



Energy Technology List

Product application checklist

Please complete in BLOCK CAPITALS

Wastewater Heat Recovery Systems (Instantaneous)

Manufacturer/supplier name:

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 applied to demonstrate product performance ensure that the information supplied is sufficient to demonstrate the performance of all the products for which applications are being made.

1.1 Has the product been tested in accordance with the test procedures and tolerances in the following standards? (Please select relevant standards)

NTA 8800:2019-06 nl

CSTB Protocole RECADO 2015

CSA B55. 1-15

IAPMO IGC 347-2017

(Note: The standard rating conditions are as follows:

- an average flow rate volume of between 8 and 11 litres per minute
- a room temperature of 20°C
- an incoming mains cold water temperature of between 10 and 13°C
- a drain water temperature of between 37 and 40°C)

1.2 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') and a representative sample of the test data has been verified or cross-checked by an independent body.
- 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').

Further information regarding these routes can be found in Guidance Note 5 on the ETL product testing framework.

1.3 Where product testing has been witnessed by an independent witness, what was the name of the witness? (Please include contact details).

1.4 Where product testing has been carried out by an independent accredited laboratory:

a) What is the name of the independent accredited laboratory?

b) What is the laboratory's registration number?

1.5 Where product testing was done in-house and verified by an independent body, please provide details of the independent body. (Please include contact details).

2. Product type (Please tick one)

No Yes

2.1 What is the category of the product you are applying for? (tick one)

a) Standalone horizontal systems: consisting of a single instantaneous heat exchanger installed horizontally underneath the wastewater stream.

b) Standalone vertical systems: consisting of a single instantaneous heat exchanger installed vertically, connected to one or more wastewater streams.

c) Plant room systems: consisting of a single instantaneous heat exchanger, normally located in a plant room connected to multiple wastewater streams.

3. Product performance

No Yes

3.1 Is the product designed to recover heat from shower and bath drains, by means of an instantaneous heat exchanger for simultaneous hot water pre-heating?

3.2 For standalone systems, is the pre-heat run (the pipework running between the heat exchanger and the farthest point of use) no greater than 3 metres?

3.3 Do the maintain conditions comply with ACOP L8: 2013 "Approved Code of Practice and Guidance - Legionnaire's disease. The control of legionella bacteria in water systems"?

3.4 Does the product comply with the requirements of the Water Supply (Water Fittings) Regulations 1999, the Water Byelaws 2000 Scotland and Water Regulations in Northern Ireland (for example, by inclusion in the Water Regulations Advisory Scheme's Water Fittings and Materials Directory or by manufacturer/supplier declaration)?

3.5 Is the product designed to prevent backflow through the use of twin wall construction and venting - this can be demonstrated by compliance with BS EN 1717:2000 "Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow" or other equivalent international standards?

3.6 If the system is made from copper, is it designed and manufactured in compliance with one of the following or other equivalent international standards:

- a) BS EN 1057:2006+A1:2010 “Copper and copper alloys. Seamless, round copper tubes for water and gas in sanitary and heating applications (for copper tubes and fittings)”
- b) ASTM B88 - 16 “Standard Specification for Seamless Copper Water Tube” and ASTM B306 - 13 “Standard Specification for Copper Draining Tube (DWV)”.
- c) Other

3.7 Does the performance of the product meet the relevant performance thresholds set out in Table 1 below?

Table 1 **Performance thresholds for wastewater heat recovery systems**

| | Product Category | Heat Recovery Score |
|----|-------------------------------|---------------------|
| 1. | Standalone horizontal systems | ≥ 0.25 |
| 2. | Standalone vertical systems | ≥ 0.35 |
| 3. | Plant room systems | ≥ 0.40 |

“≥” means “greater than or equal to”

Where: Heat Recovery Score= Heat recovery efficiency (%) x Utilisation factor

Please refer to “ETL Technology Specification_WWHRs” for further guidance on the performance thresholds and calculations required.

4. 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://www.gov.uk/energy-technology-list>

- 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. If the model names contain any 'wildcards' in respect of cosmetic variations please email ETLquestions@carbontrust.com to check 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 feature information is located in the documentation.

- c) Evidence that the products meet 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.
 - iv) Where the test reports have not been prepared by an independent body, evidence that the accuracy of product performance data has been independently verified or cross-checked by an independent body.

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

- d) A Declaration of Conformity with Directives on product safety, including:
- i) Maintain conditions that comply with ACOP L8: 2013
 - ii) Comply with the requirements of the Water Supply (Water Fittings) Regulations 1999, the Water Byelaws 2000 Scotland and the Water Regulations in Northern Ireland
 - iii) Be designed to prevent backflow through the use of twin wall construction and venting – this can be demonstrated by compliance with BS EN 1717:2000 or other equivalent international standards.
- e) Evidence that a quality assurance system/procedures is/are in place to:
- i) Control the specification, design, manufacturing and testing of the products.
- f) Signed application checklist

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

5. 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 Energy Technology List.

A copy of the terms and conditions can be found at <https://www.gov.uk/energy-technology-list>

Signature: Date:

For more information:

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