

Energy Company Obligation (ECO4) Pre-Installation Heating Checklist

Introduction

The purpose of this form is to provide assurance that heating measures installed meet ECO4 requirements. It assesses a home's pre-main heat source and status with regard to insulation pre-conditions. It provides partial guidance on the heating measures that may be eligible in different circumstances but must be read in conjunction with the ECO4 Delivery Guidance.

Suppliers should ensure operatives complete this checklist and retain the completed checklist on their systems for all heating measures in ECO4. This checklist should also be used when assessing a non-boiler central heating system and/or installing a new one (such as air to air heat pumps). This checklist also covers projects where a district heating connection (DHC) is to be installed or repaired. Suppliers must be able to provide a copy of a completed checklist to us on request.

This checklist does not provide any detailed information on the requirements of ECO. Further information can be found in our guidance document, Energy Company Obligation (ECO4) Guidance: Delivery, available on our website¹

Accuracy of the checklist

It is important to note that your decision to repair or replace a heat source on the basis that you consider it to be inefficient or broken down and unable to be economically repaired, does not necessarily mean that we will the same conclusion, particularly if we consider that an assessment has been incorrectly carried out. For this reason, suppliers should ensure that the checklist is completed accurately by the relevant operative(s).

When filling in the Pre-Installation Heating Checklist assessment details should not be copied from other Pre-Installation Heating Checklist, i.e. photocopying or copying and pasting should not be used to complete any part of this form.

If the information on this checklist is found to be false, Ofgem will investigate the case and may reject the associated measures.

¹ Energy Company Obligation (ECO) | Ofgem

Operative competency

Measures referenced in PAS 2030:2019 or MCS must be installed by, or under the responsibility of, a person who is registered with TrustMark for the purposes of that measure. These requirements are evidenced to Ofgem by a Certificate of Lodgement (CoL) awarded by TrustMark for measures.

Data Light Measures (DLMs) and Innovation Measures (IMs) which are not referenced in PAS 2030:2019 and do not fall under MCS, must be certified by a person accredited to ISO / IEC 17065:2012.

For DHC measures, except for DHCs which are the installation in the home of a GSHP connected to a shared ground loop, suitable qualifications for installers may be a Level 2 or 3 NVQ in gas, plumbing or mechanical engineering. We recommend CIBSE Heat Networks: Code of practice for the UK is followed during all phases of the DHC project where relevant. DHCs which are the installation of a shared ground loop GSHP should be installed by, or under the responsibility of, a person who is registered with TrustMark for the purposes of that measure.

For boilers not referred to in PAS, and for all boiler repairs, the assessment and repair/replacement must be carried out by operatives who meet industry competency standards for that particular fuel type.

A pre-assessment may be carried out by an assessor who may also fill out sections of the checklist. However, this assessment must be checked and its accuracy confirmed by the operative prior to carrying out the heating measure.

Format of the checklist

Suppliers may adapt the format of the checklist to match their own systems, as long as the content is not changed. Suppliers should submit adapted checklists to us before use for confirmation that the content is acceptable

Completing the checklist

	Guidance
Section A	Operative and assessment details . This section captures the details of the operative
	carrying out the heating measure, core details of the premises, and the details of the
	assessor carrying out the pre-assessment of the heating source (if different to the
	operative). It may be completed by the operative or assessor. All questions are mandatory
	and must be filled for all heating measures.
Section B	Central heating systems (incl district heating connections). The section must be
	completed if the home contains a pre-existing central heating system. The section may be
	completed by the operative or assessor who has inspected the heating system on-site.
Section C	Electric storage heaters. This section must be completed if the home contains pre-
	existing electric storage heaters. The section may be completed by the operative or
	assessor who has inspected the heating system on-site.
Section D	Room heaters or no fixed heating. This section must be completed if the home
	contains pre-existing room heaters or has no fixed heating. The section may be completed
	by the operative or assessor who has inspected the heating system on-site.
Section E	District heating connections and repairs. This section is to be completed by the
	operative who has inspected the heating system on-site.
Section F	Insulation pre-conditions and off-gas hierarchy. This section collects information to
	show how insulation pre-conditions are met and, for off-gas premises, how the heating
	hierarchy has been applied. The section is mandatory and must be completed for all
	heating sources assessed. The section contains a declaration which must be signed by the
	Retrofit Coordinator. ²
Section G	Customer and operative Declarations . These must be signed by the occupier or owner
	of the premises, and the operative who carried out the measure. In signing, the operative
	confirms that the information provided in sections A, B, C, D, E, G and H is correct.
Section H	Repair/replacement tables. May be completed by a person who has not inspected the
	heating source, but the operative who has completed the assessment must sign this form
	to confirm that Section G has been completed accurately. If agreed with the supplier, the
	quote may be provided in a different format. Please attached all relevant documentation to
	this form. This section may be completed by a different operative at survey or post-
	installation stage.
Section I	Repair cost threshold table and average repair table. This section is designed to
	identify when a boiler or electric storage heater cannot be economically repaired. The
	tables show information such as maximum repair cost for boilers and electric storage
	heaters.

 $^{^{\}rm 2}$ If non-PAS measure the relevant DHC operative must complete this section.

A. Operative And Assessment Details

Α.	Operative and assessment deta	ils
1	Property Address:	
	(Building number/name,	
	Street name, Town, City,	
	County and postcode)	
2	Company name of operative	
	carrying out installation	
3	Operative name (as on the	
	accreditation record)	
4	Operative's accreditation	ECS card Gas safe MCS Certified
		Other
		Accreditation number:
5	Did premises have a gas meter on 1 April 2022?	Yes: premises No: heating measures are subject to the off-gas
		is on-gas hierarchy (complete E2)
6	Is the assessment of	
	repair/replacement completed	Yes No (Enter details below)
	by the same operative?	
7	Name, accreditation and	Assessor/Operative Full name:
	signature (Complete this	
	section only if assessment	Assessor/Operative Accreditation and number:
	and the subsequent heating	
	measure installation or repair	Assessor/Operative signature:
	isn't carried out by the same	
	operative)	
8	Date:	
		//

B. Central Heating Systems³

B Initial Details of assessment

A boiler must meet certain criteria to determine whether it is broken down and can be replaced, repaired or upgraded. The first step is to assess whether a boiler is `non-condensing' or `broken down'. Please complete below.

1	Brand and model	
2	Model qualifier	
3	Fuel type	
4	Is the boiler non-condensing, or does it have an efficiency no better than a non- condensing boiler?	 Yes (can be replaced as an upgrade - complete B4a, then the remaining questions in B are not required.) No
4a	List the steps to reach the conclusion the boiler is non- condensing or has an efficiency no better than a non-condensing boiler.	
5	Is the boiler broken down? ⁴	Yes No (can only be replaced by DHC or upgraded to renewables. Remaining questions in section B are not required.)
6	Age of boiler / Year of original commissioning (if available) ⁵	
7	How did you establish the original age of boiler / year of commissioning? (Tick	 Boiler name plate Installation Certificate Warranty documentation
8	relevant boxes and provide pictorial evidence) ⁶ Serial number of boiler	Other

³ For renewable heating system repairs and replacements, operatives can use the below form to help determine whether or not the system is economically repairable. The funder must be satisfied that enough evidence has been presented to support the determination being made

⁴ A boiler is considered broken down if, when connected to electrical and fuel supplies, it does not respond appropriately to any demand for heat as required by the central heating system or domestic boiler system.

⁵ When assessing the boiler age, the estimate d age should be rounded down e.g. a boiler that is 4.7 years old should be assessed as a 4-year-old boiler.

⁶ The boiler age can be determined by assessing the following information: the boiler name plate, the installation certificates and warranty documentation. Customers' declaration about boiler age are not acceptable/valid.

В	Initial Details of assessmen	t
9	Are all parts required for the repair available? (eg if parts are available at a reasonable cost and within a reasonable timeframe or if the repair does not require any parts tick 'Yes)	Yes No, please enter reasons
10	Is the actual cost of repair more than the actual cost of a replacement boiler? Complete cost table in section H to determine.	 Yes - boiler may be replaced. No Cost of repair: (Exc. VAT) £ Cost of replacement: (Exc. VAT) £
11	Is the actual cost of repair less than the maximum cost of repair as identified in the 'Economic Repair Cost Comparison Tables'? ⁷	 Yes The boiler should be repaired. Please use Section G to provide details of repair undertaken. No The boiler should be replaced

⁷ See Boiler repair cost comparison table in section I.

12. Broken boiler only:

Once you have identified whether the boiler is 'broken down', you must identify all the possible faults that have caused the boiler to be broken down.

Boiler Fault List

Select the appropriate fault(s) that resulted in the boiler being broken down or not functioning efficiently and **complete all sections of this question**. (Note: this list is not exhaustive. Record any other faults not included in this list under 'Other').

Corrosion or fouling of the boiler heat exchanger	
No boiler ignition	
Unstable firing	
Any other mechanical or electrical fault	
Results of the flue gas analyser combustion outside boiler manufacturer tolerance	
Boiler and system sludge (Sludge alone may not be sufficient grounds to be considered broken in the ECO4 scheme)	
Poor flue condition	
Primary flow rate unsatisfactory or outside boiler manufacturer tolerance	
Primary flow temperature unsatisfactory or outside boiler manufacturer tolerance	
For combination boilers only: Unsatisfactory hot water flow rate or temperature which are outside of the manufacturer's specification/tolerance	
Boiler external corrosion	
Boiler installation is Immediately Dangerous (ID) or At Risk (AR) (Gas Safe definition)	
Other: (Provide a detailed description)	

Please write how you identified the failure and any associated symptoms. This may include any tests or checks carried out on the boiler to identify the symptoms. (This information will be used during audit to determine whether the boiler was correctly assessed. Therefore, provide as much information as possible.)

C. Electric Storage Heaters

С.	Details of assessment (Use form as many times as necessary for the number of				
	ESH in the property)				
1	Total number of ESH/s		. □2	□3 □4	□ Other
	in the premises		. <u> </u>		
2	Enter the relevant				
	number of ESH been		ESH	—	ESH
	assessed eg ESH _1_				
3	Brand and Model				
4	ESH serial number (or				
-	any other unique				
	identification detail of				
	the ESH)				
5	ESH Responsiveness				
	· .	eness of	0.2 or le	ess, that ESH is	inefficient and can only be
u	ipgraded ⁸ or, if home meet	s FTCH c	riteria, r	eplaced with FT	CH. Remaining questions in
	section C can be skipped for an inefficient ESH.			nt ESH.	
6	Is the ESH broken	☐ Yes			☐ Yes
	down?				
				y be upgraded s or DHC.	No - can only be upgraded by renewables or DHC.
				iestions in be skipped.	Remaining questions in section C can be skipped.
		5000		be skipped.	section e can be skipped.
Once	e you have identified if the	ESH is `t	oroken d	own', you must	identify all the faults that have
	Ca	aused the	e ESH to	be broken dow	n.
7	ESH Fault List - tick if	ESH	ESH	Provide details	s of how you identified the
	fault is applicable (Note:			faults (This inf	ormation will be used during
	this list is not			audit to deterr	nine whether the ESH has
	exhaustive, please			been correctly	assessed. Therefore, please
	detail any additional			provide as mu	ch information as possible.)
	faults in 'Other')				
	Example: Tick if fault	\checkmark		Write a detaile	ed explanation
	applicable				

⁸ Subject to off-gas hierarchy in relevant homes (chapter 5 of the ECO4 Delivery Guidance)

С.	Details of assessment	(Use for	m as m	any times as neces	sary for the number of
	ESH in the property)				
	ESH Fault List - tick if				
	fault is applicable				
	(Note: this list is not				
	exhaustive, please				
	detail any additional				
	faults in 'Other')				
	Damaged thermal fuse				
	or input cut out				
	Failure of storage				
	element(s)				
	clement(3)				
	Faulty charge control				
	, 5				
	Faulty output control				

C.	Details of assessment (ESH in the property)	(Use for	m as ma	any times as n	ecessary	for the number of	
	Faulty electronic						
	controller						
	Controller						
	Faulty or broken fan						
	Other (Please provide						
	detailed description)						
Con	nplete to determine whe	ether the	e brokei	n down ESH ca	n be econ	omically repaired	
			ESH _			ESH	
8	Age of ESH in years?						
9	State how you have						
	established the age of						
	the ESH?						

С.	Details of assessment (Use form as many times as necessary for the number of			
	ESH in the property)			
10	Does the ESH contain asbestos? (A broken down ESH with asbestos 'cannot be economically repaired')	 Yes (If yes ESH can't be economically repaired) No 	 Yes (If yes ESH can't be economically repaired) No 	
11	Are all parts required for the repair available? (if parts are available at a reasonable cost and within a reasonable timeframe ⁹ or the repair does not require any parts tick Yes)	 Yes No - ESH can be replaced. Enter details of unavailable parts: 	 Yes No - ESH can be replaced. Enter details of unavailable parts: 	
12	Is the actual cost of repair more than the actual cost of a replacement ESH? Fill in cost tables in section H.	Cost of repair: (Exc. VAT) £ Cost of replacement: (Exc. VAT) £ Yes - ESH can be replaced by HHR ESH, a DHC, upgraded to renewables or, where the home meets the FTCH criteria, FTCH. No	Cost of repair: (Exc. VAT) £ Cost of replacement: (Exc. VAT) £ Yes - ESH can be replaced by HHR ESH, a DHC, upgraded to renewables or, where the home meets the FTCH criteria, FTCH. No	
13	Is the actual cost of repair less than the maximum cost of repair as identified in the 'Economic Repair Cost Comparison Table'? ¹⁰	 Maximum cost of repair as identified in the 'Economic Repair Cost Comparison Table': (Exc. VAT) £ Yes - ESH can be repaired, replaced by DHC or upgraded to renewables. No - ESH can be replaced by HHR ESH, a DHC, upgraded to renewables or, where the home meets the FTCH criteria, FTCH. 	 Maximum cost of repair as identified in the 'Economic Repair Cost Comparison Table': (Exc. VAT) £ Yes - ESH can be repaired, replaced by DHC or upgraded to renewables. No - ESH can be replaced by HHR ESH, a DHC, upgraded to renewables or, where the home meets the FTCH criteria, FTCH. 	

⁹ A screenshot should be retained to confirm parts were not available within a reasonable timeframe.

 $^{^{\}rm 10}$ See Electric Storage repair cost comparison table in section I.

D. Room Heaters and No Heating

D.	Existing heating source d	etails	
1	Existing pre main	Bottled LPG Room Heaters	
	heating source	🗌 Solid Fossil Room Heaters	
		\Box Gas Fire with Back Boiler ¹¹	
		🗌 Gas Room Heaters	
		Electric Room Heaters including direct acting room heaters	
		No heating present	
		Other	
A F	A First Time Central Heating measure may be installed if a property		

- does not have, and has not previously had, a wet central heating system, and
- at no point since 1 April 2022 contained an efficient ESH (SAP responsiveness rating of more than 0.2) that is not broken down or if it is broken down can be economically repaired

¹¹ Where the premises contains a back boiler, FTCH may only be installed if the back boiler does not supply a central heating system.

E. District Heating Connection (DHC) Measures

Ε.	Existing heating source details where existing heat source is a DHS		
1	If the pre-main heat	\Box An efficient DHS ¹² (Please detail)	
	source is a DHS, is the	\Box An inefficient DHS ¹³ (Please detail)	
	existing DHC connected to:	□ N/A	
2	If the pre-main heat	Broken, and economically repairable (Please detail)	
	source is a DHS, is the	Broken, and not economically repairable (Please detail)	
	DHC:	□ Working	
		□ N/A	

Ε.	Details for DHC repairs (only	complete for repairs)		
A D	A DHC must meet certain criteria to determine whether it is broken down and can be repaired.			
1	Has the off-gas heating	□ Yes □ No □ N/A		
	hierarchy been followed?			
3	To evidence that the DHC is			
	broken, identify all faults.			
	Please write how you identified			
	the failure and any associated			
	symptoms. This may include			
	any tests or checks carried out			
	to identify the symptoms.			
	(This information will be used			
	during audit to determine			
	whether the DHC was correctly			
	assessed. Therefore, provide			
	as much information as			
	possible.)			

 $^{^{\}rm 12}$ If yes, and economically repairable, a new DHC would not be eligible under ECO4.

¹³ If yes, and if the premises is on-gas, then a DHC repair would not be eligible.

F. Insulation Pre-Conditions and Off-Gas Hierarchy

1 Insulation Pre-conditions

Under ECO4, all heating measures and solar PV are subject to insulation pre-conditions.

Band E, F and G homes, and band D homes receiving DHC or FTCH: pre-conditions are met if either:

- for any single relevant construction element, b) applies, or
- for all relevant construction elements, a), c) or d) applies

Band D homes except those receiving DHC or FTCH: pre-conditions are met if, for all relevant construction elements, a), b), c), or d) applies.

Const	ruction elements for homes other than mobile homes	SAP bands relevant to:
Exterior Cavity	a) Insulated to current building regulation standards before project started	All
Wall:	 b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	
Room In Roof:	 a) Insulated to current building regulation standards before project started b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	All
Flat Roof:	 a) Insulated to current building regulation standards before project started b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	All
Pitched Roof:	 a) Insulated to current building regulation standards before project started b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	All

Loft:	 a) Insulated to current building regulation standards before project started b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	Band G, F and E. Band D if installing DHC or FTCH
External Solid Wall:	 a) Insulated to current building regulation standards before project started b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	Band D except DHC and FTCH
Heat Loss Floor:	 a) Insulated to current building regulation standards before project started b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	Band D except DHC and FTCH
Party Cavity Wall:	 a) Insulated to current building regulation standards before project started b) Installed as part of project c) Could not be installed due to exemptions d) Construction element not present 	Band D except DHC and FTCH
	Construction elements for mobile homes	SAP bands relevant to:
Mobile home: wall, roof and floor	 a) Insulation equivalent to BS 3632:2015 before project started b) Installed as part of project c) Could not be installed due to exemptions 	All

Off-Gas Heating Hierarchy ¹⁴ (This section must be filled in for homes which did not have a gas meter on 1 April 2022 – question A.9)				
Are any heating measures in the off-gas heating Yes (Tick relevant boxes below)				
hierarchy above the heating measure being installed not possible to install or does an exemption apply? No, the measure being installed is from the first level of the off-gas hierarchy			e first level of the off-gas	
Not reasonably practicable (s of costs)	hown to be not techn	ically feasib	le and may result in increase	
	Please explain reaso	on for exem	ption.	
Exemption applies				
In relation to the installation biomass, the premises are no		generation (of heat wholly or partly from	
One or more improvement options evaluation reports in relation to the premises are held on the TrustMark Data Warehouse, and the measure is not amongst the measures recommended in the most recent improvement options evaluation report				
○ No improvement options evaluation report in relation to the premises is held on the TrustMark Data Warehouse; one or more EPC recommendation reports have been issued for the premises; and the measure is not amongst the measures recommended in the most recent EPC recommendation report				
3 Pre-Insulation and Off-Gas Hierarchy Declaration				
I hereby declare that to the best of my knowledge and belief that the information provided above is true and accurate.				
Retrofit Coordinator or				
DHC Operative signature and date:				

¹⁴ Please see chapter 5 of the ECO4 Delivery Guidance for information on the off-gas heating hierarchy. https://www.ofgem.gov.uk/publications/draft-energy-company-obligation-eco4-guidance-delivery-v01

G. Customer and Operative Declarations

Customer Declaration ¹⁵ (To be filled by the occupier or owner)				
Where the heating m	easure installed is a FTCH measure: I, the occu	upier or		
owner of the premise	s, declare that to the best of my knowledge th	at at no	_	
point prior to the inst	allation of the first-time central heating measu	re did the	Yes	
premises have a wet	central heating system and, at no point since 1	1 April	🗌 No	
2022, did the premise	es have a working, or broken but economically	repairable,		
efficient electric stora	ge heater(s).			
Occupier full name				
Occupier signature		Date:		
and date:		//	/	
Operative Declarati	ion (To be filled by the operative)			
Where the heating m	easure installed is a FTCH measure: I confirm	that there		
are no signs or docun	nentation that the property has had a wet cent	ral heating		
system at any point prior to the installation of the FTCH measure, nor that, in				
the period from 1 April 2022 until completion of the installation, the premises			□ No	
had a working, or broken but economically repairable, efficient electric storage				
heater(s).				
Where a boiler was installed, I confirm that it is connected to a functioning				
domestic central heating (and where applicable, hot water) system.			🗌 Yes	
I confirm that the information contained in sections A, B, C, D, E, G and H of				
this form is true and accurate. I acknowledge and understand that it is a				
criminal offence to knowingly make a false declaration and that the offence is				
punishable by a fine, imprisonment or both.				
Operative full name				
Operative signature Date:				

 $^{^{\}rm 15}$ For private rented or social housing, either the occupier or the landlord may sign the form.

H. Repair/Replacement Tables

Repair Quote			
Item	Cost		
Warranty cost			
Labour estimated for hours at £ per hour			
Total excluding VAT			
VAT 20%			
Total			

Replacement Quote			
Item	Cost		
Warranty cost			
Labour estimated for hours at £ per hour			
Total excluding VAT			
VAT 20%			
Total			

I. Repair Cost Threshold Table and Average Repair Table

Repair Cost Tables¹⁶

These tables provide guidance in determining when a mains gas or oil boiler cannot be economically repaired. Tables 1.1-3.2 show what the maximum repair costs are for boilers and ESH – the tables show the maximum repair costs for boilers and ESHs different types and ages. If the actual cost of repair is higher than the relevant maximum cost, it is considered more economical to replace rather than repair the heating system and as such it is judged that it cannot be economically repaired.

The maximum costs are derived from the type of heating, the estimated average installation cost of replacing the heating system, and its age. These costs have been developed in tandem with industry.

Table 4 shows representative repair costs for important boiler components to help installers come to an estimate of how much a given repair should cost – installers should keep in mind contingent factors in costs such as regional variations. These are intended as a guide to help installers come to a conclusion of how much they should be charging for a repair of common boiler parts.

There are examples of how to use these tables in this document. For broken LPG boilers, operatives should use the relevant mains gas table. For broken DHCs and renewable heating systems, operatives should use the oil combination boiler table. Note that the below tables take into consideration both the costs of the parts themselves and labour. Whilst we are unable to provide separate estimates of labour costs, most boiler repairs for relatively simple issues take 1-2 hours.

¹⁶ Note that all costs shown are exclusive of VAT.

i. Boiler Tables

Table 1.1 Maximum repair cost for <u>mains</u> gas combination boiler

Age of boiler	Cost
1	£3,492
2	£3,201.60
3	£2,910
4	£2,619.60
5	£2,328
6	£2,037.60
7	£1,746
8	£1,455.60
9	£1,164
10	£873.60
11	£582
12	£291.60
13+	£nil

Table 1.2 Maximum repair cost for <u>mains</u> gas regular boiler

Age of boiler	Cost
1	£1,992
2	£1,826.40
3	£1,660
4	£1,494
5	£1,328
6	£1,161.60
7	£996
8	£830.40
9	£664
10	£498
11	£332
12	£165.60
13+	£ nil

Table 2.1 Maximum repair cost for <u>oil</u> combination boiler

Age of boiler	Cost
1	£5,304
2	£4,862.40
3	£4,421
4	£3,979.20
5	£3,538
6	£3,096
7	£2,654
8	£2,212.80
9	£1,771
10	£1,329.60
11	£888
12	£446.40
13+	£nil

Table 2.2 Maximum repair cost for <u>oil</u> regular boiler				
Age of boiler	Cost			
1	£2,304			
2	£2,112			
3	£1,920			
4	£1,728			
5	£1,536			
6	£1,344			
7	£1,152			
8	£960			
9	£768			
10	£576			
11	£384			
12	£192			
13+	£ nil			

Example of how to use these tables:

Boiler type: Mains gas, Regular Age: 4 years

If boiler repair work costs over £1,494, this boiler can be replaced. If the boiler repair work costs less than £1,494, boiler repair should be carried out.

Age of	
boiler	
1	£1,992
2	£1,826.40
3	£1,660
4	£1,494
5	£1,328
6	£1,161.60
7	€996
8	£830.40
9	£664
10	£498
11	£332
12	£165.60
13+	£ nil

Average repair cost of boiler components					
Boiler part	Average cost	Boiler part	Average		
			cost		
Air pressure switch	£160	Diverter valve	£240		
Ignition	£140	Heat exchanger	£330		
Timer	£70	Pump	£200		
Thermocouple	£80	Pressure relief valve	£95		
Overheat thermostat	£95	Gas valve	£210		
Burner	£100	Printed circuit board	£240		
Automatic air vent	£90	Fan	£235		
Flue	£125	Expansion vessel	£230		

ii. Electric Storage Heater Tables

Table 3.1 Maximum repair cost for Integrated
storage + direct acting heater

Age of boiler	Cost
1-4	£552
5	£506.40
6	£460
7	£414
8	£368
9	£321.60
10	£276
11	£230.40
12	£184
13+	£138

Example of how to use this table:

ESH type: Fan storage heater Age: 6 years

If ESH repair work costs over £715, this ESH can be replaced. If the ESH repair work costs less than £715, ESH repair should be carried out.

Go through this process for each ESH being assessed in a given property.

Table 3.2 Maximum repair cost for fan storage/high heat retention storage heater

Age of boiler	Cost
1-4	£858
5	£787.20
6	£715
7	£643.20
8	£572
9	£500.40
10	£430
11	£357.60
12	£286
13	£214.80

Table 3.2 Maximum repair cost for fan
storage/high heat retention storage
heater

Age of boiler	Cost
1-4	£858
5	£787.20
6	£715
7	£643.20
8	£572
9	£500.40
10	£430
11	£357.60
12	£286
13	£214.80
13	£214.80