



General Instructions of the PEP ecopassport[®] PROGRAM

**Product Environmental Profile
for Electrical, Electronic
and HVAC-R equipment**

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Foreword

The environmental quality of electrical, electronic and HVAC-R equipment - designated hereinafter by the generic term of equipment - is an increasingly important parameter for specifier choices and customer purchase decisions.

Regulatory activity reinforces this dynamic of the market in the European Union as elsewhere, and mobilizes the manufacturers of such equipment by including greater accountability in terms of:

- Control of environmental and energy impacts (ErP, EPBD),
- Limitation and traceability of hazardous substances (RoHS, Reach),
- Rigorous management of waste electrical and electronic equipment (WEEE).

In this context, it is essential that the environmental information requested by the market or the regulations satisfy the same strong and consensual reference framework which is a guarantee of their relevance and their reliability.

This is precisely the purpose of the PEP ecopassport® Program. It provides an international reference framework and procedures for HVAC-R, electrical and electronic equipment manufacturers to support their communication on the environmental characteristics of their products through the eco-declaration format entitled Product Environmental Profile (PEP).

The PEP ecopassport® Program was initiated by about ten professional organizations involving international industrial groups. Committed to making progress, the involvement of these sectors in the Program demonstrates their desire to progressively make available objective and transparent environmental data on the contribution of their products to environmental impacts, in respect of sector-based specificities.

Electrical, electronic and HVAC-R equipment covered by the Program include between others:

- Wires, cables and accessories for energy, signalling, telecommunications, data and precision,
- Solutions for electrical installations and home automation,
- Opening and closure management systems, heating, air conditioning and lighting equipment,
- Electronic material for people and buildings security,
- Self-contained emergency lighting systems,
- Routing and cables protection equipment,
- Process automation and industrial automation,
- Indoor, outdoor and public lighting,
- Equipment for renewable energy production,
- Electric heating equipment and electric water heaters,
- Heating and air conditioning equipment,
- Equipment used to produce domestic hot water,
- Ventilation and air treatment equipment.

1. Introduction

This document intends to clarify the rules for the development and operation of the ISO 14025-compliant international environmental declaration program called the PEP ecopassport® Program.

The PEP ecopassport® Program provides companies and professional associations in the electrical, electronic and HVAC-R sectors with a methodological and ethical reference framework, for communicating on the environmental characteristics of their products, using the PEP (Product Environmental Profile) format.

The rules of governance of this program, commonly referred to as the "General Instructions" present the voluntary procedures implemented to ensure that PEP issued by companies are correctly drawn up, verified and published in accordance with the requirements of standard ISO 14025 and document IEC / PAS 62545. These rules set out and implement the principles and general specifications of the normative documents concerning electrical, electronic and HVAC-R equipment.

These procedures are the result of open and consensual work initiated by the professions of the electrical, electronic and HVAC fields and capitalize on the eco-design and eco-declaration know-how they have acquired over the last fifteen years.

The PEP ecopassport® Program is developed by the P.E.P. Association, which is responsible for updating and publishing these General Instructions. Program documents are available on the PEP website [www.pep-ecopassport.org] which:

- provides practical and technical information necessary for the understanding and the proper application of Program procedures,
- offers access to PEP that are verified and registered in the Program.

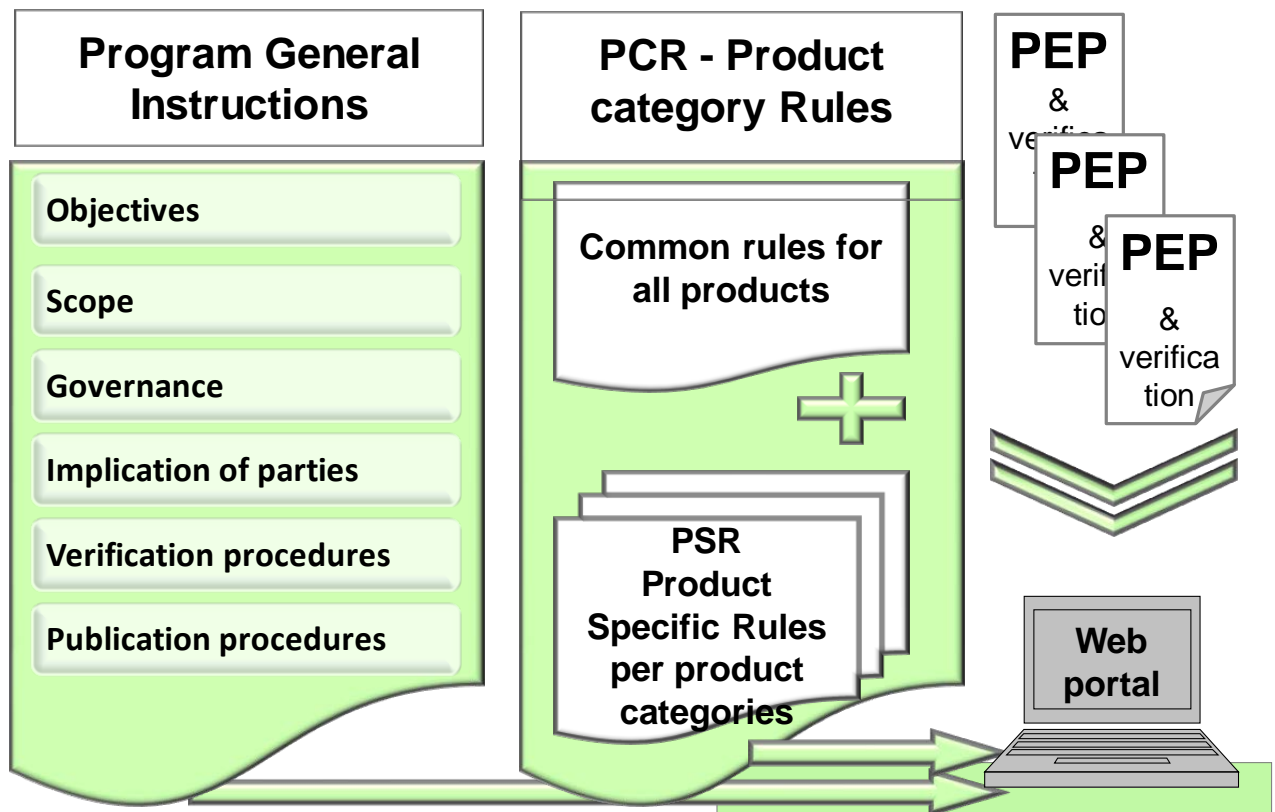
The PEP ecopassport® Program is based on a 3-tier document architecture:

- **Tier 1: General Program Instructions** that define the general framework of the approach and set out the procedures used to draft, verify and publish a PEP in accordance with ISO 14025,
- **Tier 2: PCR - Product Category Rules.** Drafting rules that provide a method of environmental data recovery and analysis, and the declaration format used to generate the data in the form of a PEP. These rules comprise:
 - a common core of Common Rules applicable to all equipment covered by the Program,
 - a set of supplementary rules specific to the product categories, called "Product-Specific Rules - PSR".

Thus, to produce an environmental declaration for a product, the common rules and where necessary the specific rules for the product category shall be applied. These documents are available to the public.

All the "Product Category Rules" and "Specific Rules" constitute the "PCR" for product categories covered by the Program as defined by ISO 14025. When used singly, "PCR" is used in the following sections to refer to all documents applicable to a product category. When used in the plural, "PCRs" are considered to mean the Product Category Rules and all the specific rules available in the Program.

- **Tier 3: The PEP** which declare the environmental characteristics of products, in accordance with the requirements of the PEP ecopassport® Program.



2. Scope

The PEP ecopassport® Program is specific to electrical, electronic and HVAC-R equipment used in construction, industry and infrastructures. This includes equipment with basic functions or complex functions such as electricity generators or photovoltaic modules, and may be extended to other closely-related products if relevant (e.g. conduits used in air conditioning systems).

In light of the nature of the equipment, their distribution network and specifications governing their installation, the PEP are intended for well-informed professionals. The PEP ecopassport® Program is therefore principally for producers who wish to publish environmental information for professional users of their products.

Nonetheless, the PEP ecopassport® Program is open to the consumer market whenever the products in question fall within the scope of the Program. In which case, the verification procedure shall be adapted accordingly.

This Program is international and implemented on a voluntary basis, without a specific geographical coverage. The language used in the Program is English. A French version is also required for reference documents such as general instructions, statutes, procedures or product category rules.

The implementation of the Program to all electrical, electronic and HVAC-R equipment involves the definition of common methods, supplemented by additional rules specific to product categories, in observance of the rigour and transparency requirements of this Program.

The PEP ecopassport® Program serves to define specific environmental data of a reference product by applying the PCR. It also serves to define generic data that are produced collectively. In this case, the rules specific to collective declarations as defined in the PCR and the editorial rules shall be applied.

3. Objectives of the Program

The PEP ecopassport® Program defines the principles used to develop product environmental profiles (PEP). It provides all the procedures required by any company to draw up, verify and publish PEP for international markets, in accordance with the requirements of ISO 14025. The PEP is produced on a voluntary basis and under the responsibility of the publishing producer.

The PEP ecopassport® Program meets several objectives:

- Provide relevant and reliable data on the environmental impacts of the equipment throughout its life cycle,
- Provide quantified, multi-criteria, objective and comparable environmental data, based on transparent and scientifically-validated methods to help clients and prescribers to choose between products,
- Support companies in electrical, electronic and HVAC-R sectors in controlling the environmental impacts of their products,
- Encourage the demand for products with lesser impact on the environment, especially within the scope of eco-responsible public procurement,
- Support compliance with upcoming regulatory requirements for environmental declarations or environmental product labelling, ensuring the conditions for fair competition are present.

The implementation of the PEP ecopassport® Program also aims to:

- Bring together players from electrical, electronic and HVAC-R sectors on a platform for exchange and expertise, to share robust and consensual elements of response to environmental and health issues regarding equipment,
- Facilitate the integration of the PEP data in public databases of product environmental characteristics both at national and European levels,
- In time, enable the consideration of the equipment's contribution to the environmental impacts of structures and installations where it is installed, to use in assessment tools and reference systems such as Building Environmental Quality, with the intention of controlling the overall impact of the construction on the environment¹ at the source,
- Share best practices in the analysis of equipment environmental impacts with other interested parties, such as those involved in the development of other environmental declaration programs.

4. Positioning of the PEP ecopassport® Program with regard to other programs

ISO 14025 standard encourages the harmonization of type III environmental declaration programs. To make the PEP ecopassport® Program a success, the stakeholders have looked closely at existing programs. It became necessary to develop a new international program meeting the following requirements:

- A scope specifically oriented towards electrical, electronic and HVAC-R equipment with rules adapted to their complexity and to the particularity of their environmental impacts,
- Relevant and consistent rules to facilitate life cycle assessments (LCA) of such equipment in strict compliance with ISO 14040 series requirements,

¹ As an example, the current Building Environmental Quality reference is being drafted at CEN TC 350 (EN 15978 & 15804).

- The necessity to provide tools to assess building environmental quality (BEQ) using data that can be aggregated with those provided by materials manufacturers and consistent with their own best practices, by relying on normative references that are consistent on a European level,
- Finally, compliance of the PEP approach initiated in 2002 with ISO 14025 is likely to facilitate the equal recognition of its procedures with those of other type III environmental declaration programs implemented in other countries in recent years.

5. Program audience and stakeholders

5.1. Audience for Program procedures

The General Program Instructions and the PCRs are mainly for:

- PEP publishers: companies or occupations who wish to provide environmental data about their products and more particularly the services involved in the design, development and promotion of the products,
- Data users: parties wishing to know how the data have been produced in order to understand and use them more effectively (project owners, prime contractors, installers, panel installers, integrators, property managers, designers, architects, design offices, etc.).

To ensure that the PEP are understood and correctly interpreted by all the interested parties:

- The General Instructions for the program and the corresponding PCRs are made available to any person. These documents are available on the Program website or from P.E.P. Association,
- P.E.P. Association promises to provide answers for all general questions about the PEP ecopassport® Program,
- Companies publishing PEP under the Program undertake to answer any technical, methodological, or commercial question concerning their PEP, while observing trade secrets and intellectual property rights.

5.2. Stakeholders

Organizations interested or involved in the development of the PEP ecopassport® Program and the use of the PEP may become members under the terms specified in Chapter 6 of this document. These parties are organizations of different categories, including:

- Electrical, electronic and HVAC-R equipment producers wishing to publish ISO 14025-compliant environmental declarations,
- Professional organizations representing these equipment producers who wish to make it easier for their members to adopt the Program procedures,
- Installers, OEM, panel installers and general contractors desiring data on the environmental characteristics of the equipment, to better design and build their installations,
- Specifiers and designers (design offices, architects, engineers) wishing to use the PEP to manage the environmental impact of their electrical installation or assess the environmental quality of their construction project,
- HVAC-R, electrical and electronic equipment distributors wishing to use the PEP to inform their clients,
- Applicable public authorities wishing to orientate supply and demand towards products with lesser environmental impact through the provision of environmental declarations,

- Normative organizations at international (IEC, ISO), European (CEN, CENELEC, ETSI) and national levels,
- Consumer and environmental organizations wishing to adopt the PEP approach.

Note: For reasons of neutrality and ethics, inspection bodies have no vocation to be members of the association where they play an essential role in the certification of procedures and the PEP verification process. Where necessary, a request from an inspection body will be examined by the Steering Committee, which may accept or reject the application.

5.3. Consultation of interested parties

Several elements certify compliance with ISO 14025 requirements concerning the consultation of interested parties:

- The IEC PAS 62545 document published in January 2008, used as a basis for the methodological principles and PEP environmental declaration format, was submitted for public consultation in 2007 and approved by the normative organizations in electrical and technical fields at international (IEC) and French level (UTE).
- The PCRs, as well as these Instructions available from P.E.P. Association or via www.pep-ecopassport.org, were subject to consultation throughout their development, by:
 - members of the representative professional associations involved in the Program as well as representatives of public authorities and certification organizations,
 - members of the French Standardization Committee ("Union technique de l'électricité" grouping all the parties interested or involved in the Program in the UF 111 commission),
 - experts and organizations consulted in the critical review (see Chapter 8).
- The implementation of a consultation system for PCRs under development (e.g. accessibility online, information to appropriate Program developers, etc.).

At each step, observations have been duly analysed and taken into account in the drafting of the General Program Instructions and Product Category Rules. Based on these elements, the consultation of interested parties in accordance with ISO 14025 for the development of the product category rules is deemed to be completed.

6. Organization and operation of the Program

The organization of the PEP ecopassport® Program is based on:

- An association which provides the legal structure and administrative operation of the PEP ecopassport® Program (see Statutes of the Association),
- Active or associate members, members of the P.E.P. Association,
- A Steering Committee which determines and drives the Program policy, with the support of an appointed Board,
- A Board responsible for managing the association,
- A Technical Committee responsible for ensuring observance and update of the technical rules, assisted by sector-based or thematic working groups.

6.1. Basic association structure

The P.E.P. Association provides the fundamental legal structure of the Program. It is the owner of the "PEP ecopassport®" trademark. It is the point of contact for parties interested in the PEP ecopassport® Program,

particularly with regard to collaboration with the normative, regulatory or environmental database management bodies.

With support from the Board, its President implements decisions taken at General Assembly meetings and represents the Association with stakeholders and external authorities.

The Association ensures the proper operation of the PEP ecopassport® Program and ensures administrative management in particular concerning:

- Legal responsibility and the promotion of the "PEP ecopassport®" trademark,
- Membership,
- The availability of reference documents and Program procedures,
- Registering verified PEP,
- Management of the websites or related Program databases.

Information about membership fees is provided on request.

6.2. Program members

Any organization defined as an interested party to the Program (cf. § 5.2) can be a Member of the Program.

The Steering Committee issues an opinion on any application by examining the relevance, due representation and motivation of the candidate to the scope (cf. §2) and to the objectives of the Program (see § 3).

To be an active member of the PEP ecopassport® Program, a party shall:

- Obtain the favourable decision of the Steering Committee,
- Undertake to comply with the objectives of the Program, as defined in the General Instructions and Members' Charter of P.E.P. Association,
- Pay their annual membership fee to the P.E.P. Association.

Via their representative, active members are invited to participate and vote in the General Assembly. They elect members of the Steering Committee from the candidates proposed. They may propose the nomination of experts to the Technical Committee.

The number of votes of each member can vary from 1 to 3 depending on whether the amount of its contribution C is greater than or less than values S1 and S2 as shown in the table below.

The S1 and S2 values are determined each year by the Association's Steering Committee.

Contribution value (C)	$C < S1$	$S1 \leq C < S2$	$C \geq S2$
Assigned votes	1	2	3

Each of the candidates for the Steering Committee nominates its representative. A member may exercise several mandates and have one or more delegates in different instances of the Association: Board, Steering Committee and Technical Committee.

The Steering Committee may accept associate members according to individually-defined procedures so they can access the Steering Committee or Technical Committee.

Note 1: When a member company has several in-house brands and consolidated subsidiaries, its membership in the P.E.P. Association applies to all of its subsidiaries and brands, except in case of independent brands. At the time of joining and when renewing its membership, the company declares any brands fully under its control and which as such, are covered by its membership.

Note 2: It is not necessary to be a member of the Association to register a PEP under the PEP ecopassport® Program. In this case, the PEP Program registration fee may be different from those applied to companies who are members of the Association.

6.3. Steering Committee

This Committee determines and applies the Program policy and ensures its implementation. It guarantees the rules of transparency and governance given in the General Instructions.

The Steering Committee may be invoked to arbitrate and settle a potential dispute, answer a question asked by an interested party, clarify and update certain procedures.

6.3.1. Missions of the Steering Committee

- Define the General Instructions for the PEP ecopassport® Program and ensure compliance with the rules of operation,
- Define budget and strategic directions for the PEP ecopassport® Program,
- Determine the Program communication policy and ensure the Program procedures are made available to the public,
- Facilitate the participation and information of interested parties through appropriate consultations and issue opinions on PEP ecopassport® Program membership applications,
- Certify the verifiers responsible for verifying that the PEP are consistent with Program requirements, on the proposal of the Technical Committee,
- From the Association membership, appoint the members of the Technical Committee and elect its Chairperson. The Chairperson of the Technical Committee is elected for a renewable term of 3 years,
- Appoint and mandate, among members of the Program, the representatives of the Program for external organizations where presence is considered necessary,
- Ensure the conformity of the PEP procedures with developments in the relevant statutory and normative texts with support from the Technical Committee,
- Validate the development and verification procedures for the PEP methodological and editorial rules, laid down in the PCRs,
- Validate the work of the Technical Committee, ensuring their consistency with the General Instructions for the PEP ecopassport® Program,
- Issue decisions and deal with disputes concerning non-observance of Program rules.

The Steering Committee may request the meeting of the Technical Committee as and when necessary. It may be invoked by the Technical Committee for arbitration or substantiated decisions and can seek qualified third-party expertise for any technical, scientific or ethical matter.

6.3.2. Appointment of the Steering Committee

The Steering Committee is elected at the General Assembly by the members of the Association for a renewable term of 3 years. One third of Steering Committee members are renewed every year. To enable this annual renewal, the first Steering Committee elected will propose the resignation of one third of its members at the end of the first and the second year of its exercise and there will be a new election each year.

To ensure democratic representation of all interested parties, one third of the seats on the committee are allocated to the representatives of 1) industrial companies, 2) professional associations and 3) other institutions respectively.

6.3.3. Composition and tasks of the Board

The Steering Committee elects from its active members: a Chairperson, three Vice-Presidents and a Treasurer. It also elects a Chairperson of the Technical Committee from its members or Association members not appointed to the Steering Committee. These six representatives constitute the Board.

Note: The Chairperson of the Technical Committee may not be elected to the Steering Committee. He/She may attend the Steering Committee and the Board but without voting rights.

The role of the Board is to:

- Prepare and implement the Steering Committee and General Assembly decisions,
- Ensure suitable management of the P.E.P. Association,
- Using its proposals and guidance, drive the Program policy defined by the Steering Committee.

6.4. Technical Committee (COTEC)

Under the supervision of its Chairperson, the Technical Committee develops the technical rules and procedures that govern the generation and verification of environmental declarations.

In particular:

- It is responsible for the Product Category Rules in observance of the technical, scientific and ethical requirements inherent to the Program and it issues opinions on new or updated PSR and verification procedures, while proposing the use of a critical review panel as and when necessary (c.f. 8.2),
- It supervises the qualification and deployment of the network of accredited Program verifiers, ensuring the required skill level and in full respect of ethical rules,
- It informs and reports progress of its work to the Steering Committee, through its Chairperson. It is empowered to deal with any prospective issue useful to the development of the Program.

6.4.1. Missions of the Technical Committee

The Technical Committee's mission is to:

- Define and update the Product Category Rules applicable to all equipment falling within the scope of the Program,
- Develop and update the specific additional rules or PSR according to the diversity of equipment categories covered by the Program, on the proposal of the sectors concerned,
- Define the procedures governing the operation of the Program,
- Ensure the quality of environmental data available on the Program databases,
- Ensure technical coordination between the PEP ecopassport® Program website and other sites or product environmental declaration databases, e.g. the European database ELCD or construction products database (INIES in France),
- Ensure the collection, analysis and follow-up of comments from interested parties on the PCRs,
- Monitor normative, regulatory and scientific developments relating to product environmental declarations and associated methodologies, to maintain the relevance of procedures,
- Under the authority of the Steering Committee, propose developments to improve the operation of the Program and databases, the relevance or the technical quality of reference documents and the creation of new PSR,

- Ensure the observance of the verifier accreditation procedures and the quality of review reports. In case of errors or failures, the Technical Committee may require additional justifications and involve the Steering Committee which decides on the next steps to take,
- Improve the review procedures by driving the network of verifiers and collating best practices,
- Identify and implement procedures to detect and prevent non-conformities in environmental declarations.

The Technical Committee works on a consensus basis. To accomplish its missions, the Technical Committee may establish and dissolve working groups as necessary, in particular to update the Product Category Rules (PCR) or to create additional Product Specific Rules (PSR). It may also use the expertise of qualified third parties, non-members of the Program. Where these requests involve paid services, it involves the Steering Committee which is the sole body empowered to decide on the steps to take.

6.4.2. Appointment of the Technical Committee

The Technical Committee members are appointed by the Steering Committee from amongst Program members who apply. The Steering Committee ensures that all sectors are suitably represented in the Technical Committee and ensures that the candidates have adequate skills in the fields of action of the Technical Committee.

The Chairperson of the Technical Committee is elected by the Steering Committee for a renewable term of 3 years. He/She ensures that opinions or decisions made by the Technical Committee are consensual. The Chairperson ensures collegial representation of the members of the Technical Committee to the Steering Committee and Board. He/She participates in deliberations on their behalf and reports on the decisions taken.

6.5. Accredited verifier club

The role of the accredited verifier club is to use the experience of its members to ensure the practicality and harmonization of PEP verifications while maintaining a sufficient level of requirement to ensure the reliability of data featured in the PEP.

It is not a decision-making body. It makes proposals to the Technical Committee for Program rules.

6.5.1 Missions of the accredited verifier club

The missions of the accredited verifier club are to ensure the observance of best practices as defined by ISO 14071 - Life Cycle assessment - Critical review processes and reviewer competencies - Additional requirements and guidelines to ISO 14044.

More specifically, its role is to:

- Ensure the reliability and robustness of the PEP verification system under the procedures implemented by the Program (General Instructions for the PEP ecopassport® Program and PEP drafting rules),
- Recommend to the Technical Committee and to the Steering Committee any developments to the Program serving to maintain the degree of requirements concerning the accreditation or renewed accreditation of verifiers and PEP verification procedures,
- Alert the Technical Committee and recommend any changes to the Program deemed necessary in light of verifier feedback.

6.5.2 Composition and operation of accredited verifier club

The accredited verifier club comprises verifiers approved by the PEP ecopassport® Program, with up-to-date certification.

The club is chaired by the Chairperson of the Club. This person is appointed from the members of the Technical Committee. The appointed Chairperson shall be an Accredited Verifier and must have taken part in the Technical Committee for at least two years.

The members of this club meet at least once a year to complete the missions entrusted to them. A global activity report is presented at the annual General Assembly, based on individual activity reports from each verifier.

6.6. Respect of Program Charter

6.6.1 Members of the Association

All members of the Association undertake to uphold its values. In particular, they will promote and will emphasize the values related to environmental issues and sustainable development through environmental declarations they make for their equipment and products.

These values are listed in a Charter (document AP0001- Member charter) that all members shall sign and observe.

6.6.2 Non-members of the association filing PEP declarations

Non-members of the association who wish to file PEP declarations shall comply with the regulations concerning trademarks and right of use of the logo (document AP0007- Right of use of trademark and logo).

7. Methodological framework

7.1. Definition of product categories procedure

To ensure consistency and reliability of environmental data published in the PEP, common rules govern their method of production, evaluation and representation. Some specifications may differ from one product category to another, without impairing the overall consistency of the PEP ecopassport® Program.

All these rules are laid down in:

- The Product Category Rules - PCR document, which contains rules common to all equipment falling within the scope of the PEP ecopassport® Program.
- The documents specific to product categories "Product Specific Rules - PSR".

These common rules - laid down in the Product Category Rules - PCR document - include:

- The completeness of environmental impact assessment, in terms of inventory flow and life cycle stages, in accordance with the ISO 14040 standard series,
- The use of scientifically recognized LCA tools and databases,
- The respect of methodological rules applicable to life cycle analysis on equipment (e.g.: cut-off rule, use scenario),
- The representation of these impacts as environmental indicators and other information provided in the PEP,

- The principles of transparency, clarity and traceability of data and assumptions in the data collection, analysis and representation phases.

The characteristics that justify the creation of additional rules specific to certain categories of products are mainly:

- The product function(s),
- The technology and its type of application,
- The conventional reference lifetime taken into account during the life cycle analysis,
- The conventional usage scenarios during the product use phase.

Specific additional rules already established in the PEP ecopassport® Program, apply to all companies wishing to generate a PEP on a product falling within the scope of these specific additional rules.

The development or revision of the PCR and PSR are subject to public consultation open to all interested parties and in which companies in the sector concerned are invited to participate. All these documents are reviewed according to the procedures of clause 7.5.

Once approved, these rules are then made publicly available by the Program.

All or part of the common or specific rules may be revised by decision of the Steering Committee and on the favourable opinion of the Technical Committee. Whenever necessary, the Steering Committee performs a review according to the conditions of paragraph 7.5.

This is done at any time at the proposal of the Technical Committee, or according to expansion requests or needs of the market. At least one periodical review of the PCRs shall be done every five years.

The extension of the PCRs to new product categories may involve the creation of product specific rules (PSR) for these new product categories. Prior to the creation of new product specific rules, the Technical Committee reviews the applicability of the existing PSR. When necessary, the Technical Committee redefines or specifies the scope of the PSR defined for product categories already covered.

If needed, any company or organization may propose the development of a PSR. After acceptance by the Steering Committee, it shall become a member of the Association and will direct the development of the PSR according to the specific rules development procedure for a product category (Document AP0017-PSR development and adoption procedure).

The company or organization submits their proposals for new Product Specific Rules (PSR) to the Technical Committee. The Committee may then invite other companies or professional organizations to contribute to the development of a PSR.

Note: Where necessary the P.E.P. Association covers the cost of the critical review up to an amount corresponding to the review and/or translation of usual PSR (definition of functional unit, use scenario, etc.). This amount is defined by the Steering Committee if necessary. The residual amount shall be paid by the organization requesting the creation of the PSR.

7.2. Functional unit and reference flow

Information provided in each PEP is the result of a Life Cycle Assessment (LCA) performed on the reference flow corresponding to a functional unit. This assessment consists in calculating all the environmental impacts (e.g. energy consumption, emissions of greenhouse gases, depletion of natural resources, etc.) generated throughout the entire product life cycle relative to this functional unit and over a reference life time.

The functional unit is the quantified expression of a service provided by the reference product considered in the LCA. In the PEP ecopassport® Program, the functional unit includes:

- The identification of the function(s) of the product under analysis. These function(s) shall describe the service provided to the user,
- The performance or requirement level of the function(s) identified,
- The reference lifetime of the product.

The functional unit is therefore linked to the function(s) provided by the reference equipment as considered in the installation where it is operated. The reference lifetime is linked to the duration of use of the equipment and the conventional use scenario. It is necessary to provide a clear and explicit description of the functional unit in each PEP. Insofar as possible, the functional unit is defined by reference to the names and definitions provided in IEC/ISO international standards applicable to each product category.

7.3. Data management procedure

PEP conforming to the Program are the result of LCA compliant with ISO 14040 series standards. Data on input and output flows used to perform these LCA shall be clearly documented in the LCA report for the PEP and made available on request for all interested parties, in full respect of applicable data confidentiality.

Geographical, time-related and technological data representation is an essential quality criterion of the PEP. Within the framework of the PEP ecopassport® Program, life cycle inventory data (LCI) - whether generated by the company or made available by a supplier of LCI datasets - shall meet a number of common technical specifications detailed in the PCR.

All scientifically renowned environmental impact calculation software and databases are eligible for the PEP ecopassport® Program. It is incumbent on the company which wishes to publish PEP under the Program to ensure and demonstrate their compliance with the reference standards and requirements stipulated in the PCR.

While ensuring trade secrecy and industrial property rights, the PEP issuer shall comply with the PEP verification requirements proposed to register the PEP in the Program (document AP0002 - PEP verification procedure).

The company shall include documentation and where necessary provide justification in the LCA report of:

- The origin of primary data used for the LCA (readings on production sites, measurements),
- The origin of secondary data (life cycle inventory databases, version, date),
- Bibliographic references,
- Modelling assumptions,
- Expert evaluations,
- The suitability of data for the purpose of the analysis,
- Production models for electricity, raw materials, transport, etc.,
- Assumptions and scenarios proposed by the company for the life cycle stages.

7.4. Selection procedure for predetermined parameters and environmental impacts

The selection of predetermined parameters and environmental impacts to be documented in the PEP is the result of a thorough and open analysis initiated by electrical, electronic and communication industries since

the end of the 1990s. This analysis has led to the selection of the following criteria for the purposes of this Program:

- Current and future regulatory requirements relating to electrical, electronic and HVAC-R equipment,
- Different market needs in terms of environmental data,
- International scientific advancements in environmental impact calculation methods,
- Eco-design practices in place or under consideration in electrical goods producers and HVAC companies,
- The expectations of other stakeholders,
- The need to facilitate the comparison and the harmonization of PEP with other environmental declaration formats,
- Accessibility and relevance of the data on environmental aspects and impacts specific to equipment covered by the Program.

7.5. Critical review and modification of Product Category Rules - PCR

The critical review of the PCR is conducted by a panel of third-party experts who are:

- independent of the companies and professional organizations who are members of the Program,
- not involved in the development of the PCR.

The critical review serves to demonstrate that the PCR was developed in accordance with ISO 14025 and the ISO 14040 series of standards. This panel therefore guarantees the respect of ISO 14025 and ISO 14040 reference standards. Through justified opinions and substantiated review reports, it ensures quality and respect of definition procedures. The PCR includes the results of the critical review.

The PSR developed are also subject to a third-party critical review process and the Technical Committee decides on their compliance with the Program, based on the results of the critical review.

In accordance with ISO 14025, draft PCR can be consulted in the Program (via the website) so that all interested parties may submit their observations.

The critical review is valid for 5 years from the date of publication of the critical review report. Between two periodic critical reviews, as part of the update of the technical rules for the PEP ecopassport® Program, the Steering Committee may request a new critical review panel offering the same skills and qualities.

So each time the PCRs are updated (e.g. changes in environmental impact indicators, the creation of a new PCR or the revision of an existing PCR), on the recommendation of the Technical Committee, the Steering Committee organizes a critical review so that modified or added elements are reviewed and judged compliant with the ISO 14025 and ISO 14040 standards.

The evolution of Product Category Rules - PCR is not retroactive and does not question the compliance of the PEP registered under the Program prior to the update of the document. The version number of the Product Category Rules - PCR in force at the time of publication of the PEP is indicated on the PEP.

The updated PCRs are applicable from the time of publication and their application is required within 6 months of the date of publication.

***NOTE:** Therefore, when a new PCR is created or an existing PCR is revised, an overlap period of 6 months is granted, during which a PEP may be registered either under the existing PCR or the new version.*

8. Validity and conformity of PEP

8.1. General

The verification rules are defined in accordance with ISO 14025 and 14020 standards, as well as the 14040 series. The reference documents for the Program are accessible on www.pep-eco-passport.org

PEP registered under the PEP ecopassport® Program and published by companies are deemed to be compliant with these standards when they are:

- Produced in accordance with the corresponding requirements in the applicable PCR, previously third-party certified as part of periodical and ad hoc critical review procedures,
- Verified by an independent verifier accredited by the Program according to the procedures and listed in the "List of PEP verifiers" (document AP0006 - List of accredited verifiers),
- Observant of editorial rules (document AP0008 - Editorial rules).

The company may therefore insert the PEP ecopassport® logo on the PEP, which certifies compliance of the document with ISO 14025 according to the conditions defined in the Program. The PEP ecopassport® logo is a registered trademark, of which the right of use is subject to the conditions defined in document AP0007 - Right of use of trademark and logo.

Environmental declarations published by PEP ecopassport® Program members prior to the opening of registrations and compliant with the requirements of procedure AP0011 [- Derogations for historical PEP] shall be deemed compliant with the Program.

8.2. PEP verification

PEP verification consists in confirming through tangible evidence that the requirements specified in the PCRs have been met throughout the PEP development process.

This verification is based on the **PEP Verification Procedure** (document AP0002 - PEP verification procedure). It is conducted internally or externally of the organization publishing a PEP, by a verifier previously accredited by the Program and independent of the process of developing the PEP under verification.

The verifier shall:

- Complete the document RE0001 - PEP Verification Report, corresponding to the check-list of verification points, observations and possible points for improvement, and reporting the conformity or non-conformity of each of the listed points,
- Issue a "Declaration of Conformity" for the PEP (document RE0002 - Declaration of Conformity) confirming that the declaration complies with the Program.

The verification report shall be archived at least for 10 years by the company. It is available for consultation by any interested party on written request sent to the company.

The PEP is valid for a period of 5 years after the date of publication of the PEP indicated in the title block.

8.3. Competency of verifiers

The conditions of verification of PEP verifier competency are given in document AP0003 - PEP verifier accreditation procedure. As part of their mission, verifiers will receive confidential data that they undertake not to disclose.

9. Registration and publication of PEP

9.1. Registration of PEP

To be compliant under this Program, PEP shall be duly registered under the PEP ecopassport® Program. It is not necessary to be a member of the Association to register a PEP. In this case, the PEP Program registration fee may be different from those applied to companies who are members of the Association.

To register a PEP under the Program, the applicant shall submit it for registration by completing the registration request (RE0003).

The PEP must be:

- Correctly numbered and drafted according to the editorial rules (AP0008 - Editorial rules),
- Accompanied by document RE0001 Verification Report and its corresponding check-list of verification points, completed by a currently valid independent verifier,
- Accompanied by its Declaration of Conformity (RE0002),
- Accompanied by its Registration request (RE0003).

The applicant shall pay the registration fee and specify the conditions of publication on the Program website www.pep-ecopassport.org (to be indicated in document RE0003 - PEP registration request).

9.2. Publication of PEP

PEP compliant with the Program rules and duly registered are published by the P.E.P. Association after manufacturer approval.

Any communication concerning the compliance of a PEP with this Program shall be certified. It can be verified through the provision of the administrative approval and the corresponding registration number.

In the event the conditions above are not met, a procedure to settle disputes between the interested parties involved in the Program shall be undertaken by the Steering Committee.

In the event of non-observance of the conditions set by the Steering Committee for the settlement of the dispute, the P.E.P. Association may withdraw the PEP concerned from its website and undertake suitable legal proceedings.

9.3. PEP updates and expiry

At any time, a company may decide to update one of its PEP. For the PEP to remain valid, this shall be performed no later than 5 years after the date indicated in the title block. To ensure this, the company shall apply procedure AP0008 which qualifies minor and major modifications. If the company so decides, updates to existing rules, whether Product Category Rules or product category specific rules, may involve updates to existing PEP.

Once the validity date is past, and without further update of the data in the PEP by the company, the PEP is declared to have expired under the Program. In this case, the Association continues to publish it but with an explicit indication that the document has exceeded its validity date.

10. Data confidentiality

Data included and published in the PEP are not confidential in general. Nonetheless, the Program authorities undertake not to reveal information reported as confidential by a company or an interested party to third parties that do not need this information for the purposes of the Program (preparation, verification and publication of the PEP).

Other data may be used for the exclusive purposes of statistical and anonymous consolidation for the needs of the Program by the P.E.P. Association after companies have given express authorization.

11. Program resources

The development and operation of the Program rely on:

- The involvement of the members, in particular in the Steering Committee and in the Technical Committee,
- Program resources generated from:
 - Annual membership fees or exceptional contributions from the Program members,
 - Public or private subsidies,
 - Contributions to Program operational costs, in particular PEP registration fees,
 - Any other resource not prohibited by applicable laws and regulations.

The amounts allotted are determined to ensure a balanced budget. These resources are fully allocated to the operation and development of the PEP ecopassport® Program. Operations that require financial resources are approved by the Steering Committee which can determine specific allocations on a case-by-case basis to fund sector-based expenditure.

12. Periodical review

The Steering Committee can announce the review of all or part of these General Instructions and the Product Category Rules (PCR) including any specific rules.

These documents are reviewed at least every 5 years. Their update is completed transparently with stakeholders, and if necessary with the assistance of a critical review panel.

Appendix 1: Glossary and References

Glossary:

ELCD: European reference Life Cycle Database, managed by the JRC

ISO 14025: Environmental labels and declarations – Type III environmental declarations - principles and procedures

ISO 14040: Environmental Management - Life Cycle Assessment - Principles and framework

LCA: Life Cycle Assessment

PCR: Product Category Rules - used to define product categories

PEP: Product Environmental Profile

PSR: Rules specific to each of the product categories. Part of the PCR.

Reference documents cited:

AP0001 – Member charter

AP0002 – PEP verification procedure

AP0003 – PEP verifier accreditation procedure

AP0006 – List of accredited verifiers

AP0007 – Right of use of trademark and logo

AP0008 – Editorial rules

AP0011 – Derogations for historical PEP

AP0017 – PSR development and adoption procedure

RE0001 – PEP Verification Report

RE0002 – Declaration of Conformity of a PEP

RE0003 – PEP registration request