Energy Technology List

Department for Energy Security & Net Zero

Product application checklist

Please complete in BLOCK CAPITALS

Refrigerated Display Cabinets

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	N/A	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 **Is the application for:** *(Please select one).*

a) A single unique product which has been tested in accordance with the criteria – in this case *go straight to 1.4*. ☐

b) A product which is based on the data for a 'representative model' which is not yet listed on the ETL (the representative model should be submitted at the same time as this application) – in this case the test data presented must be for a 'representative model', *go straight to 1.3*. ☐

c) A product which is based on the data for a 'representative model' which is already listed on the ETL – in this case *go to 1.2*. ☐

1.2 **What are the 'representative models':**

a) Product name and model number.

.....

b) ETL Product ID number.

.....

1.	Product testing and certification (continued)	N/A	No	Yes
1.3	**If the application is on the basis of a 'representative model' indicate the basis of its selection:** *(Please select those which apply).*			
	• **Cosmetic differences to the exterior** (any model may be selected to be the representative model).			☐
	• **Heaters** (door, trim etc.), fans, defrosts, lighting and other accessories (the model with the greatest direct electrical energy consumption (DEC) shall be the representative model).			☐
	• **Temperature level** (the model with the lowest temperature setting shall be the representative model).			☐
	• **Length** (Any model may be selected to be the representative model. All variants shall have a length that is within ±50% of the representative model length).			☐
	• **Cabinet depth** (the model with the greatest cabinet depth shall be the representative model).			☐
	• **Shelves** (the model with the lowest number of shelves shall be the representative model).			☐
	• **Front-opening height** (the model with the largest front-opening height (throat) shall be the representative model).			☐
	• **Type of doors** (Where some variants have sliding doors and some have hinged doors, the representative model should be equipped with hinged doors).			☐
	If two or more of the above variations are used, the rules set out above shall be combined when selecting the representative model.			
1.4	**Does the product have an appropriate Conformity Assessment mark?**		☐	☐
	If so, to which directive?			
1.5	**Has the product's performance been tested to EN 23953-2:2015 (for cabinets) and BS EN ISO 22044:2022 (for commercial beverage coolers), with no night blinds at Climate Class III (25°C, 60% RH)?**		☐	☐
	For 'remote type' cabinets only:			
	a) Was the heat extraction rate calculated according to EN 23953-2:2015 section 5.3.6.3.1, section (b) and EN 23953-2:015 section 5.3.6.3.2 method Ø24-deft?	☐	☐	☐
	For 'water loop' cabinets:			
	a) Was the cabinet tested in accordance with the method described in BS EN ISO 23953-2:2015 for remote indirect refrigerating systems?		☐	☐
	b) Was the inlet chilled water flow temperature set at 20°C?		☐	☐
	For 'chilled air' cabinets:			
	a) Was the cabinet tested in accordance with the methodology set out in the air-cooled cases testing procedure and calculation method document available here?		☐	☐
1.6	**Is the test report in accordance with BS EN ISO 23953-2:2015 (for cabinets) and BS EN ISO 22044:2022 (for commercial beverage coolers)?**		☐	☐
1.7	**How was the product(s) performance tested?** *(Please select one).*			
	a) In-house testing – Self-certified			☐
	b) Tested in the manufacturer's in-house laboratory, in accordance with a registered Quality Management System and a representative sample of the test data has been cross-checked and verified by an independent body (i.e. 'self-tested and verified or cross-checked by an independent body'). This testing route may be used for all categories except for water loop refrigerated display cabinets.			☐
	c) Tested in a laboratory either in house or on-site, witnessed by an independent body (i.e. 'witnessed testing').			☐
	d) Tested by an independent laboratory (i.e. 'independent testing').			☐
	e) Representative testing.			☐
	Further information regarding the first four routes can be found in on the ETL Testing Framework.			

1. Product testing and certification (continued)

	N/A	No	Yes

1.8 **Where product testing has been done in accordance with a registered Quality Management System, what is its registration number?**

.....

1.9 **Where a representative sample of the test data has been cross-checked and verified by an independent body:**

a) What is the name of the independent laboratory?

.....

b) What is the laboratory's registration number (where accredited)?

.....

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

.....

.....

1.11 **Where products have been tested by an independent accredited laboratory:**

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

.....

b) What is the laboratory's registration number?

.....

2. Product type

	No	Yes

2.1 **What type of cabinet is the product?** *(Please select one).*

a) 'Remote type'. ☐

b) 'Integral type' (also referred to as 'Plug-in'). ☐

c) 'Water loop' ☐

d) 'Chilled air' ☐

e) Commercial beverage coolers ☐

2.2 **What is the classification of the product according to its temperature range?**

L1 ☐ L2 ☐ L3 ☐ M0 ☐ M1 ☐ M2 ☐ H1 ☐ H2 ☐

K_1 ☐ K_2 ☐ K_3 ☐ K_4 ☐

2.3 **What is the product's 5 digit classification according to Annex A of EN 23953-1:2015?**

.....

2.4 **For commercial beverage coolers, please provide the Cabinet family code classification as per Annex A of BS EN ISO 22044:2022.**

.....

2.5 **What is the geometry/configuration of the cabinet under the classification system in BS EN ISO 23953-1:2015+A1:2012 Annex A?**

a) Vertical (V) cabinets (including VC1 to VC4, VF1, VF2 and VF4, YC1 to YC4, YF1 to YF4, and YM5 to YM8 units) ☐

b) Horizontal (H) cabinets (including HC1 to HC8, HF1 and HF3 to HF7 units ☐

2.6 **Does the product have a refrigerant with a Global Warming Potential (GWP) of ≤150?** ☐ ☐

Please provide the type of refrigerant and the GWP value.

.....

3. Product performance

No ☐ Yes ☐

3.1 What are the Energy Efficiency Index (EEI) of the product in percentage (%) and its corresponding Energy Class?

To be eligible, products must have an EEI that is less than the performance thresholds set out in Table 1 and Table 2 below.

3.2 Does the product have an EEI that is less than the performance thresholds set out in Table 1 and Table 2 below? ☐ ☐

Table 1 *Performance thresholds for refrigerated display cabinets*

	EEI performance thresholds (%)		
	T - class	**EEI (%)**	**Class**
Temperature Class	**L1**	<35	C
	L2	<50	D
	L3	<50	D
	M0	<30	C[1]
	M1	<35	C
	M2	<35	C
	H1	<35	C
	H2	<50	D

'<' means 'less than'

Table 2 *Performance thresholds for beverage coolers*

	EEI performance thresholds (%)		
	T - class	**EEI (%)**	**Class**
Temperature Class	**K_1**	<50	D
	K_2	<50	D
	K_3	<50	D
	K_4	<35	C

'<' means 'less than'

Where the Energy Efficiency Index (EEI) means an index number for the relative energy efficiency of a product expressed in percentage and calculated as defined by the Ecodesign for Energy-Related Products and Energy Information Regulations 2021 and the Ecodesign Commission Regulation (EU) 2019/2024.

3.3 For chilled air cabinets only, what is the Energy Efficiency Index (EEI) of the product to two decimal places?

To be eligible, products must have an EEI that is less than or equal to the performance thresholds set out in Table 3 below.

1 The EEI performance threshold (%) for M0 cabinets (as specified at <30) does not cover the full Energy Efficiency Class C (i.e., 20≤EEI<35) as defined by the Ecodesign for Energy-Related Products and Energy Information Regulations 2021 and the Energy Labelling Commission Regulation (EU) 2019/2018. Therefore, class C MO cabinets with EEI >30 are not eligible for the ETL.

3. Product performance (continued)

	No	Yes

3.4 For chilled air cabinets only, does the product have an EEI that is less than or equal to the performance thresholds set out in Table 3 below? ☐ ☐

To be eligible, products must have an EEI that is less than or equal to the performance thresholds set out in Table 3 below.

Table 3 *Performance thresholds for chilled air cabinets*

		EEI performance thresholds (kWh/day/m²)	
		Geometry/configuration	
		Horizontal	Vertical
Temperature Class	L1	≤ 10.00	≤ 11.50
	L2	≤ 8.50	≤ 11.00
	L3	≤ 8.00	≤ 11.00
	M0	≤ 6.00	≤ 7.50
	M1	≤ 5.00	≤ 6.00
	M2	≤ 4.50	≤ 5.50
	H1	≤ 4.00	≤ 5.00
	H2	≤ 4.00	≤ 5.00

'≤' means 'less than'

Where the Energy Efficiency Index (EEI) is defined as the ratio of the product's Total Energy Consumption (TEC) to Total Display Area (TDA) and where the geometry/configuration of the cabinet refers to the designation under the classification system in BS EN ISO 23953-1:2015 Annex A, as follows:

- *Vertical (V) cabinets comprise:*
  - *VC1 to VC4, VF1, VF2 and VF4, YC1 to YC4, YF1 to YF4, and YM5 to YM8 units.*
- *Horizontal (H) cabinets comprise:*
  - *HC1 to HC8, HF1 and HF3 to HF7 units.*

3.5 During testing, what was the measured value of the following parameters and do they meet the thresholds in Table 4?:

a) The highest temperature θah of the warmest M-package? ..... ☐ ☐

b) The lowest temperature θb of the coldest M-package? ..... ☐ ☐

c) The lowest temperature θal of the warmest M-package? ..... ☐ ☐

To be eligible, products must conform to one of the temperature classifications in Table 4 when tested to BS EN ISO 23953-2:2015 in climate class III (25°C, 60% RH).

Table 4 *Classification according to temperature*

Class	Highest temperature θ_{ah} of the warmest M-package colder than or equal to (°C)	Lowest temperature θ_{b} of the coldest M-package warmer than or equal to (°C)	Lowest temperature θ_{al} of the warmest M-package colder than or equal to (°C)
L1	-15	-	-18
L2	-12	-	-18
L3	-12	-	-15
M0	+4	-1	-
M1	+5	-1	-
M2	+7	-1	-
H1	+10	+1	-
H2	+10	-1	-

3.6 During testing, what was the measured value of the following parameters and do they meet the thresholds in Table 5?:

a) The highest temperature θah of the warmest M-can? ☐ ☐

b) Lowest temperature θb of the coldest M-can? ☐ ☐

c) Average temperature? ☐ ☐

To be eligible, products must conform to one of the temperature classifications in Table 5 when tested to BS EN ISO 22044:2022 in climate class III (25°C, 60% RH).

***Table 5** Classification according to temperature for commercial beverage coolers*

Class	Highest temperature θ_{ah} of the warmest M-can colder than or equal to (°C)	Lowest temperature θ_b of the coldest M-can warmer than or equal to (°C)	Average temperature colder than or equal to (°C)
K_1	+7.0	0.0	+3.5
K_2	+6.0	-1.0	+2.5
K_3	+1.0	-3.5	-1.0
K_4	+9.0	+1.0	+5.0

All commercial beverage cooler classes are as described in BS EN ISO 22044:2022, where the M-can temperature classes shall be measured with an accuracy of ±0.8°C.

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.

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 that the supplied documentation can evidence the conformity of the products against the requirements the ETL eligibility criteria. If the model names contain any 'wildcards' in respect of cosmetic variations please check with ETL 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 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 products 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 used comply 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 (where the in-house laborartory does not hold UKAS/ILAC accreditation). ☐
- v) Where representative testing has been used, please include details of selection method used, and evidence that the products covered by the representative model(s) are variants of the same basic design. ☐

Please refer to the ETL Testing Framework for further guidance on the submission of test results, and minimum information requirements.

d) A Declaration of Conformity with UK/EU Directives on product safety, including:

- i) An appropriate Conformity Assessment mark. ☐

e) Evidence that a quality assurance system/procedures is/are in place to:

- i) Control the specification, design, manufacturing and testing of the products. ☐
- ii) Ensure consistency of performance between individual production items of the same product. ☐

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 **here**.

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

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