

- **A Winter Capacity Savings Report (WCSR)** which must be submitted to DECC between 1 March and 15 April 2016. Up to 80% of payment is contingent on this report, it will include:
 - confirmation of time of use over the 2015/15 winter peak and the provision of operational verification evidence and receipts (where not already supplied, see below for installation verification).
- **Final Report** – to be completed by 1st December 2016. A remaining 20% of payment is contingent on this report. For deemed approaches this could include participation in evaluation activities (where participants are selected for evaluation). The earliest date for submission of the final report for deemed approaches is 8 weeks after the submission of the WCSR. See section 7 of the Participant Handbook for more detail.

For Deemed Savings if your time of use over the winter 2015/16 peak period varied from the expected time of use set out in your Calculator at the time of the auction you will need to re-complete the relevant deemed spreadsheet(s) calculators with the updated time of use to calculate the savings achieved from your project. If there were no changes in time of use you must confirm that the operating hours were as set out in your original submission in this yellow box on the 'Winter Peak use' tab of the main M&V template. Your payment will be based on the confirmed time of use information you provide. As with all M&V approaches where time of use changes result in a reduction in the average capacity saving achieved over the winter peak period this will result in reduced payments.

1.5.3. Audits

For evidence requirements relating to Audits see section 1.6. Site inspections

1.6. Site inspections

DECC, or an independent third party appointed by DECC may conduct a site inspection, at DECC's expense, of the site or sites named in your EDR Pilot Bid at any point during the year following signature of the Grant Offer Letter if you are successful in the auction.

The site inspection may be conducted at any time and will be used to check that data in your application (for both existing and proposed measures) is accurate.

The site inspection could consist of, but is not limited to, the following activities:

- Site visits with access given to any areas related to your bid application
- Requirement to submit documentation – e.g. floorplans to confirm floor area for Heating Controls calculators
- Requirement to allow installation of a meter, at DECC's expense

You should also retain evidence of the removal of the equipment being replaced, which you may be required to present on request, in the case of a random audit:

- Suitable evidence of which equipment has actually been removed, comprising photographs of the equipment in situ, and having been removed or replaced.

- Suitable evidence showing the destination of the removed equipment, which may include:
 - If sent to waste: waste transfer notes
 - If sold on: receipt of sale
 - If other: a signed declaration

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URN 14D/279