

ECO3: Deemed Scores Survey¹

- Questions 1-9 and the measure POPT section (found at the bottom of page 1) are mandatory. Questions 10-19 must be completed for the relevant measure type, and may be completed by a different operative at survey or post-installation stage.
- **Annex 1 should be completed as a minimum for measures where the POPT is less than 67%.**
- **If you wish to challenge a monitoring fail you will need to provide the exact POPT and your calculations.**
- Additional pages should be appended if there is not enough space in the fields provided.
- All photographic evidence in relation to a measure must be appropriate and in line with GDPR² and Data Protection Act 2018 requirements.

Question	Response					
1. Date of survey:						
2. Assessor/Operative:	Name: Company name: Tel: Email:					
3. Name of customer:						
4. Address of installation:						
5. Post code:						
6. Property type:	House	Bungalow	Flat	Maisonette	Single park home	Double park home
<i>If House/bungalow:</i>	<i>Detached</i>	<i>Semi</i>	<i>Mid terrace</i>		<i>End terrace</i>	
<i>If Flat/maisonette:</i>	<i>≤2 external walls</i>		<i>≥3 external walls</i>			
7. Bedrooms:	1	2	3	4	5	6+
8. Tenure	Owner occupier		Private tenant		Social housing tenant	
9. What is the pre-main heating source³?						
Gas boiler	Electric storage heaters	Oil boiler	LPG boiler	Solid fossil fuel boiler	Electric boiler	
Gas room heaters	Solid fuel room heaters	Electric room heaters	Gas fire with back boiler	Gas back boiler to radiators		
If other, specify the heating source and what deemed scores proxy is being used?						

¹ Please note you may be required to provide photographic evidence alongside this document. Photographic evidence in relation to a measure must be appropriate and in line with GDPR and Data Protection Act 2018 requirements.

² The General Data Protection Regulation (Regulation EU 2016/679).

³ For heating measures, this should be the heating source that you are replacing.

Question		Response				
Please circle relevant POPT for measure/s being installed (where any measure is <67% complete annex 1)						
Cavity Wall Insulation <input type="checkbox"/> 0.027 <input type="checkbox"/> 0.033 <input type="checkbox"/> 0.04 <input type="checkbox"/> Unknown	<67%	≥67%	Loft Insulation <input type="checkbox"/> ≤100mm <input type="checkbox"/> >100mm	<67%	≥67%	
Cavity with partial-fill insulation	<67%	≥67%	Heating Controls (including smart thermostats)	100%	N/A	
Boiler <input type="checkbox"/> Broken <input type="checkbox"/> Upgrade <input type="checkbox"/> Repair	<67%	≥67%	Electric Storage Heaters Fan <input type="checkbox"/> Broken <input type="checkbox"/> Upgrade <input type="checkbox"/> Repair	<67%	≥67%	
Electric Storage Heaters HHR <input type="checkbox"/> Broken <input type="checkbox"/> Upgrade <input type="checkbox"/> Repair	<67%	≥67%	External Wall Insulation	<67%	≥67%	
First Time Central Heating ⁴	100%	N/A	Room-in-roof Insulation <i>Residual area insulated⁵?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<67%	≥67%	
Internal Wall Insulation	<67%	≥67%	Floor insulation	<input type="checkbox"/> Solid	<67%	≥67%
				<input type="checkbox"/> Suspended	<67%	≥67%
Flat Roof Insulation	<67%	≥67%	Draught Proofing	<67%	≥67%	
Party Cavity Wall Insulation	<67%	≥67%	Other (Please specify)	<67%	≥67%	

Solar PV measures only ⁶					
kWp		Inclination		Orientation	
OI Factor ⁷		%		POPT ⁷	%

⁴ Please complete annex 3 to confirm the FTCH pre-conditions have been met

⁵ Tick 'Yes' if the Residual area is required to be insulated. Tick 'No' if the residual area is already insulated. Tick 'N/A' if there is no residual area present.

⁶ PV can only be installed if the main heat source is electric.

⁷ Please see annex 2 for instructions on calculating the orientation and inclination factor (OI) and POPT.

Heating measures only					
10. Main wall construction type		<input type="checkbox"/> ≥ 50% cavity wall		<input type="checkbox"/> ≥ 50% solid wall	
11. Are there a full set of functioning pre-existing heating controls?		<input type="checkbox"/> Yes		<input type="checkbox"/> No	
		If applicable, please record fault(s) _____ _____			
12. What working heating controls currently exist? (Tick all that apply)					
<input type="checkbox"/> Room Thermostat		<input type="checkbox"/> TRV			
<input type="checkbox"/> Programmer		Please record the existing number of radiators _____			
<input type="checkbox"/> Smart Thermostat		Please record the existing number of TRV's _____			
13. What heating measure(s) is or are being installed? (Tick all that apply)					
<input type="checkbox"/> Broken boiler repair (no pre-existing heating controls)		<input type="checkbox"/> Broken boiler repair (pre-existing heating controls)			
<input type="checkbox"/> Broken boiler replace (no pre-existing heating controls)		<input type="checkbox"/> Broken boiler replace (pre-existing heating controls)			
<input type="checkbox"/> Inefficient/broken boiler (Please specify accompanying insulation measure below) _____					
<input type="checkbox"/> Heating controls (including smart thermostat)		<input type="checkbox"/> First time central heating			
<input type="checkbox"/> Weather compensation		<input type="checkbox"/> Load compensation			
Pre-existing ESH: (please record number)	Slimline ⁸		Fan assisted		High heat retention
Number of ESH being installed: (please record number)			Broken Fan assisted		Broken High heat retention
			Upgrade Fan assisted		Upgrade High heat retention
Inefficient/broken ESH (Please specify accompanying insulation measure below) _____			Fan assisted: _____	High heat retention: _____	
ESH repair (please record number)			Fan assisted		High heat retention
Boiler/FTCH post-heating fuel	<input type="checkbox"/> Gas <input type="checkbox"/> LPG <input type="checkbox"/> DHS <input type="checkbox"/> ASHP <input type="checkbox"/> GSHP <input type="checkbox"/> Biomass <input type="checkbox"/> Oil ⁹				

⁸ If unable to categorise the pre-existing ESH, if the responsiveness is <0.2, please record as 'slimline'.

⁹ Oil boilers can only be installed where a broken boiler is being replaced.

External / Internal wall insulation measures and/or Solid wall alternative measures	
14. Approximate construction year or age band, & reasoning:	
15. Please state predominate solid wall construction type e.g solid brick, timber frame or system build ¹⁰ :	
16. What percentage of total wall area does this wall type consist of?	%

Cavity wall insulation measures	
17. Approximate construction year or age band, & reasoning:	
18. Are you extracting any failed cavity wall insulation?	Yes ¹¹ / No / N/A
19. Are the walls already partially insulated? ¹²	Yes / No / Unknown

¹⁰ Although most system build properties meet the definition of solid wall, some have external walls of a standard cavity construction and require a cavity wall insulation measure. The construction type of the external walls of a system build property should therefore be assessed prior to insulating the property.

¹¹ A report from a chartered surveyor or other suitably qualified professional will be required to validate the failed cavity wall material and evidence provided that no existing guarantee is in place

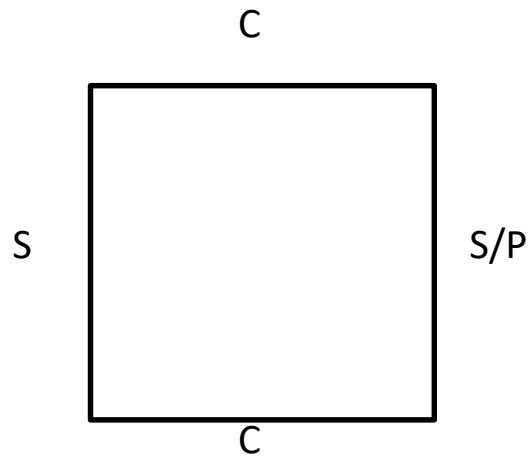
¹² If the pre-existing insulation meets relevant standards, any additional insulation will not be an eligible CWI measure.

Draw a basic sketch plan on the next page showing the rooms and walls

Basic sketch plan instructions for all measure types	
<p>Room Key¹³: BR# = Bedrooms; LR = Living Room; K = Kitchen; D = Dining Room; BTH = Bathroom.</p> <p>Wall Type key: _____ Cavity/non cavity*; Adjacent to unheated space/corridor <u>XXXXX</u> Doors should only be included where the measure being scored is a high performance external door and windows should only be included where the measure is window glazing.</p>	
Sketch plan instructions by measure type	
Heating Measures	Roof, wall and floor measures
<p>HS# = heating system/boiler (HS1 = main heating source)</p> <p>RAD = Radiator with no existing TRV</p> <p>RADT = Radiator with existing TRV</p> <p>RS = Room stat</p> <p>ST = Smart thermostat</p> <p>RH = Room heater</p> <p>ESH = Storage heater</p> <p>UFH = Under floor heating</p> <p>≥67% POPT: For boiler ≥67% POPT or FTCH, please complete a basic sketch including locations of heat emitters (no full dimensions). If multiple boilers are located in a property, please sketch location of these.</p> <p><67% POPT: For heating jobs where <67% POPT is being claimed, and for all ESH jobs, please show the heating sources, heat emitters such as radiators or storage heater locations using the key above.</p> <p>Provide full dimensions to the plan so that the POPT calculations can be clearly calculated.</p>	<p>≥67% POPT: For measures ≥67% POPT, please complete a basic sketch (no full dimensions) showing any different roof types using the following key:</p> <p>PR = Pitched roof</p> <p>FR = Flat roof</p> <p>RIR = Room in roof</p> <p>RES = RIRI Residual Loft Area</p> <p>UFI = Under floor insulation (specify solid or suspended)</p> <p>The wall type should be completed using the wall type key and sketch instructions.</p> <p><67% POPT: For roof and floor insulation jobs where <67% POPT is being claimed, if known, please add details of different types of wall or roof.</p> <p>Provide full dimensions to the plan so that the POPT calculations can be clearly calculated. This should include wall height for wall insulation measures.</p>

¹³ For multi storey premises, please record floor position, ie basement, ground floor, room-in-roof adjacent to the relevant sketch.

*Where the wall types is 100% cavity or 100% non-cavity, e.g solid, timber or system build, please indicate this using the tick box on top of the floor plan overleaf. Where the wall type is mixed, please tick the relevant boxes on the floor plan and clearly indicate the construction of each wall by adding C for cavity or S for non-cavity. Please also indicate where a party wall is present using the letter P alongside the wall type. Simple example provided. For multi storey premises, please record floor position, ie basement, ground floor, room-in-roof adjacent to the relevant sketch.



ANNEX 1 – POPT Calculations (mandatory where POPT is less than 67%)

Please enter the exact POPT to the nearest whole number.

Heating measures only										
Heating measure POPT ¹⁴								%		
Roof insulation measures only										
Enter areas with a different roof type (or where a different roof insulation measure/depth is being installed) as extensions. For RIRI, the total residual loft area should be included in the RIR area recorded below. For further information on scoring a RIRI measure please see chapter 6 of ECO3 Guidance .										
Property section (main loft, extension etc)	Roof type Flat/pitched /RIR	Roof area (M ²)	M ² and type of insulation to be installed ¹⁵							
			≤ 100mm		> 100mm		FRI		RIRI	
			≤ 100mm		> 100mm		FRI		RIRI	
			≤ 100mm		> 100mm		FRI		RIRI	
			≤ 100mm		> 100mm		FRI		RIRI	
			≤ 100mm		> 100mm		FRI		RIRI	
			≤ 100mm		> 100mm		FRI		RIRI	
Total roof area¹⁶		A	≤ 100mm	B	> 100mm	C	FRI	D	RIRI	E
≤ 100mm POPT	B/A= %		FRI POPT					D/A= %		
> 100mm POPT	C/A= %		Percentage of RIRI measure installed ¹⁷					F %		
		RIRI POPT					(E x F)/A= %			

¹⁴ Heating calculations should be retained to support any POPT calculations.¹⁵ For RIRI, 'E' refers to the floor area of the RIR + the residual area, not the amount of insulation installed. The elements of the RIR that have been insulated should be recorded in the RIRI checklist to calculate the POMI.¹⁶ For RIRI measures, the total roof area is the footprint area and not all the elements of the RIRI measure.¹⁷ For RIRI, percentage of the measure installed should be calculated in the RIRI checklist and recorded here.

IWI / EWI / CWI measures only						
Enter each different type of wall area as an extension. Wall area must include all <u>heat loss wall areas</u> (including areas already insulated and areas that cannot be insulated).						
Property section (eg, main property, extension, front walls etc)	Wall construction E.g. Cavity / cob / solid stone / solid brick / system / timber / park home	Wall area M ² (excl windows and doors)	M ² of insulation to be installed			
			CWI		IWI/EWI	
			CWI		IWI/EWI	
			CWI		IWI/EWI	
			CWI		IWI/EWI	
			CWI		IWI/EWI	
Total wall areas		A	CWI	B	IWI/EWI	C
		Total wall areas		IWI/EWI (type 2)		D
CWI POPT	B/A=	%	IWI/EWI POPT (type 2)		D/A=	%
IWI/EWI POPT	C/A=	%				
PWI measures only						
Property section (eg, main property, extension, front walls etc)	Wall construction e.g. cavity	Wall area m ² (excl doors)	M ² of insulation to be installed			
PWI POPT	B / A =	%	Total wall areas		A	B

Solid Floor insulation measures only			
Property section (main property, extension etc)	Floor construction e.g. solid concrete	Area M²	M² of insulation to be installed
Solid Floor Insulation POPT	B/A= %	Total floor area	B
		A	
Under Floor insulation measures only			
Property section (main property, extension etc)	Floor construction e.g. suspended timber	Area M²	M² of insulation to be installed
Under Floor Insulation POPT	B/A= %	Total floor area	B
		A	

ANNEX 2 – Solar PV Orientation/Inclination factor and POPT Calculation

		Orientation																							
		North		North West			West			South West			South			South East			East		North East			North	
		-180°	-165°	-150°	-135°	-120°	-105°	-90°	-75°	-60°	-45°	-30°	-15°	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°
Inclination	90°	[Color grid for 90° inclination]																							
	80°	[Color grid for 80° inclination]																							
	70°	[Color grid for 70° inclination]																							
	60°	[Color grid for 60° inclination]																							
	50°	[Color grid for 50° inclination]																							
	45°	[Color grid for 45° inclination]																							
	40°	[Color grid for 40° inclination]																							
	35°	[Color grid for 35° inclination]																							
	30°	[Color grid for 30° inclination]																							
	20°	[Color grid for 20° inclination]																							
	0°	[Color grid for 0° inclination]																							

Key:	
Band colour	OI factor (%)
[Red]	35
[Orange]	55
[Yellow]	74
[Light Green]	86
[Dark Green]	93
[Blue]	100

POPT for Solar PV is calculated using the formula below:

$$\text{Solar PV POPT} = \text{Installed Capacity} / 2.5 \text{ (kWp)} \times \text{OI Factor (\%)}$$

Where:

- *Installed capacity* is the capacity of the system installed in kWp.
- *OI Factor* is the average % energy yield or power generation as determined using Table 24 of the ECO3 Delivery Guidance.

As the average treatable area approach does not apply, the score to be notified is calculated simply by multiplying the published score by POPT.

Where a split array is installed, the POPT for each array should be calculated separately, and summed to give the total POPT.

Annex 3 – FTCH Pre-conditions

FTCH cannot be installed into an uninsulated premises¹⁸. An uninsulated premises is one which:

- Includes the top floor of the building in which they are located and
 - a. Does not have flat roof, loft, rafter, or room-in-roof insulation; and
 - b. Are premises at which flat roof, loft, rafter, or room-in-roof insulation can be installed; or
- Has exterior facing cavity walls which:
 - a. Can be insulated; and
 - b. Are not insulated.

The following questions must be completed for FTCH measures.

Question	Response
1. Does the property have uninsulated cavity walls?	<input type="checkbox"/> Yes, provide evidence that CWI cannot be installed. If the reasons are technical, please complete the technical report form. <input type="checkbox"/> No, go to 2.
2. Where the property includes the top floor of a building, does that property have any area of uninsulated roof (including loft, rafters or flat roof area) ?	<input type="checkbox"/> Yes, provide evidence that roof insulation cannot be installed <input type="checkbox"/> No

¹⁸ Article 8 of the ECO3 The Electricity and Gas (Energy Company Obligation) (Amendment) Order 2019