



**SLOVENSKI STANDARD**  
**oSIST prEN 18074:2024**  
**01-junij-2024**

---

**Razogljichenje industrije - Zahteve in smernice za sektorske nacрте prehoda**

Industrial decarbonization - Requirements and guidelines for sectoral transition plans

Industrielle Dekarbonisierung - Anforderungen und Leitlinien für sektorale Übergangspläne

Décarbonation de l'industrie - Exigences et lignes directrices pour les plans de transition sectoriels

**Ta slovenski standard je istoveten z: prEN 18074**

---

[oSIST prEN 18074:2024](https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024)

<https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024>

**ICS:**

03.100.70	Sistemi vodenja	Management systems
13.020.20	Okoljska ekonomija. Trajnostnost	Environmental economics. Sustainability
13.020.40	Onesnaževanje, nadzor nad onesnaževanjem in ohranjanje	Pollution, pollution control and conservation

**oSIST prEN 18074:2024**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 18074**

April 2024

ICS 13.020.40; 03.100.70; 13.020.20

English Version

## Industrial decarbonization - Requirements and guidelines for sectoral transition plans

Cadre et lignes directrices pour les plans de transition  
sectoriels pour la décarbonation de l'industrie

Industrielle Dekarbonisierung - Anforderungen und  
Leitlinien für sektorale Übergangspläne

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 467.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning** : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

<https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024>



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>	<b>Page</b>
European foreword .....	4
Introduction .....	5
1 Scope.....	7
2 Normative references.....	7
3 Terms, definitions and abbreviated terms.....	7
3.1 Terms and definitions .....	8
3.1.1 Terms relating to greenhouse gases .....	8
3.1.2 Terms relating to greenhouse gases inventory process .....	11
3.1.3 Terms relating to organizations, interested parties and verification .....	12
3.1.4 Terms relating to sectoral transition plans .....	13
3.2 Abbreviated terms.....	17
4 Principles.....	18
4.1 General.....	18
4.2 Inclusiveness .....	18
4.3 Do no significant harm.....	18
4.4 Just transition.....	18
4.5 Risk-based approach .....	19
4.6 Comparability comprehensiveness.....	19
4.7 Assurability or verifiability.....	19
4.8 Credibility.....	19
4.9 Relevance.....	20
5 Method .....	20
5.1 Framework.....	20
5.1.1 Geographical boundary .....	20
5.1.2 Sectoral boundary .....	20
5.1.3 Base year.....	21
5.1.4 Time horizon and decarbonization targets.....	21
5.1.5 Collaboration with interested parties.....	22
5.2 Sectoral inventory .....	24
5.2.1 General.....	24
5.2.2 GHG emissions and GHG removals and energy consumptions.....	24
5.2.3 Value chain .....	25
5.2.4 Market for intermediate and final products .....	25
5.2.5 Circularity.....	26
5.2.6 Process and technological characteristics.....	27
5.2.7 Decarbonization levers.....	27
5.2.8 Physical climate risks.....	29
5.3 Scenarios.....	30
5.3.1 General.....	30
5.3.2 Transition universe.....	30
5.3.3 Technological pathway .....	30
5.3.4 Market pathway.....	31
5.3.5 Scenario.....	31
5.4 Action plan .....	32

<b>5.5 Report</b> .....	<b>33</b>
<b>Annex A (informative) Example of an action in the action plan</b> .....	<b>35</b>
<b>Annex B (informative) Reference to the just transition</b> .....	<b>37</b>
<b>Bibliography</b> .....	<b>39</b>

**iTeh Standards**  
**(<https://standards.iteh.ai>)**  
**Document Preview**

[oSIST prEN 18074:2024](https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024)

<https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024>

**prEN 18074:2024 (E)**

## **European foreword**

This document (prEN 18074:2024) has been prepared by Technical Committee CEN/TC 467 “Climate Change”, the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

**iTeh Standards**  
**(<https://standards.iteh.ai>)**  
**Document Preview**

[oSIST prEN 18074:2024](https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024)

<https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024>

## Introduction

As industry represents around 20 % of GHG emissions [1], it is at the centre of many discussions regarding a decarbonization transition.

Many industrial sectoral roadmaps and companies' commitments for transition have been published but without governance or methodological baseline. This gap is questioning the credibility of those documents. A great number of initiatives work on establishing standards for entity transition plans (ETP) compatible with 1,5°C or 2°C pathways in line with the Paris Agreement. It seems relevant to ensure the consistency of entity transition plans with sectoral transition plans (STP), established with a common and recognized method.

Furthermore, the review of the European industrial strategy by the European Commission in 2021 mentions the necessary development of transition plans for more resilient, digitalized and sustainable industrial infrastructure and systems. Again, a common method shared between sectors would give credibility and would harmonize those transition plans and strengthen its credibility among stakeholders through better validation and verification. No standardized method is available yet for sectoral transition plans which leads to differences in the exercises.

Finally, requirements and recommendations to develop a sectoral transition plan would facilitate an adequate answer from industrial sectors to the carbon neutrality challenge. It would also question sectoral transformation regarding all the value chains able to respond to a same use. Therefore, production and consumption ways could be progressively transformed.

Climate change is one of the most pressing challenges that our world faces. Scientific assessments through the Intergovernmental Panel on Climate Change (IPCC) reports have shown that many of the worst consequences of climate change can be avoided by limiting global warming to 1,5 °C above pre-industrial levels. Scenarios assessed by the IPCC indicate that limiting warming to 1,5 °C, with no or limited temperature overshoot, requires achieving at least net zero global carbon dioxide (CO<sub>2</sub>) emissions in the early 2050s, along with deep and sustained global reductions in other greenhouse gas emissions (GHGs) [2] [3]. These scenarios also show that the earlier and faster emission reductions occur, the lower peak warming and the lower the likelihood of overshooting warming limits.

This document should be interpreted and used in line with its purpose and scope to promote the highest possible climate ambition.

The 2015 Paris Agreement [4] states the importance of achieving a global balance between human-caused emissions by sources and human-led removals by sinks in the second half of the 21st century, taking into account varying capabilities in different parts of the world, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. This document therefore includes recommendations on just transition (more details available in Annex B).

The results of a sectoral transition plan include:

- a sectoral inventory as defined in 5.1;
- several decarbonization scenarios composed of several decarbonization trajectories including a technological and a market pathway and investment planning;
- an action plan for the implementation of the scenarios exposed before.

This document aims to help an organization to elaborate a credible, qualitative, and ambitious sectoral transition plan.

This document aims to fill the gap exposed previously. The development of an EN is of particular importance to standardize practices, strengthen trust between sectoral transition plan's interested

**prEN 18074:2024 (E)**

parties and guarantee the quality of the transition plan. It will facilitate the replicability of sectoral transition plans for industry decarbonization and their dissemination.

In this document, the following verbal forms are used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission;
- “can” indicates a possibility or a capability.

**iTeh Standards**  
**(<https://standards.iteh.ai>)**  
**Document Preview**

[oSIST prEN 18074:2024](https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024)

<https://standards.iteh.ai/catalog/standards/sist/72df5d54-f56a-4d01-91e8-28d10dc5b233/osist-pren-18074-2024>



## 1 Scope

This document specifies the requirements and recommendations relative to the construction of a sectoral transition plan for industry decarbonization.

This document does not specify the requirements for the construction of a roadmap of single industrial company's transition plan (a plant or a group), however a sectoral transition plan can be used as a reference in an entity transition plan

This document is intended to be used by organizations, including national and public bodies, trade associations, federations, companies and NGOs that wish to establish or monitor sectoral decarbonization plans.

This document is climate-programme neutral. If a climate programme is applicable, requirements of this programme are additional to the requirement of this document.

This document does not address legal and other obligations relating to climate action.

In this document, either natural or technological sequestrations occur inside the geographical and sectoral boundaries considered in the sectoral transition plan. Otherwise, they are excluded.

In this document, considering its energy consumptions and its cost, the direct air capture and storage technology (DACs) is not considered relevant and is excluded from the sectoral transition plan.

Carbon offsets are excluded from this document.

NOTE Carbon offsets are intended as be understood as *Emissions reduction or removal* resulting from an action outside the geographical and sectoral boundary used to counterbalance the sector's residual emissions"

## 2 Normative references iTeh Standards

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 14064-1, *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (ISO 14064-1)*

EN 19694 (all parts), *Stationary source emissions – Determination of greenhouse gas (GHG) emissions in energy intensive industries*

## 3 Terms, definitions and abbreviated terms

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

**prEN 18074:2024 (E)****3.1 Terms and definitions****3.1.1 Terms relating to greenhouse gases****3.1.1.1****greenhouse gases****GHG**

gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds

Note 1 to entry: For a list of GHGs, see the latest Intergovernmental Panel on Climate Change (IPCC) Assessment Report.

Note 2 to entry: Water vapour and ozone are anthropogenic as well as natural GHGs but are not included as recognized GHGs due to difficulties, in most cases, in isolating the human-induced component of global warming attributable to their presence in the atmosphere.

[SOURCE: EN ISO 14064-1:2018, 3.1.1]

**3.1.1.2****greenhouse gas source****GHG source**

process that releases a greenhouse gas (3.1.1.1) into the atmosphere

[SOURCE: EN ISO 14064-1:2018, 3.1.2]

**3.1.1.3****greenhouse gas sink****GHG sink**

process that removes a greenhouse gas (3.1.1.1) from the atmosphere

[SOURCE: EN ISO 14064-1:2018, 3.1.3]

**3.1.1.4****greenhouse gas emission****GHG emission**

release of a greenhouse gas (3.1.1.1) into the atmosphere

[SOURCE: EN ISO 14064-1:2018, 3.1.5]

**3.1.1.5****greenhouse gas removals****GHG removal**

withdrawal of a greenhouse gas (3.1.1.1) from the atmosphere by GHG sinks (3.1.1.3)

Note 1 to entry: These include enhancing biological sinks of CO<sub>2</sub> and using chemical engineering to achieve permanent removal and storage.

Note 2 to entry: Carbon capture and storage (CCS) from industrial and energy-related sources, which alone does not remove CO<sub>2</sub> in the atmosphere, can reduce atmospheric CO<sub>2</sub> if it is combined with bioenergy production (BECCS).

Note 3 to entry: Storage permanence relates to risk of reversal. Storage is generally considered at low risk of reversal if no GHG is re-released for at least 100 years after storage or within the lifespan of the GHG being counterbalanced.

Note 4 to entry: Anthropogenic GHG removal refers to the withdrawal of GHGs from the atmosphere as a result of deliberate human activities.

[SOURCE: EN ISO 14064-1:2018, 3.1.6, modified - the notes to entry have been added]

### **3.1.1.6 carbon dioxide capture and storage CCS**

process in which a stream of carbon dioxide (CO<sub>2</sub>) from industrial or energy-related sources is separated (captured) and transported to a storage location for permanent isolation from the atmosphere

Note 1 to entry: Sometimes it is referred to as carbon capture and storage.

[SOURCE: IPCC glossary available at <https://www.ipcc.ch/sr15/chapter/glossary/>, modified - The terms “relatively pure” and “conditioned, compressed” have been removed, “long-term isolation” has been replaced with “permanent isolation”]

### **3.1.1.7 biomass**

material of biological origin, excluding material embedded in geological formations and material transformed to fossilized material

Note 1 to entry: Biomass includes organic material (both living and dead), e.g. trees, crops, grasses, tree litter, algae, animals, manure and waste of biological origin.

[SOURCE: EN ISO 14064-1:2018, 3.3.1]

### **3.1.1.8 bioenergy**

energy derived from any form of biomass or its metabolic by-products

[SOURCE: IPCC glossary available at <https://www.ipcc.ch/sr15/chapter/glossary/>]

### **3.1.1.9 bioenergy with carbon dioxide capture BECCS**

carbon dioxide capture and storage (CCS) technology applied to a bioenergy plant

Note 1 to entry: Depending on the total emissions of the BECCS supply chain, carbon dioxide (CO<sub>2</sub>) can be removed from the atmosphere.

[SOURCE: IPCC glossary available at <https://www.ipcc.ch/sr15/chapter/glossary/>]

### **3.1.1.10 greenhouse gas emission factor GHG emission factor**

coefficient relating *GHG activity data* (3.1.2.1) with the *GHG emission* (3.1.1.4)

[SOURCE: EN ISO 14064-1:2018, 3.1.7]

### **3.1.1.11 greenhouse gas removal factor GHG removal factor**

coefficient relating *GHG activity data* (3.1.2.1) with the *GHG removal* (3.1.1.5)

**prEN 18074:2024 (E)**

[SOURCE: EN ISO 14064-1:2018, 3.1.8]

**3.1.1.12****direct greenhouse gas removal****direct GHG removal**

*GHG removal* (3.1.1.5) from a GHG source owned or controlled by an *organization* (3.1.3.2) inside the sectoral boundary

[SOURCE: EN ISO 14064-1:2018, 3.1.10, modified – “Inside the sectoral boundary” has been added]

**3.1.1.13****direct greenhouse gas emission****direct GHG emission**

GHG emission (3.1.1.4) from GHG sources (3.1.1.2) owned or controlled by the organizations (3.1.3.2) inside the sectoral boundary

Note 1 to entry: This document uses the concepts of equity share or control (financial or operational control) to establish organizational boundaries.

[SOURCE: EN ISO 14064-1:2018, modified - “Inside the sectoral boundary” has been added]

**3.1.1.14****indirect greenhouse gas emission****indirect GHG emission**

GHG emission (3.1.1.4) that is a consequence of an organization’s operations and activities, but that arises from GHG sources (3.1.1.2) that are not owned or controlled by the organizations (3.1.3.2) within the sectoral boundary

Note 1 to entry: These emissions occur generally in the upstream and/or downstream chain.

[SOURCE: EN ISO 14064-1:2018, 3.1.11, modified - “Within the sectoral boundary” has been added]

**3.1.1.15****global warming potential****GWP**

index, based on radiative properties of GHGs (3.1.1.1), measuring the radiative forcing following a pulse emission of a unit mass of a given GHG in the present-day atmosphere integrated over a chosen time horizon, relative to that of carbon dioxide (CO<sub>2</sub>)

[SOURCE: EN ISO 14064-1:2018, 3.1.12]

**3.1.1.16****carbon dioxide equivalent****CO<sub>2e</sub>**

unit for comparing the radiative forcing of a GHG (3.1.1.1) to that of carbon dioxide

Note 1 to entry: The carbon dioxide equivalent is calculated using the mass of a given GHG multiplied by its global warming potential.

[SOURCE: EN ISO 14064-1:2018, 3.1.13]

**3.1.1.17****climate change mitigation action**

human intervention to reduce emissions or enhance the sinks of greenhouse gases