



Preliminary rules
for consultation only

ProCold Product Competition

Professional and Commercial Refrigeration Equipment

– Competition rules –

Preliminary version for consultation, v3

With support from the European Union's Horizon 2020 research and innovation programme the ProCold project and its partners

ADEME – Agence De l'Environnement et de la Maîtrise de l'Energie (France), AEA – Austrian Energy Agency (Austria), Bush Energie (Switzerland), Guide Topten (France), Oeko-Institut – Institute for Applied Ecology (Germany), Politecnico Milano – Dipartimento di Energia (Italy), Quercus – National Association for Nature Conservation (Portugal), SEVEn (Czech Republic), and SSNC – Swedish Society for Nature Conservation (Sweden)

are inviting manufacturers of professional cold equipment to take part in a product competition for the most energy efficient product with climate friendly refrigerants available in the European market in the following categories and according to the specifications and rules provided below:

Vertical chilled storage cabinets

Beverage coolers

Small ice-cream freezers

Vertical chilled display cabinets

Refrigerated glass fronted vending machines

The competition will provide a basis for:

- **identifying** the professional and commercial cold products with the highest energy efficiency (and climate friendly refrigerant use),
- effectively **highlighting** and **increasing visibility** of such products among stakeholders,
- **promoting** their further market uptake, and
- **motivating** the development and offer of increasingly efficient energy-using products in the European market.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649293. The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.

Eligible products and test conditions

The following criteria must be fulfilled to participate in the competition:

- a) The product must be commercially available in Europe at least from 30 September 2016 to 31 August 2017 (no prototypes).
- b) Submitted product must be of type “plug-in” (“integral”)
- c) Product must be compliant with all European regulations, including Ecodesign requirements for the product category as of 1 July 2016 (as published in the Official Journal of the European Union or if not yet available draft regulation as referenced on the website topten.eu/pro-cold)
- d) The submitted product must fall in one of the following categories. Products in each product category are assessed according to the defined measurement standards and test conditions. The EEI is the core performance criterion based on which the winner in each category will be determined.

Please note: In case the final text of referenced regulations is not available on 31 August 2016, the draft version available at that time shall apply (available from topten.eu/pro-cold). In case the final version of a referenced standard is not available on 1 July 2016, the latest draft version available at that time shall be used.

i. Vertical chilled storage cabinets

- As defined in Energy Labelling Regulation (EU) 2015/1994 of 5 May 2015
- 1-door, 250 – 550 litres net volume
- Refrigerant with global warming potential (GWP) below 150 (e.g. R290, R600a, CO₂)
- Temperature class M1 according to EN 16825 (-1°C to +5°C)
- EEI determined at 30°C/55% RH based on measurements according to EN 16825

ii. Beverage coolers

- As defined in the Energy Labelling Regulation for refrigerated commercial display cabinets
- 250 – 550 litres net volume, vertical cabinet with one transparent door
- Refrigerant with global warming potential (GWP) below 150 (e.g. R290, R600a, CO₂)
- Temperature class K1 according to EN 16902 (0°C to +7°C, $\varnothing \leq +3.5^\circ\text{C}$)
- EEI determined at 25°C/60% RH based on measurements according to EN 16902

iii. Small ice cream freezers

- As defined in the Energy Labelling Regulation for refrigerated commercial display cabinets
- 150 – 500 litres net volume, with transparent lid
- Refrigerant with global warming potential (GWP) below 150 (e.g. R290, R600a, CO₂)
- Temperature class C1 according to EN 16901 (-18°C)
- EEI determined at 30°C/55% RH based on measurements according to EN 16901

iv. Vertical supermarket refrigerator cabinets

- As defined in the Energy Labelling Regulation for refrigerated commercial display cabinets
- Total display area (TDA) between 1 and 3 m²
- Refrigerant with global warming potential (GWP) below 150 (e.g. R290, R600a, CO₂)
- Temperature class M1 (-1°C to + 5°C) and TDA according to EN ISO 23953
- EEI determined at 25°C/60% RH based on measurements according to EN ISO 23953

v. Refrigerated glass fronted vending machines

- As defined in the Energy Labelling Regulation for refrigerated commercial display cabinets
- Category 2 “Refrigerated glass fronted can and bottle, confectionery & snack machines” according to EN 50597:2015
- Refrigerant with global warming potential (GWP) below 150 (e.g. R290, R600a, CO₂)
- Temperature class according to Category 2 machine type (12°C)
- EEI determined at 23°C/60% RH based on measurements according to EN 50597:2015

Submission requirements

All documents and required information must be submitted latest **by 30 September 2016** by using the application form provided on the topten.eu/pro-cold website. The application form will be available from 16 December 2015.

The following information and documents must be provided with the competition application for each product submitted:

- a) Name of the submitting company or trade mark, address and internet address
- b) Contact person of the submitting company (name, function/position, address, phone number, email-address)
- c) Applicable category, in which the product is competing
- d) Additional information on each product (if specified, according to requirements in the applicable regulations):
 - i. Brand
 - ii. Model (including alternative names for same model)
 - iii. Availability in European countries
 - iv. For beverage coolers, small ice cream freezers and vending machines: net volume of the appliance, which is the sum of net volumes of all compartments of the cabinet, expressed in litres.
 - v. For vertical supermarket refrigerator cabinets: total display area, which is the sum of the display areas of all compartments of the cabinet, expressed in square metres (m²)

- vi. For vertical chilled storage cabinets: the sum of the net volumes of all compartments functioning at chilled operating temperature, the sum of the net volumes of all compartments functioning at frozen operating temperature,
 - vii. EEI Class of the product
 - viii. Climate class
 - ix. Static and/or forced air cooling type
 - x. Refrigerant
 - xi. Energy consumption of the cabinet over 24 hours (E24h) and the annual energy consumption in kWh
 - xii. Product picture(s) (min 800 px wide)
- e) Full test report with results of all tests required to determine the EEI and with the EEI calculation based on the test results. EEI must be provided rounded to one decimal (xx.x). *The full test reports will not be made publicly available.*
- f) Signed statement “In case our submitted product is the top-performing product in its category, an appliance of the type and configuration submitted to the competition will be made available to an internationally recognised test laboratory, free of charge and other costs, at own risk and all shipping (incl. take back) costs covered by the submitting organisation. We allow for the free selection of an appliance from assembly line or warehouse by a ProCold representative or designated laboratory representative. The laboratory will perform an independent control test and calculation of EEI. The testing laboratory will be designated by ProCold and the direct testing costs borne by the ProCold Consortium.” (see “Winner identification and announcement”)

Winner identification and announcement

- a) Within each category, all submitted products will be ranked based on the value of their EEI.
- b) For each category the top performing product will be identified based on the lowest EEI, measured to three significant digits (one decimal xx.x).
- c) For the top performing product in each category according to this preliminary ranking an independent verification test will be performed. This will be done by a independent and internationally recognised test laboratory selected and designated by the ProCold Consortium. The respective manufacturer must be able and agree to provide at no cost a standard appliance of the same type from its assembly line or warehouse, randomly picked by a representative of the ProCold Consortium or designated other representative.
- d) The top performing product in each category will be recognised as winning product, if this laboratory test confirms the submitted EEI and previous ranking. The tolerance margins of the applicable Energy Labelling Regulation apply.
- e) Should this test provide an EEI higher than the second best performing product but within the tolerances established in the applicable (draft) Energy Labelling Regulation, then the second best performing product will be tested as well to establish a definitive order and winning product based on the measured and calculated EEI values. If the two (or more) highest ranked products have the same EEI rounded to three significant digits, several winners will be announced.
- f) Should any test produce higher EEI results outside the tolerance margins established in the applicable (draft) Energy Labelling Regulation, then the ProCold team will contact the respective manufacturer. The manufacturer will be provided with an opportunity to sponsor an additional definitive test to be completed by 31st January 2017 according to the rules established above (all costs for this additional test must be borne by manufacturer). The test must be per-

formed by an internationally recognised independent laboratory agreed by the manufacturer and the ProCold Consortium. Both a ProCold representative and the manufacturer can be present as witnesses to the test. Should the manufacturer decline this invitation, the product will be considered as withdrawn from the competition and from the topten.eu/pro-cold website.

- g) For the case that no products are submitted in a category or apparently much more efficient products are available in a category, the ProCold Consortium reserves the right to enter products into the competition on its own initiative and after the formal deadline. The basis for this would be a measurement report by a recognised laboratory according to the test conditions described above.

Use of competition entries and results

- a) Winning products will be announced and awarded during the EuroShop 2017 (5-9 March 2017) fair.
- b) The information provided will be used to populate the Topten lists. All submitted products meeting the Topten technical criteria will be listed on the Topten websites of the ProCold partners after the application deadline as long as all Topten criteria are fulfilled and the product is available in the respective country. Topten criteria can be consulted online at topten.eu/pro-cold and the national Topten websites. *Full test reports will not be made publicly available.*
- c) Manufacturers can use the competition results for marketing purposes. For this purpose, winners will receive a certificate and a visual recognition (mark) that they can use under specified conditions in their own communication.
- d) The partners of the ProCold Consortium plan to reference winning products in their own public communication (including a dedicated press release) and in their ongoing dialogue with stakeholders.

Disclaimer

- a) Should this be necessary, the ProCold Consortium may publish clarifications on competition rules and the ProCold product competition to topten.eu/pro-cold
- b) Should developments outside the influence of the ProCold Consortium or other reasons compromise a fair and orderly implementation of the product competition, the ProCold Consortium reserves the right to modify or append the above rules. Such changes or amendments will be announced to all known participants and interested suppliers and on topten.eu/pro-cold
- c) The ProCold project and its partners do not assume any responsibility or liability for damages or loss incurred as a result of participating in the competition.

Competition timeline



Next step

The ProCold Consortium seeks to ensure a fair competition among manufacturers for a relevant subset of the professional and commercial refrigeration appliance market. Before finalising the competition rules, all interested manufacturers are invited and given the opportunity to provide feedback on these preliminary competition rules by 31 December 2015 in writing to Rasmus Priess c/o Oeko-Institut at the following address: r.priess@oeko.de

Contact

For any questions on the competition please contact:

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Document version history

Version	Changes
ProCold_Product Competition_Competition Rules_preliminary_v3, 1 December 2015	Changed timeline for feedback on competition rules; corrected spelling mistakes
ProCold_Product Competition_Competition Rules_preliminary_v2, 11 November 2015	Corrected mistake in climate class of "Vertical supermarket refrigerator cabinets"
ProCold_Product Competition_Competition Rules_preliminary, 9 November 2015	Original version