Energy Technology List
ECA SCHEME

CARBON TRUST

Product application checklist

Please complete in BLOCK CAPITALS

Solar Thermal Systems

Manufacturer/supplier name: .....

ETL licence number (if applicable): .....

Applicant's name: .....

Telephone number: .....

Product information

Product name: .....

Model number: .....

Please complete each section of this form based on your product's characteristics. Incomplete or incorrect data could affect the processing of your product application.

Each product application should be made on a separate form unless a product's design characteristics are common to all the products. In this instance a single application can be made for multiple products.

1.	Product testing and certification	No	Yes
Where type testing has been used to demonstrate product performance please ensure that the information supplied is sufficient to demonstrate the performance of all products for which applications are being made.			
1.1	**How was the product(s) performance tested?** *(Please select one).*		
	a) Tested in the manufacturer's in-house laboratory, in accordance with a registered Quality Management System (i.e. 'self-tested').	☐	☐
	b) Tested in a laboratory either in house or on-site, witnessed by an independent body (i.e. 'witnessed testing').	☐	☐
	c) Tested by an independent laboratory (i.e. 'independent testing').	☐	☐
	Please refer to Section 2 of ECA Guidance Note 5 "ECA Testing Programme: Energy Technology List (ETL) Product Testing Framework" for details of the requirements that must be satisfied for each of these product testing options.		
1.2	**Where product testing has been done in accordance with a registered Quality Management System, what is its registration number?**		
1.3	**Where product testing has been witnessed by an independent body, what was the name of the witness?** *(Please include contact details).*		

1.	Product testing and certification (continued)	No	Yes
1.4	**Where products have been tested by an independent laboratory:** a) What is the name of the independent laboratory? ..... b) What is the laboratory's registration number (where accredited)?		

2.	Product type	No	Yes
2.1	**What category of product are you applying for?** *(Please select one)*: a) Individual solar collectors for use in installer-assembled solar thermal systems. b) Complete, ready to install, fixed configuration, solar thermal systems.		☐ ☐
2.2	**Does the product use collectors that comply with the requirements of BS EN 12975-1:2006 *"Thermal solar systems and components. Solar collectors. Part 1: General requirements"?*** If yes, proceed to 3.2.	☐	☐
2.3	**Is the product sold as a complete, ready to install, fixed configuration, solar thermal system that complies with the requirements of BS EN 12976-1:2006 *"Thermal solar systems and components. Factory made systems. Part 1: General requirements"*.** *If no, please consult the criteria for details of eligible products.* *Note: BS EN 12976-1:2006 defines factory made systems as batch products with one trade name, sold as complete and ready-to-install kits, with fixed configurations. Systems of this category are considered as a single product and assessed as a whole.*	☐	☐

3.	Product features	No	Yes
3.1	**Please state which of the following parts the product incorporates, and the number where applicable:** a. Number of solar collectors? ..... b. Number of appropriately sized storage vessels? ..... c. Number of circulation pumps? ..... d. The pipework and valves forming the connection loop between the solar collector(s) and storage vessel(s), including any non-return valves, control valves, pressure relief valves, air bleed valves etc, as required for the effective operation of the product?	☐	☐
	e. Controls or sensors (and their associated power supplies) needed to: 1) Stop circulation when the yield is low.	☐	☐
	2) Ensure compliance with Health & Safety Executive (HSE) requirements.	☐	☐
	3) Operate a drain down or a frost protection strategy (where required).	☐	☐
3.2	**Please state if any of the following excluded parts are incorporated in the product:** a) The pipework from the storage vessel(s) to the point of use.	☐	☐
	b) Any auxiliary tanks used to provide back-up heating to the solar thermal system.	☐	☐
	c) Any cold water tanks and associated pipework used to replace the water being consumed at the point of use.	☐	☐
	d) Any reinforcement to roof or structure required to mount the solar thermal system. *If the product incorporates 'excluded' items it will only be eligible for inclusion on the ETL if they can be demonstrated to be essential for the product to deliver the required functionality.*	☐	☐

4.	Product performance	Fail	Pass	N/A*	No	Yes
4.1	**Reliability**					
	Has the product's reliability performance been tested in accordance with BS EN 12975-2:2006.				☐	☐
	Thermal Solar Systems and Components – Solar Collectors. Part 2: Testing requirements or BS EN 12976-2:2006 Thermal Solar Systems and Components – Factory made systems. Part 2: Testing requirements?					
	Please state the outcome of each test.					
	• Internal pressure (BS EN 12976-2:2006: pressure resistance).	☐	☐			
	• High temperature resistance (BS EN 12976-2:2006: over temperature protection).	☐	☐			
	• Exposure.	☐	☐	☐		
	• External thermal shock.	☐	☐			
	• Internal thermal shock.	☐	☐	☐		
	• Rain penetration.	☐	☐			
	• Freeze resistance.	☐	☐			
	• Mechanical load.	☐	☐			
	* The 'not applicable' status is valid only for complete systems under BS EN 12976.					
4.2	**Instantaneous efficiency**					
	a. What is the solar collectors' calculated instantaneous efficiency?					
	ETL products should have an instantaneous efficiency greater than 50% when tested at the operating conditions of $T^*m = 0.05$ (i.e. ambient temperature of 20°C, collector temperature 60ºC and solar radiation 800W/m^2), where T^*m is as defined in BS EN 12975-2:2006. The calculation for the instantaneous efficiency should be carried out in accordance with BS EN 12975-2:2006 Clause 6.1.4.					
	b. Please provide the following figures from the EN 12975 test report for the aperture of the collector:					
	i) Zero Loss Efficiency (η0a).					
	ii) Heat Loss Coefficient (a_{1a}) in W/m^{2}K.					
	iii) Temperature dependence of the heat loss coefficient (a_{2a}) in W/m^{2}K^2.					
	c. If the test report indicated that an Incident Angle Modifier has been applied, please include the following figures:					
	i) Incidence Angle Modifier Longitudinal ($K_{\theta L}$).					
	ii) Incidence Angle Modifier Transversal ($K_{\theta T}$).					

5. Summary of documents to be included

No	Yes

Please send ONE copy of each of the following documents:

If the relevant information in support of the questions above is contained within a larger document, please indicate the location of the relevant information. Note that all documentation submitted must directly refer to the model numbers for which you are making this application. Documentation should be added to your online application at https://etl.decc.gov.uk.

a. A technical sales brochure or leaflet for the product clearly summarising:

- i) The key features of the product (ideally including photographs of the product's exterior). ☐
- ii) The product's operation (i.e. in-built functionality) and intended applications (i.e. usage). ☐
- iii) Any product selection options (including optional extras, alternative configurations etc.). ☐

This documentation should contain sufficient detail to enable the assessor to confirm that the proposed entry on the Energy Technology Product List (ETPL) is correct, and uniquely represents a single product of fixed design (as defined by the rules of the ECA Scheme). If the model names contain any 'wildcards' in respect of cosmetic variations please check with ECA Questions that this is permitted before submitting your application.

b. A technical specification for the product, including:

- i) Details of the model numbers covered (including individual features of each model). ☐
- ii) The product's design ratings (electrical, mechanical, thermal, flow rates, energy use etc.). ☐
- iii) A description of how to install the product including connection/wiring diagrams. Where the product must be assembled, configured and/or commissioned on site before use, please include instructions. ☐

This documentation should contain sufficient detail to enable the assessor to confirm that each product entry on the Energy Technology Product List (ETPL) has the design features specified in the eligibility criteria for that category of product. Please indicate on the checklist where information on specific design features is located in the documentation.

c. Evidence that the product meets the performance criteria, including:

- i) Test reports showing product performance at the standard rating/test conditions. ☐
- ii) Details of the test procedures/standards used to determine product performance. ☐
- iii) A declaration certifying the accuracy of the test reports and confirming that:
  - The test facilities complied with the minimum specifications outlined in the test standard, and the required test conditions where applied during testing. ☐
  - All measurement equipment used in testing was calibrated by an accredited laboratory, or its calibration is otherwise traceable back to national standards. ☐
  - Appropriate quality assurance procedures have been used to verify or cross-check the accuracy and repeatability of the test procedures and test results. ☐

Please note that summary test reports will only be accepted, where the accuracy of the test reports has been certified by a recognised independent body, or where two detailed test reports have been submitted per product range and per laboratory used.

Please refer to Section 4 of ECA Guidance Note 5 "ECA Testing Programme: Energy Technology List (ETL) Product Testing Framework" for further guidance on the submission of test results, and minimum information requirements.

d. Evidence that a quality assurance system/procedures is/are in place to:

- i) Control the specification, design, manufacturing and testing of the products. ☐

e. Signed application checklist. ☐

Please note that all product documentation provided must be written in, or translated into, English.

6. Declaration

I confirm that the information given above is correct to the best of my knowledge and that I have read and agree to the terms and conditions governing the management of the Enhanced Capital Allowance Energy Technology List (ETL).
A copy of the terms and conditions can be found at https://www.gov.uk/guidance/energy-technology-list

Signature: ..... Date: .....

For more information:

Web:
https://www.gov.uk/guidance/energy-technology-list

Phone:
0300 3300657

Email:
ECAQuestions@carbontrust.co.uk

Post:
Energy TL Coordinator,
ICF,
6th floor,
Watling House,
33 Cannon Street,
London, EC4M 5SB

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